

Amphenol Circular Interconnects

Products for Military, Aerospace and Harsh Environments

- Aluminum
- Stainless Steel/Firewall
- Composite
- Printed Circuit Board Connectors
- High Speed Connectors
- Fiber Optics
- Full Complement of Contacts/Cables
- EMI Filter/Transient
- Accessories
- Backshells

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix I/Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



CONTACT US:

Amphenol Aerospace
ELAMINE
DAY 19

US: 800 678-0141
Phone: (800)678-0141
A
N: 678-0141



ABOUT AMPHENOL AEROSPACE:

Amphenol Aerospace, a Division of Amphenol Corporation, is one of the largest manu-



CUSTOMIZED INTERCONNECT PACKAGES:

Amphenol Aerospace offers a wide range of customized interconnect packages, including:

- High Speed
- Fiber Optics
- Contacts
- Connectors
- Cables

QUALITY ASSURANCE:

Amphenol Aerospace has been awarded the AS9100 certification, a testament to our commitment to quality and reliability.

AMPHENOL AEROSPACE'S PHILOSOPHY:

Amphenol Aerospace's philosophy is centered on providing high-quality, reliable products and services to our customers.

FOCUS

INNOVATION

RESPONSIVENESS

38999

III

HD

Duallok

II

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SJT

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26482
Matrix 2

83723 III
Matrix Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

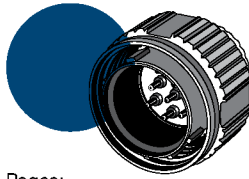
22992
Class 1

Back-
Shells

Options
Others

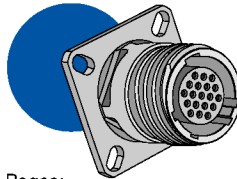
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

MIL-DTL-38999 Series III, TV



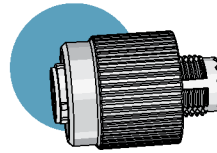
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HD38999 High Density



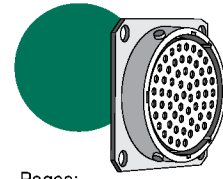
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DualOK



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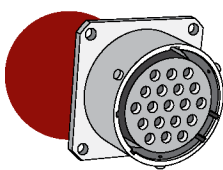
MIL-DTL-38999 Series II, JT



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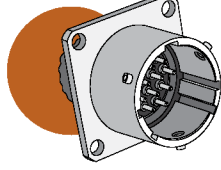
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

MIL-DTL-38999 Series I, LJT



Pages:
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 10-17 Insert Arrangements
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SJT



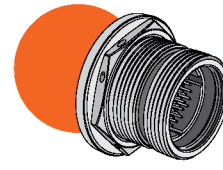
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38999 & SJT Accessories



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Aquacon

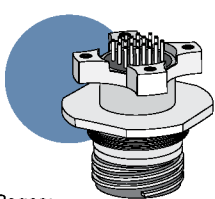


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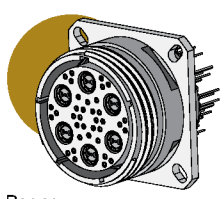
- 26482
- Matrix 2

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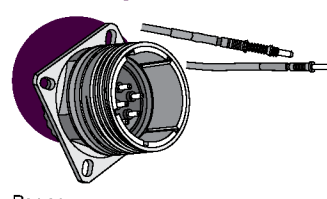
PCB



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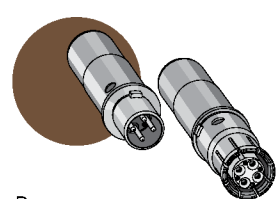
High Speed Interconnects

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Contacts



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 224-260 MIL-DTL-38999 Contacts
 261-264 MIL-DTL-5015 & MIL-DTL-22992 Contacts
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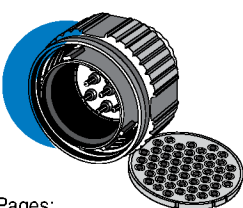
- 83723 III
- Matrix I Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

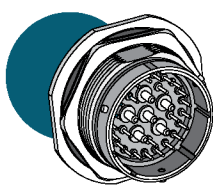
- 22992
- Class I

EM/EMP Filter Protection



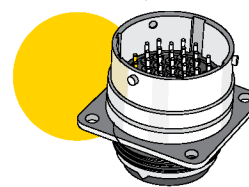
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MIL-DTL-26482 Series 2, Matrix



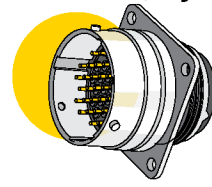
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MIL-DTL-83723 Series III, Matrix



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MIL-DTL-83723 Series III, Pyle



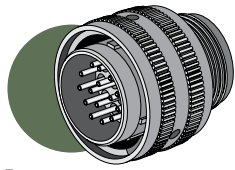
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- Back-Shell

- Options
- Others



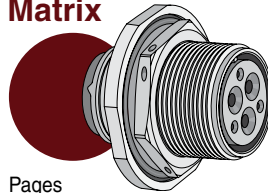
MIL-DTL-26500 Pyle



Pages



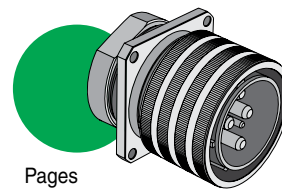
MIL-DTL-5015 Crimp Rear Release Matrix



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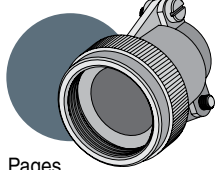
MIL-DTL-22992 Class L



Pages



Backshells

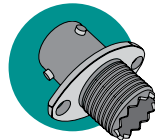


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ACES

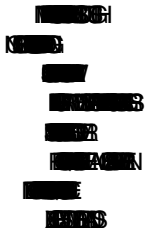
Options Others



Pages



NEW/FEATURED PRODUCTS:



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class L

Back-Shells

Options Others

New/Featured

DualOK

NEW High Vibration Connector
38999 Series III Type
Connector for High Vibration



New High Vibration Dualok Connector

in high performance connector
the most severe vibration
EPPAGES

New/Featured

HD38999 High Density

HD38999 (High Density, Crimp)
Plugs and Receptacles
Featuring Double Flange
Receptacles



4HE (F01
SINGLESPEED
SHE (HAS
more contacts, it still performs to
EPPAGES

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

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26482
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Release
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22992
Class I

Back-
Shells

Options
Others

New/Featured



New Hybrid Lanyard Release Plugs
(Metal inside shells & Composite, lower profile outer sleeves)

New Hybrid Lanyard Breakaway Fail Safe connector with a composite thermoplastic outer operating sleeve for greater durability.

This new hybrid breakaway is the breakaway of choice for the Navy F-18 Program. Amphenol's hybrid lanyard design offers greater durability over D38999 aluminum and composite designs because of its ability to handle abuse taken after weapons release.

Other advantages include:

- Lower profile compared to full metal breakaway Fail Safe connectors
- Less weight See page 45 for more information.

New/Featured

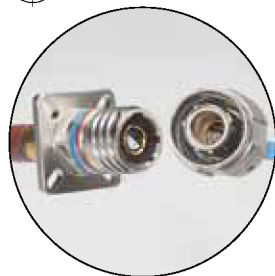


New MIL-DTL-26500 Pyle Commercial Design with PCB Contacts:

- Intermateable with standard 26500 plugs
- Non-removable PC tail contacts
- Special shell geometries and clinch nut available
- Single piece insert
- Ideal for high volume cost sensitive applications

See page 419 for more information or contact Amphenol Aerospace.

New/Featured



New "Split-Pair" Quadrax Contacts & Cable Assemblies for MIL-DTL-38999, Series III Circulars for use with CAT6A Type Cable

Amphenol Aerospace offers the high performance interconnect solution for CAT6A type cable.

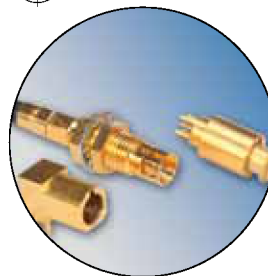
Some Features & Benefits:

- Overall higher bandwidth than standard CAT5E quadrax
- Enhanced crosstalk performance (compared to standard quadrax) due to compatibility with shielded twisted pair cables
- Can be used for a variety of high speed applications beyond current quadrax designs. See page 227-230 for more information.



MIL-DTL-38999 Series III Connectors with "Split-Pair" Quadrax Contacts for use with CAT6A Type Cable

New/Featured



Micro D-Twinax Transition Adapters

Micro D-Twinax Transition Adapters

Amphenol now offers differential twinax transition adapters in smaller sizes that provide matched impedance interconnection to PCB boards. Our unique push-pull quick disconnect adapter See page 238-240 for more information.

New/Featured



Micro D-Twinax Transition Adapters

MIL-DTL-38999 Series III, Double Flange Receptacles for PCB Mounting

Amphenol double flange receptacles for PCB board mounting offer a convenient method of PC board attachment.

The advantages of Attaching directly to the connector shell are:

- Offers improved grounding
- Relieves stress on contact solder joints
- Eliminates the need for additional hardware

Durmalon Connector Finish

Alternative to Cadmium

“Durmalon”- Amphenol’s answer to EU RoHS/ELV/Cadmium Free Restrictions.

Commercial, industrial & military markets are rapidly moving away from hazardous materials such as Cadmium (Cd) & Hexavalent Chrome (Cr6+). Amphenol is offering an alternative finish & process that complies with all customer requirements tied to these specifications. MIL-DTL-38999 Rev L has established 3 new service classes as alternative finishes addressing these requirements for Cadmium replacement. Amphenol is using this and European Union Directive 2002/95/EC RoHS (Regulation of Hazardous Substances) as a guide to qualification for all domestic, global, commercial, industrial, & military specifications requiring the reduction or elimination of these hazardous materials.

Amphenol has qualified Durmalon, with internal part number coding “DT” finish, which meets or exceeds the 38999 designated class “T” finish, Nickel Fluorocarbon Polymer. Durmalon is also EU RoHS-compliant.

We also continue to develop additional platings such as “DX”, (Durmalon, heavy duty final plate) to support JSF, F-35 Program. The DX plating is intended to meet higher corrosivity Sulfur Dioxide (SO2)/salt fog requirements of JSF. Also under development is “DZ” (Zinc Nickel) to meet D38999 class “Z” plating. Please consult Amphenol Aerospace for availability as we continue testing.

Cadmium has been applied to numerous components of land, sea and air weapon systems and NASA systems for many years as it provides sacrificial corrosion protection and excellent lubricity for threaded applications. However, cadmium is a toxic metal and a known carcinogen.

The Defense Logistics Agency (DLA) has added three cadmium alternative finishes to MIL-DTL-38999, Rev L (and other connector specs):



Amphenol’s Durmalon

Durmalon, like Olive-Drab Cadmium plating (Class W), meets 500 hours of dynamic salt spray, combined with 500 mating cycles and meets specified millivolt drop shell-to-shell conductivity. Of all platings tested, Durmalon has been proven to meet this requirement and also Potassium Formate-Deicer fluid testing performed by Boeing.

DURMALON™
Alternative to Cadmium



Applications

Interest for non-hazardous alternative finishes is gaining momentum & many customers are currently using Durmalon for a broad number of applications. Durmalon combines the unique lubrication and anti-wetting properties of PTFE with corrosion resistance, high conductivity and EU RoHS compliance in a non-reflective finish.

Testing

Amphenol Aerospace has performed extensive testing on numerous alternative platings with the most consistent performer being the Durmalon. For specific applications please contact Amphenol Aerospace.

Requirements	Cadmium	Durmalon™	Zinc Nickel	Alumiplate SM	Zinc Cobalt	Stainless Steel	Electroless Nickel
Coupling Torque Post 500 hr. salt	■	■	■	■	NA	■	NA
Shell to Shell Conductivity <1 millivolts							■
<2.5 millivolts	■	■	■	■			
<10 millivolts	■	■	■	■	■	■	
Cycles of Durability 500 mates	■	■	■	■	TBD	■	■
Salt Spray 48 hours	■	■	■	■	■	■	■
Dynamic 500 hours	■	■	■	■		■	
Temperature Rating 175°C	■	■	■	■	■	■	
200°C		■				■	■
Non-Reflective	■	■	■	■	■		
EU RoHS/ELV Compliant*		■	■	■	■	■	■
Non-Magnetic	■	■	■	■	■	■	■
Available in Composite	■	■	■	■	■		■
De-icing Fluid**		■				■	

* Meets EU RoHS/ELV maximum concentration values (MCV) of 1000 ppm (0.1% w/w) or (0.01% w/w) per homogenous material.

** Potassium Formate/Acetate based de-icing fluids.

Notice: Specifications are subject to change without notice.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells
- Options Others

Series	Series	Series	Military	MIL-DTL-27599	Hermetics				Service Rating	Total Contacts	Contact Size											
Series	Series	Series	Military	JT/LJT Solder	Crimp	Class H	Class Y	TV*	Service Rating	Total Contacts	Contact Size											
JT II	LJT I	TV III	III	JT/LJT Solder	Crimp	Class H	Class Y	TV*	Service Rating	Total Contacts	23 HD	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)	
		7-D2							M	2		2										
		7-D3							M	3		3										
		7-D4							M	4		4										
8-2				P					M	2					2							
8-3				X	NA	P	P		M	3					3							
	9-3			X																		
		9-5							Grounded	1												1
8-6				X	X	P	P		M	6				6								
	9-6			X	X	P	P		M	7				7								
	9-7			X					M	7												
		9-9							N	9	9											
	9-22			X					I	2					2							
8-35					X	P	P		M	6			6									
	9-35	9-35	A35		X	P	P	P	M	6												
8-44					X	P	P		M	4				4								
	9-44				X				M	4												
		9-94			◆				M	2												
8-97				X					M	4				2		2						
8-98				S	X	P	P		I	3					3							
	9-98	9-98	A98	X	X	P	P	P	I	3												
	11-2★	11-2★	B2		X	P**			I	2						2						
10-4					3				I	4					4							
	11-4	11-4		X	S/2				I	4												
10-5				X	X	P	P		I	5					5							
	11-5	11-5	B5	X	X			P	I	5												
	11-6			S					I	6												
10-13				X	X	P/S	P/S		I	6												
	11-13			X	X	P/S	P/S		M	13				13								
		11-19							N	19	19											
10-35					X	P/S	P/S		M	13			13									
	11-35	11-35	B35		X	P/S	P/S	P	M	13												
		11-54			X	◆			II	4		4										
10-98				X	X	P/S	P/S		I	6					6							
	11-98	11-98	B98	X	X	P/S	P/S	P	I	6												
10-99					X	P	P		I	7												
	11-99	11-99	B99		P	X		P	I	7					7							
12-3				X	X	◆	P	P	II	3						3						
	13-3								II	3												
12-4				X	X	P	P		I	4						4						
	13-4★	13-4★	C4	X	X	P	P	P	I	4												
12-8				X	X	P	P		I	8						8						
	13-8	13-8	C8	X	X	P	P	P	I	8												
		13-13							I, Fiber Optic	4						2**	2					
12-22					X	P/S	P/S		M	22				22								
	13-22			X	X	P/S	P/S		M	22												
		13-26			2				M	8		2										6
		13-32							N	32	32											
12-35					X	P/S	P/S		M	22			22									
	13-35	13-35	C35		X	P/S	P/S	P	M	22												
		13-63			◆				I	4							2	2				
12-98				X	X	P/S	P/S		I	10						10						
	13-98	13-98	C98	X	X	P/S	P/S	P	I	10												
14-4					2				I	4												
	15-4	15-4			2	◆			I	4							4					
14-5				X	X	P	P		II	5												
	15-5★	15-5★	D5	X	X	P	P	P	II	5							5					

X Completely tooled.

- Majority of tooling is completed (contact Amphenol Aerospace for availability).
- ◆ Not tooled for 02-R.
- P Available with Pin contacts only
- S Available with Socket contacts only
- P/S Available with Pin contacts or Socket contacts
- ★ Ground plane proprietary option available. Arrg. 9-5 is exclusively ground plane type.
- Not Mil-Qualified.
- ◇ 21-75 is Mil-Qualified with twinax contacts only.

Note: MS connector 21-75 is supplied with size 8 twinax.
Commercial connector 21-75 is supplied with size 8 coax.

■ HD designates High Density 38999 Series III insert patterns which use size 23 contacts only. Not rated over 175°C.

- * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
- ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic section for more information.
- *** For use in MIL-STD-1760 applications (see pages 43 & 44).
- † For RG 180/U and RG 195/U cables only.
- †† Size 8 Coax and Twinax are interchangeable.
- (2) Not Tooled for RP or 02RE
- (3) Pin inserts only, not tooled for RP or 02RE (Consult Amphenol Aerospace for avail.)
- (5) MS Connector 21-79 has provision for two size 8 coax contacts. Coax contacts are not supplied unless specified by customer.

MIL-DTL-38999, Series I LJT, II JT, III TV, HD

Insert Availability and Identification Chart



Series	Series	Series	Military	MIL-DTL-27599 JT/LJT Solder	Crimp	Hermetics			Service Rating	Total Contacts	Contact Size											
JT II	LJT I	TV III	III			Class H	Class Y	TV*			23 HD	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)	
14-15				X	X	P	P		I	15					14	1						
	15-15	15-15	D15	X	X	P/S	P/S	P	I	15					14	1						
14-18				X	X	P/S	P/S		I	18					18							
	15-18	15-18	D18	X	X	P/S	P/S	P	I	18					18							
14-19■				X	X				I	19					19							
	15-19	15-19	D19		X	P	P	P	I	19					19							
14-35					X	P	P		M	37		37										
	15-35	15-35	D35		X	P/S	P/S	P	M	37		37										
14-37				X	X	P	P		M	37			37									
	15-37			X	X	P	P		M	37			37									
		15-55■							N	55	55											
14-68■					2	P	P		1	8						8						
	15-68■			X	3				1	8						8						
14-97■					X	P	P		I	12					8	4						
	15-97	15-97	D97	X	X	P	P	P	I	12					8	4						
	17-2	17-2	E2		X	+			M	39		38										1
16-6					X	P	P		I	6							6					
	17-6	17-6	E6		X	P	P	P	I	6							6					
16-8				X	X	P	P		II	8					8							
	17-8★	17-8★	E8	X	X	P/S	P/S	P	II	8					8							
16-13■					2				I	13					13							
	17-13■				2				I	13					13							
	17-22■	17-22★■			+				Coax	4							2			2		
	17-25■				2				M	24		22								2		
16-26				X	X	P/S	P/S		I	26					26							
	17-26	17-26	E26	X	X	P/S	P/S	P	I	26					26							
16-35					X	P	P		M	55		55										
	17-35	17-35	E35	X	X	P	P	P	M	55		55										
16-42					X				M	42				42								
	17-42■				P				M	42				42								
		17-52■			X	+			M	2												2
16-55				X	X	P/S	P/S		M	55			55									
	17-55			X	X	P/S	P/S		M	55			55									
		17-60■			X				I/Coax	10		8								2		
		17-73■							N	73	73											
16-99				X	X	P	P		I	23					21	2						
	17-99	17-99	E99	X	X	P	P		I	23					21	2						
		19-AD■			X	+			Inst.	17					16							1
18-11				X	X	P	P		II	11					11							
	19-11★	19-11★	F11	X	X	P	P	P	II	11					11							
	19-18	19-18	F18		2	X			M	18		14										4
18-28				X	X				I	28					26	2						
	19-28■	19-28	F28	X	X	P	X		I	28					26	2						
18-30				X	X				I	30					29	1						
	19-30■			X	X	P			I	30					29	1						
		19-31■			X				M	15		12					1			2		
18-32				X	X	P/S	P/S		I	32					32							
	19-32	19-32	F32	X	X	P/S	P/S	P	I	32					32							
18-35					X	P	P		M	66		66										
	19-35	19-35	F35		X	P	P	P	M	66		66										
18-53				X	X				M	53				53								
	19-53■				P				M	53				53								
18-66				X	X	P	P		M	66			66									
	19-66				X	P	P		M	66			66									
	19-67■			X	3	S	S		M	67			67									
18-68■					2				I	18					18							
	19-68■	19-68			3	S			I	18					18							
18-96■					2				I	9					9							
		19-88■							N	88	88											
20-1					X	P	P		M	79												
	21-1				X	P/S	P/S		M	79												

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999	Series	Series	Series	Military	MIL-DTL-27599 JT/LJT Solder	Hermetics				Service Rating	Total Contacts	Contact Size										
	JT II	LJT I	TV III	III	JT/LJT Solder	Crimp	H	Y	TV*			23 HD	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
III	20-2					X				M	65											
HD		21-2■				X																
Dualok	20-11■					3				I	11											
II		21-11★	21-11★	G11		X																
I	20-16					X	X	P/S	P/S		II	16										
SJT		21-16★	21-16★	G16	X	X	P	P	P		I	25										
Accessories		21-25■									I	27										
Aquacon		21-27■			X						I	27										
Herm/Seal			21-29■			X					I	27									4	4
PCB	20-35					X	P	P			M	79		79								
		21-35	21-35	G35		X	P/S	P/S	P		I	39										
	20-39				X	X	P	P	P		I	39										
		21-39	21-39	G39	X	X	P	P	P		I	39										
	20-41				X	X	P	P	P		I	41										
		21-41	21-41	G41	X	X	P/S	P/S	P		I	41										
HIGH SPEED		21-75★	21-75★◇	G75		2	X			N	M	4									4	(4)
Fiber Optics		21-79■	21-79■			2	X			II		19									2	(5)
Contacts Connectors Cables			21-121■							N		121	121									
	22-1					X	P/S	P/S			M	100										
		23-1				X	P	P			M	100			100							
	22-2				X	X	P	P			M	85										
		23-2			X	X	P	P			M	85										
		23-6★■	23-6★■			P					M	6										6
EMI Filter Transient	22-14■					2	◇				I	14										
		23-14■	23-14■			2	◇				I	14										14
	22-21				X	X	P	P			II	21										21
		23-21★	23-21★	H21	X	X	P	P	P		I	32										
	22-32				X	X	P	P			I	32										
		23-32■			X	P					I	34										
		23-34■			X						I	34										
26482 Matrix 2	22-35					X	P/S	P/S			M	100		100								
		23-35	23-35	H35		X	P	P	P		I	53										53
	22-53■					P					M	53		40								9
83723 III Matrix I Pyle		23-53	23-53	H53	X	X	P/S	P/S	P		I	53										
			23-54■			X					M	53										
	22-55				X	X	P	P			I	55										
		23-55	23-55	H55		X			P		II	16										16
		23-97■			X						II	11										11
26500 Pyle		23-99■			X						N	151	151									
	24-1					X	P	P			M	128										
		25-1				X	P	P			M	100										
	24-2					X					M	100										
5015 Crimp Rear Release Matrix		25-2				X	P	P			I	56										48
		25-4	25-4	J4		X			P		M Twinax	99		97								2
		25-7■	25-7	J7		X					Twinax	8										8
		25-8★	J8			◇					N	11										9
22992 Class I		25-11***	J11			2	◇				M	42		36								6
		25-17■				◇					I	19										19
	24-19■					X	P	P			N	30										10
		25-19★	25-19★	J19		X			P													13
		25-20■	25-20***	J20		2	◇															4

- X Completely tooled.
- Majority of tooling is completed (contact Amphenol Aerospace for availability).
- ◇ Not tooled for 02-R.
- P Available with Pin contacts only
- S Available with Socket contacts only
- P/S Available with Pin contacts or Socket contacts
- ★ Ground plane proprietary option available. Arrg. 9-5, 26-62 is exclusively ground plane type.
- Not Mil-Qualified.
- ◇ 21-75 is Mil-Qualified with twinax contacts only.
- * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).

- HD designates High Density 38999 Series III insert patterns which use size 23 contacts only. Not rated over 175°C.
- ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic Section for more information.
- *** For use in MIL-STD-1760 applications (see pages 43 & 44).
- † For RG 180/U and RG 195/U cables only.
- †† Size 8 Coax and Twinax are interchangeable.
- (2) Not Tooled for RP or 02RE
- (3) Pin inserts only, not tooled for RP or 02RE (Consult Amphenol for avail.)
- (4) MS connector 21-75 is supplied with size 8 twinax. Commercial connector 21-75 is supplied with size 8 coax.
- (5) MS Connector 21-79 has provision for two size 8 coax contacts. Coax contacts are not supplied unless specified by customer.

MIL-DTL-38999, Series I LJT, II JT, III TV, HD

Insert Availability and Identification Chart

Series	Series	Series	Military	MIL-DTL-27599	Hermetics				Contact Size														
JT II	LJT I	TV III	III	JT/LJT Solder	Crimp	H	Y	TV*	Service Rating	Total Contacts	23 HD	22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)	8 (Quadrx)	
24-24					X	P	P		I	24						12	12						
	25-24★	25-24★	J24		X	P	P		I	25					16	5				4			
		25-26■★			◆				I	25													
24-29					X				I	29						29							
	25-29★	25-29★	J29	X	X				I	29													
24-35					X	P	P		New														
	25-35	25-35	J35		X	P	P	P	M	128		128											
24-37					X				I	37						37							
	25-37★	25-37★	J37		X				I	37													
24-43■					3				I	43						23	20						
	25-43	25-43	J43	X	2	◆			I	43													
	25-46	25-46	J46		2	◆			I	46						40	4			2			
24-61					X		P	P	I	61						61							
	25-61	25-61	J61	X	X	P	P	P	I	61													
		25-62■★			X	◆			I	12						8						4	
		25-90			◆				I	46						40	4				2		
		25-187■							N	187	187												
		25-F4■			X				M/I	66		49				13	4						

- HD designates High Density 38999 Series III insert patterns which use size 23 contacts only. Not rated over 175°C
- X Completely tooled.
- ◆ Not tooled for 02-R.
- P Pin inserts only (contact Amphenol Aerospace for socket availability).
- ★ Ground plane proprietary option available. Arrg. 9-5, 25-62 is exclusively ground plane type.
- Not Mil-Qualified.

TV Series III

Select Shell Size - Special Insert Arrangement

(Not Mil-Spec Qualified)

Shell Size-Insert Arrg.	Crimp	Hermetics*	Service Rating	Total Contacts	Comments	Contact Size			
						22D	20	16	12
9-2	X		I	2	Formerly Pyle		2		
15-4	X		II	4	Formerly Pyle			4	
15-25	X		M	25	Formerly Pyle	22		3	
17-20	X		M	20	Formerly Pyle		16	4	
21-12	X		I	12	Formerly Pyle		3		9
21-21	X		M/Inst.	41	Improved sealing	32			9
21-99	X		M	16	Formerly Pyle	5			11
25-92	X		M	101	Formerly Pyle	92		9	
25-97	X		M	42	Formerly Pyle	26		3	13

Select Non-Standard Shell Size

- Special Insert Arrangement

Shell Size-Insert Arrg.	Crimp	Hermetics*	Service Rating	Total Contacts	Contact Size				
					22D	20	8	4	0
25-16	X		M	8		6		2	
25L-3	X		II	3			1	2	
25L-7	X		II	7			7		
33-3	X		II	3				1	2
33-5	X		II	5				5	
33-6	X		II	6			2	4	
37-5	X		II	4					4

(Insert arrangements requiring non-standard shells or larger contacts)

- X Completely tooled.
- Majority of tooling is completed (contact Amphenol Aerospace for availability).
- ◆ Not tooled for 02-R.
- P Pin inserts only (contact Amphenol Aerospace for socket availability).
- ★ Ground plane proprietary option available. Arrangement 9-5, 25-62 is exclusively ground plane type.
- Not Mil-Qualified.
- * Hermetic inserts - solder termination standard. (Contact Amphenol Aerospace for optional PCB or eyelet termination).
- ** Two size 16 contacts dedicated to fiber optics. See the Fiber Optic section for more information.
- *** For use in MIL-STD-1760 applications (pgs. 43 & 44).
- † For RG 180/U and RG 195/U cables only.
- †† Size 8 Coax and Twinax are interchangeable. Note: 25L-3 and 25L-7 require longer shells.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

Front face of pin inserts illustrated

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

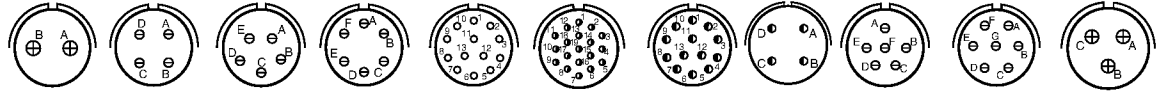
Shell Size & Insert Arrg. for:



Series II JT	8-2		8-3		8-6			8-35		8-44		8-97		8-98	
Series I LJT	9-3		9-6		9-7		9-22		9-35		9-44		9-98		
Series III TV	7-D2	7-D3	7-D4		9-5			9-9 HD		9-35		9-94		9-98	
Service Rating	M	M	M	M	M	Grounded	M	M	N	I	M	M	M	M	I
Number of Contacts	2	3	4	2	3	1	6	7	9	2	6	4	2	2	3
Contact Size	22D	22D	22D	20	20	8 Twinax	22M	22M	23	20	22D	22	20	22M	20

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

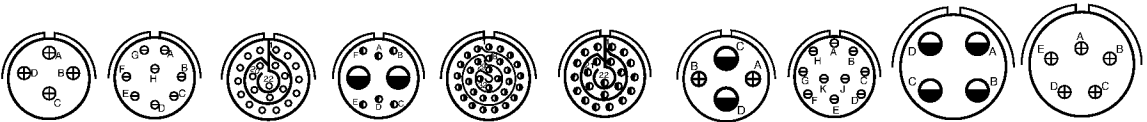
Shell Size & Insert Arrg. for:



Series II JT	10-4		10-5		10-13			10-35		10-98		10-99		12-3		
Series I LJT	11-2		11-4		11-5		11-6		11-13		11-35		11-98		11-99	
Series III TV	11-2		11-4		11-5		11-19 HD			11-35		11-54		11-98		
Service Rating	I	I	I	I	I	M	N	M	II	I	I	I	I	II		
Number of Contacts	2	4	5	6	13	19	13	4	6	7	3	16				
Contact Size	16	20	20	20	22M	23	22D	22D	20	20	16					

- EMI Filter Transient

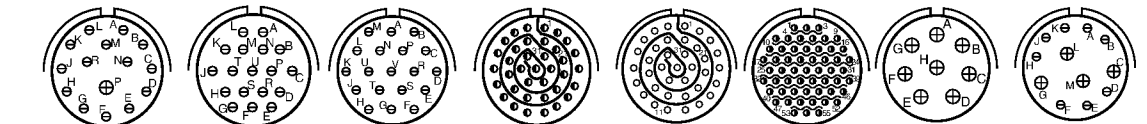
Shell Size & Insert Arrg. for:



Series II JT	12-4		12-8		12-22			12-35		12-98		14-4		14-5		
Series I LJT	13-4		13-8		13-22		13-26		13-32 HD		13-35		13-63		13-98	
Series III TV	13-4		13-8		13-26			13-32 HD		13-35		13-63		13-98		
Service Rating	I	I	M	M	N	M	I	I	I	II						
Number of Contacts	4	8	22	6	2	32	22	2	2	10	4	5				
Contact Size	16	20	22M	22D	12	23	22D	16	12	20	12	16				

- 26482 Matrix 2
- 83723 III Matrix I Pyle

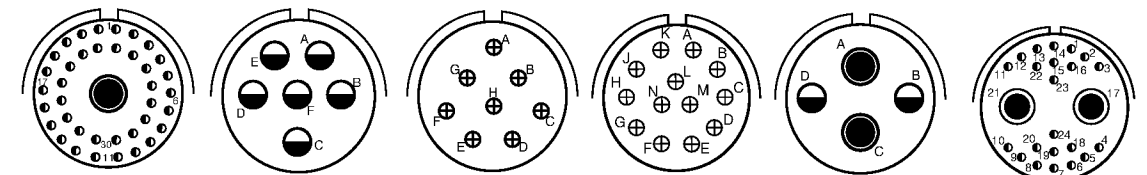
Shell Size & Insert Arrg. for:



Series II JT	14-15		14-18		14-19			14-35		14-37		14-68		14-97	
Series I LJT	15-15		15-18		15-19		15-35		15-37		15-68		15-97		
Series III TV	15-15		15-18		15-19		15-35		15-55 HD			15-97			
Service Rating	I		I		I		M		M		N		I		
Number of Contacts	14	1	18	19	37	37	55	8	8	4					
Contact Size	20	16	20	20	22D	22M	23	16	20	16					

- 5015 Crimp Rear Release Matrix
- 22992 Class I

Shell Size & Insert Arrg. for:



Series II JT	16-6		16-8		16-13			17-22		17-25		
Series I LJT	17-2		17-6		17-8		17-13		17-22			
Series III TV	17-2		17-6		17-8		17-22					
Service Rating	M		I		II		I		Coax		M	
Number of Contacts	38	1	6	8	13	2	2	22	2			
Contact Size	22D	8 Twinax	12	16	16	12 Coax	8 Coax	22D	8 Coax			

- Options Others

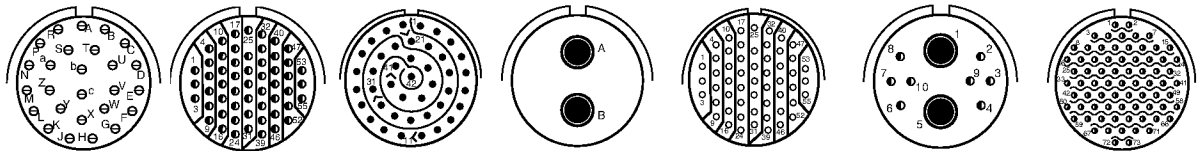


HD: High Density HD38999 (use size 23 contacts only)

CONTACT LEGEND 8 10 12 16 20 22 22M 22D 23

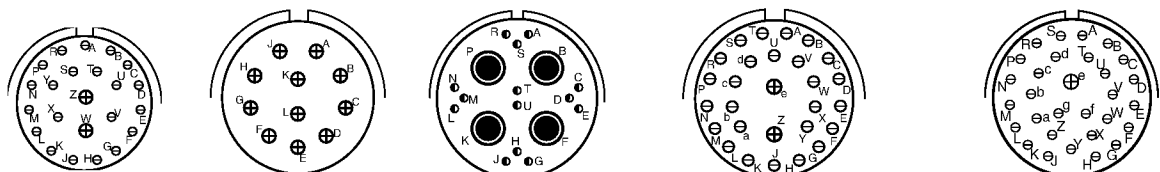
MIL-DTL-38999, Series I LJT, II JT, III TV, HD Insert Arrangements

Front face of pin inserts illustrated



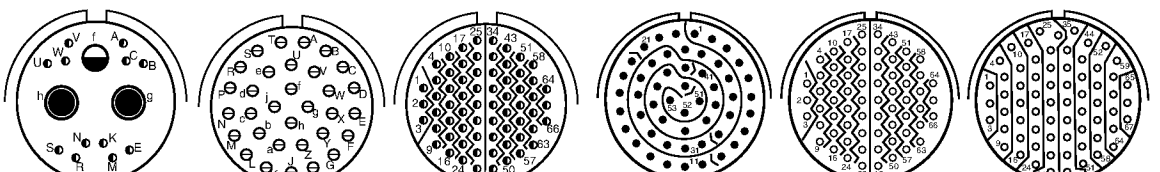
Shell Size & Insert Arrg. for:

Series II JT	16-26	16-35	16-42	16-55		
Series I LJT	17-26	17-35	17-42	17-55		
Series III TV	17-26	17-35		17-52	17-60	17-73 HD
Service Rating	I	M	M	M	M	I/Coax N
Number of Contacts	26	55	42	2	55	8 2 73
Contact Size	20	22D	22	8 Twinax	22M	22D 8 Coax 23



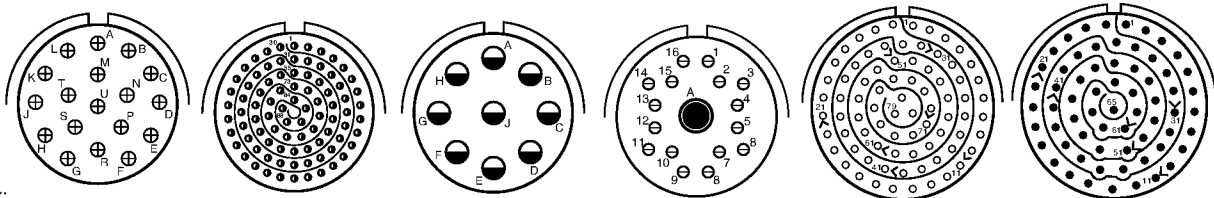
Shell Size & Insert Arrg. for:

Series II JT	16-99	18-11		18-28	18-30
Series I LJT	17-99	19-11	19-18	19-28	19-30
Series III TV	17-99	19-11	19-18	18-28	
Service Rating	I	II	M	M	I
Number of Contacts	21 2	11	14 4	26 2	29 1
Contact Size	20 16	16	22D 8 Twinax	20 18	20 16



Shell Size & Insert Arrg. for:

Series II JT		18-32	18-35	18-53	18-66	
Series I LJT		19-32	19-35	19-53	19-66	19-67
Series III TV	19-31	19-32	19-35			
Service Rating	M	1	M	M	M	M
Number of Contacts	2 1 12	32	66	53	66	67
Contact Size	8 Coax 12 22D	20	22D	22	22M	22M



Shell Size & Insert Arrg. for:

Series II JT	18-68		18-96		20-1	20-2
Series I LJT	19-68				21-1	21-2
Series III TV		19-88 HD		19-AD		
Service Rating	I	N	I	Inst.	M	II
Number of Contacts	18	88	9	16 1	79	65
Contact Size	16	23	12	20 8 Twinax	22M	22



HD: High Density HD38999 (use size 23 contacts only)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix I Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

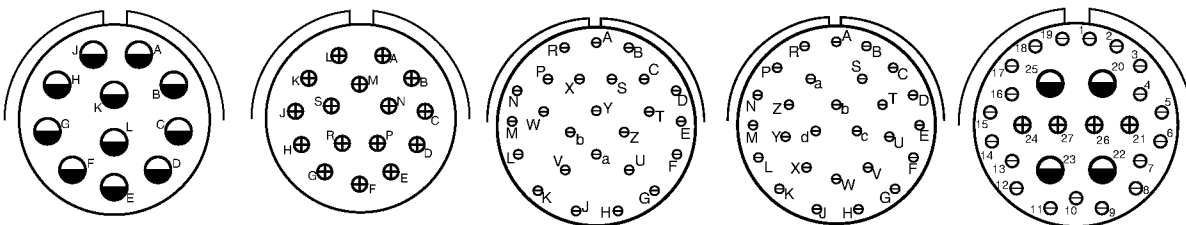
- 22992
- Class 1

- Back-Shells

- Options
- Others

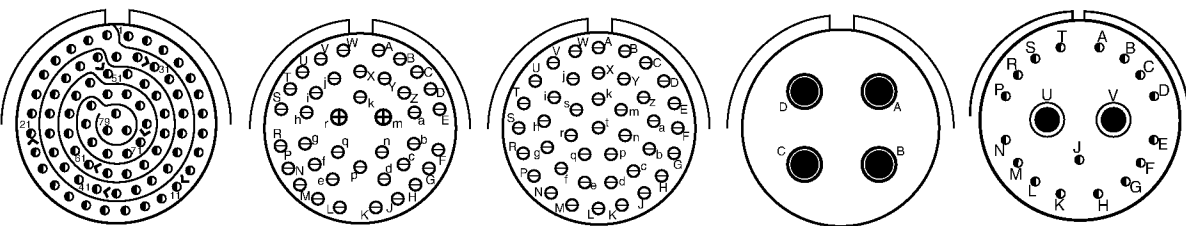
38999

Front face of pin inserts illustrated



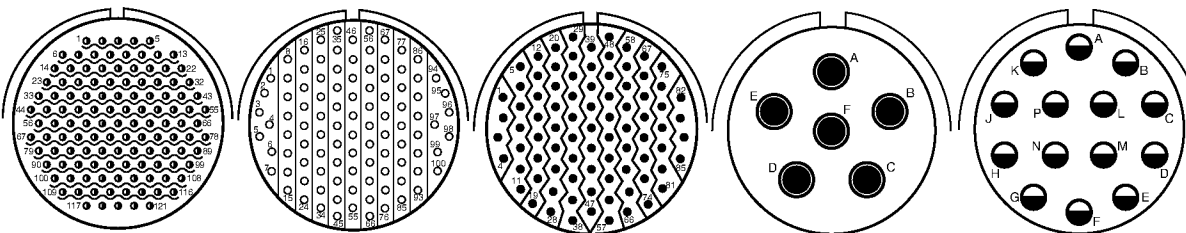
Shell Size & Insert Arrg. for:

Series	20-11	20-16	21-25	21-27	21-29
Series II JT	20-11	20-16			
Series I LJT	21-11	21-16	21-25	21-27	
Series III TV	21-11	21-16			21-29
Service Rating	I	II	I	I	I
Number of Contacts	11	16	25	27	19 4 4
Contact Size	12	16	20	20	20 16 12



Shell Size & Insert Arrg. for:

Series	20-35	20-39	20-41	21-75	21-79
Series II JT	20-35	20-39	20-41		
Series I LJT	21-35	21-39	21-41	21-75	21-79
Series III TV	21-35	21-39	21-41	21-75	21-79
Service Rating	M	1	I	N	II
Number of Contacts	79	37 2	41	4	17 (See Note)
Contact Size	22D	20 16	20	(See Note)	22D



Shell Size & Insert Arrg. for:

Series	22-1	22-2	23-6	23-14
Series II JT	22-1	22-2		22-14
Series I LJT	23-1	23-2	23-6	23-14
Series III TV	21-121 HD		23-6	
Service Rating	N	M	M	I
Number of Contacts	121	100	6	14
Contact Size	23	22M	8 Twinax	12

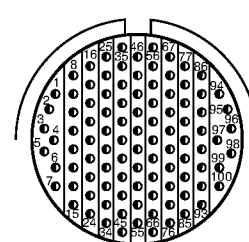
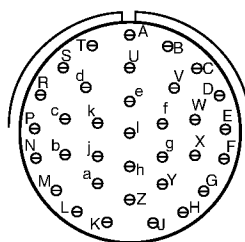
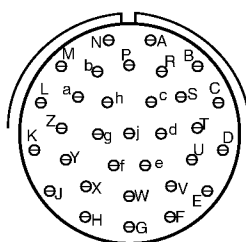
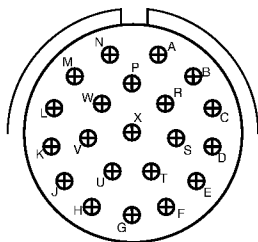
HD: High Density HD38999 (use size 23 contacts only)

Note: MS connector 21-75 is supplied with four size 8 twinax contacts.
Commercial connector 21-75 is supplied with four size 8 coax contacts.
MS connector 21-79 has provision for two size 8 coax contacts.
Coax contacts are not supplied unless specified by customers.



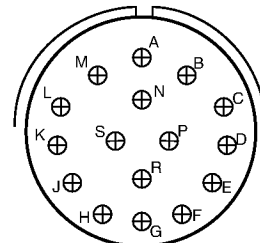
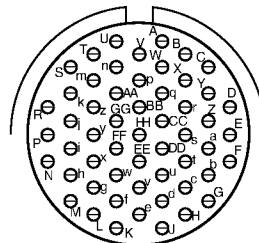
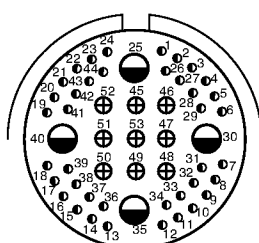
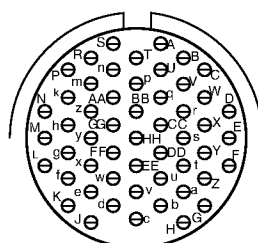
CONTACT LEGEND

Front face of pin inserts illustrated



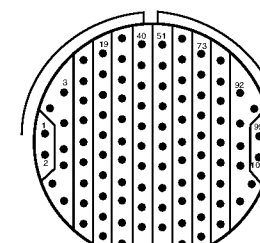
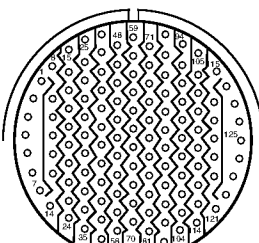
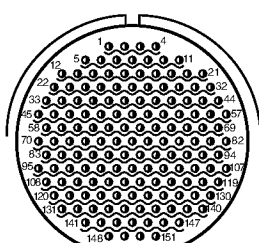
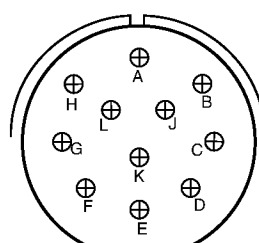
Shell Size & Insert Arrg. for:

Series II JT	22-21	22-32	22-35
Series I LJT	23-21	23-32	23-35
Series III TV	23-21		23-35
Service Rating	II	I	M
Number of Contacts	21	32	100
Contact Size	16	20	22D



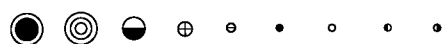
Shell Size & Insert Arrg. for:

Series II JT	22-53	22-55	
Series I LJT	23-53	23-55	23-97
Series III TV	23-53	23-54	23-55
Service Rating	I	M	II
Number of Contacts	53	40 9 4	16
Contact Size	20	22D 16 12	16



Shell Size & Insert Arrg. for:

Series II JT		24-1	24-2
Series I LJT	23-99	25-1	25-2
Series III TV		23-151 HD	
Service Rating	II	N	M
Number of Contacts	11	151	100
Contact Size	16	23	22M 22



CONTACT LEGEND 8 10 12 16 20 22 22M 22D 23

HD: High Density HD38999 (use size 23 contacts only)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

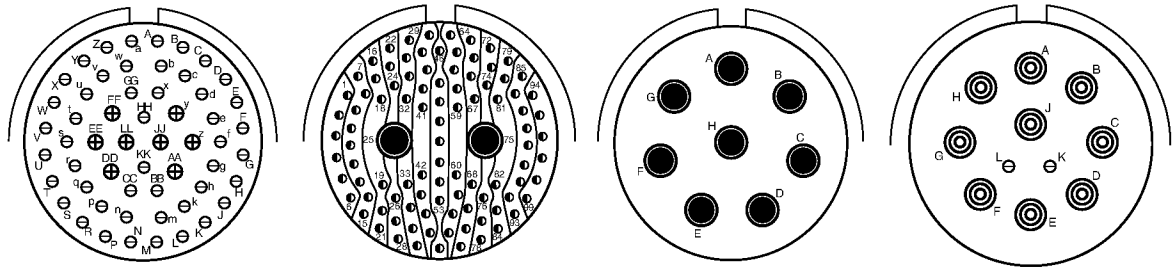
Back-Shells

Options Others

38999

Front face of pin inserts illustrated

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



Shell Size & Insert Arrg. for:

Series	Shell Size	Insert Arrg.		
Series II JT	24-4			
Series I LJT	25-4			
Series III TV	25-4			
		25-7		
		25-8		
		25-11		
		25-11***		
Service Rating	I	M	Twinax	N
Number of Contacts	48 8	97 2	8	2 9
Contact Size	20 16	22D 8 Twinax	8 Twinax	20 10

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix I Pyle

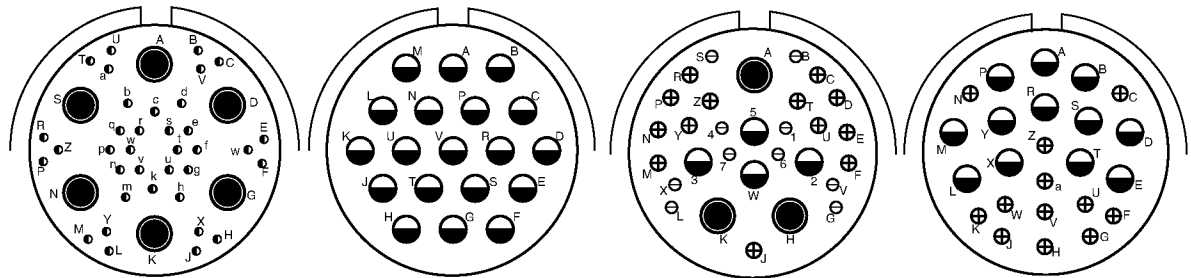
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

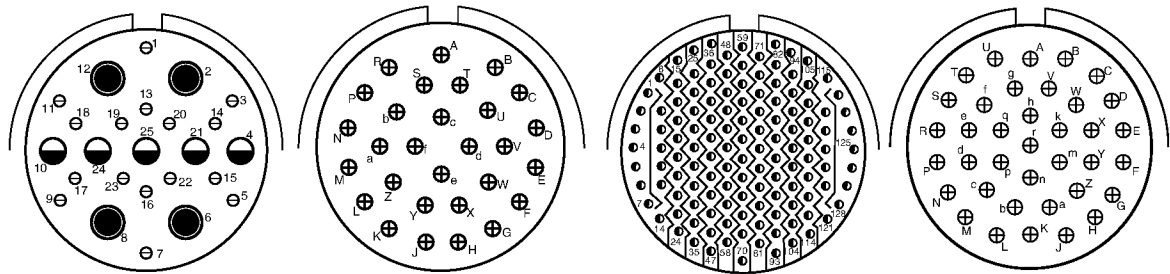
- Options Others



Shell Size & Insert Arrg. for:

Series	Shell Size	Insert Arrg.		
Series II JT	24-19			
Series I LJT	25-19			
Series III TV	25-17			
		25-19		
		25-20		
		25-20***		
		25-24		
		25-24		
Service Rating	M	I	N	I
Number of Contacts	36 6	19	10 13 3 4	12 12
Contact Size	22D 8 Twinax	12	20 16 8 Twinax 12 Coax	16 12

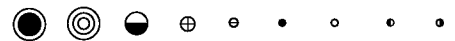
(With Matched Impedance)



Shell Size & Insert Arrg. for:

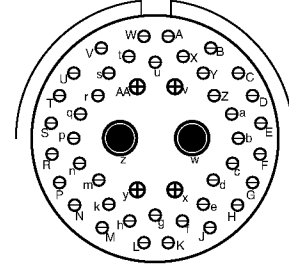
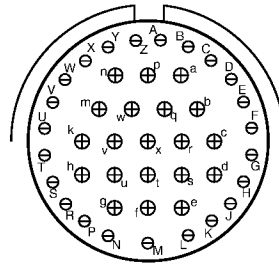
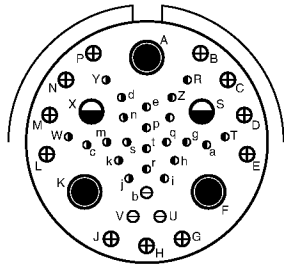
Series	Shell Size	Insert Arrg.		
Series II JT	24-29			
Series I LJT	25-29			
Series III TV	25-26			
		25-29		
		24-35		
		25-35		
		25-35		
		25-37		
		25-37		
Service Rating	I	I	M	I
Number of Contacts	16 5 4	29	128	37
Contact Size	20 12 8 Coax	16	22D	16

*** For use in MIL-STD-1760 applications (see pages 43 and 44).



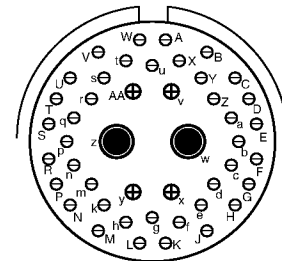
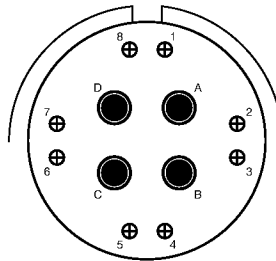
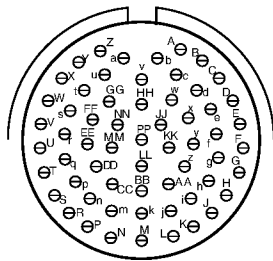
CONTACT LEGEND 8 10 12 16 20 22 22M 22D 23

Front face of pin inserts illustrated



Shell Size & Insert Arrg. for:

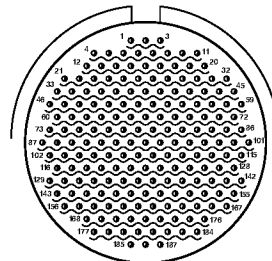
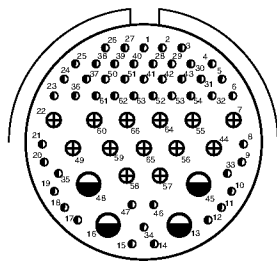
Series II JT						25-43				
Series I LJT						25-43		25-46		
Series III TV	25-41					25-43		25-46		
Service Rating	N/Inst.					I		I		
Number of Contacts	22	3	11	2	3	23	20	40	4	2
Contact Size	22D	20	16	12 Coax	8 Twinax	20	16	20	16	8 Coax †



Shell Size & Insert Arrg. for:

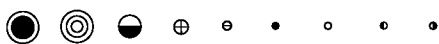
Series II JT	24-61					25-62		25-90		
Series I LJT	25-61					25-62		25-90		
Series III TV	25-61					25-62		25-90		
Service Rating	I					I		I		
Number of Contacts	61					8	4	40	4	2
Contact Size	20					16	8	20	16	8 Twinax

Ground Plane Only



Shell Size & Insert Arrg. for:

Series II JT						25-F4					25-187 HD														
Series I LJT						25-F4					25-187 HD														
Series III TV						25-F4					25-187 HD														
Service Rating						Size 22D=M, Balance =I					N														
Number of Contacts						49					13					4					187				
Contact Size						22D					16					12					23				



CONTACT LEGEND 8 10 12 16 20 22 22M 22D 23

† Coax contacts for RG180/U or RG195/U cable.

HD: High Density HD38999 (use size 23 contacts only)

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

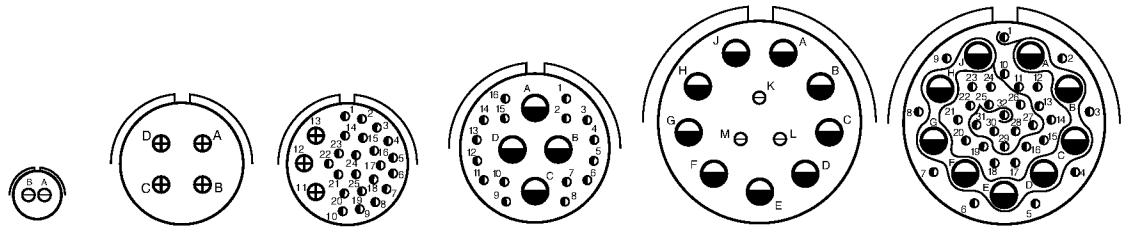
- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

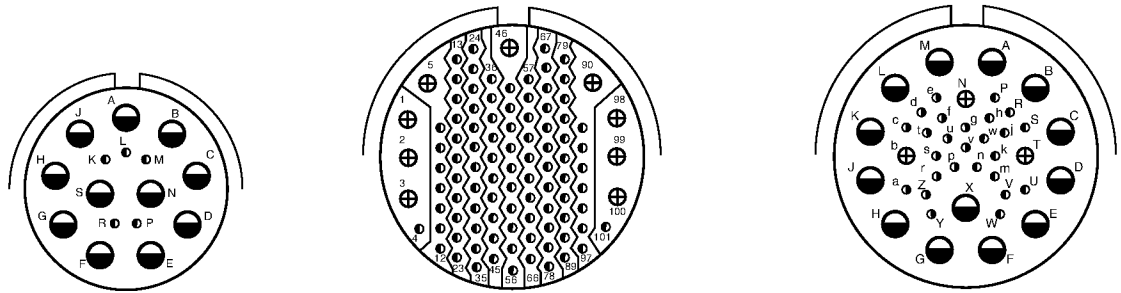
- Options Others

Front face of pin inserts illustrated



Shell Size & Insert Arrg. for:

Series III TV	9-2	15-4*	15-25	17-20	21-12	21-21
Service Rating	I	II	M	M	I	M/Inst.
Number of Contacts	2	4	22 3	16 4	3 9	32 9
Contact Size	20	16	22D 16	22D 12	20 12	22D 12



Shell Size & Insert Arrg. for:

Series III TV	21-99	25-92	25-97
Service Rating	M	M	M
Number of Contacts	5 11	92 9	26 3 13
Contact Size	22D 12	22D 16	22D 16 12

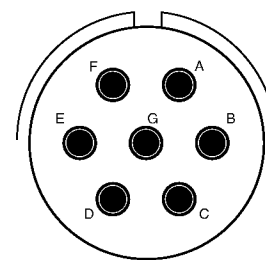
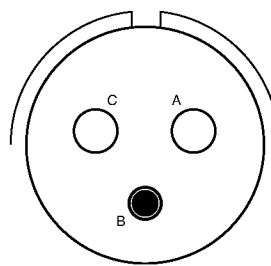
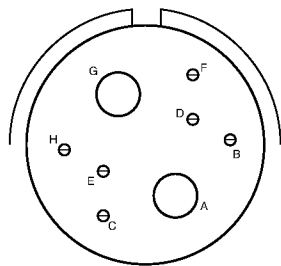
NOTE: Some specials shown here were formerly known as Pyle arrangements. Consult Amphenol for how to order information for connectors with these inserts. For further information on special arrangements consult Amphenol Aerospace, Sidney NY.

* Pyle 15-4 does not mate with Amphenol Tri-Start 15-4 insert.



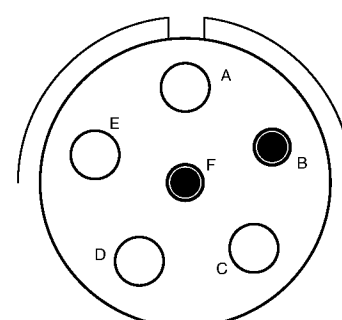
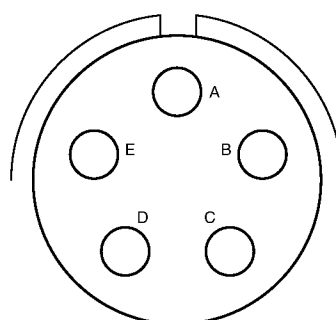
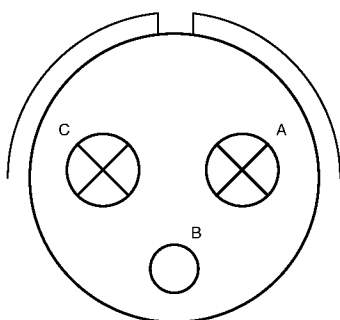
CONTACT LEGEND 8 10 12 16 20 22 22M 22D 23*

Front face of pin inserts illustrated



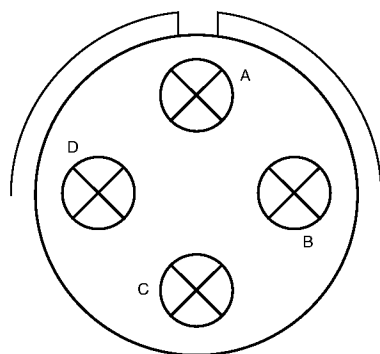
Shell Size & Insert Arrg. for:

Series III TV	25-16		25L-3		25L-7	
Service Rating	M		II		II	
Number of Contacts	6	2	1	2	7	
Contact Size	20	4	8	4	8	



Shell Size & Insert Arrg. for:

Series III TV	33-3		33-5		33-6	
Service Rating	II		II		II	
Number of Contacts	1	2	5		2	4
Contact Size	4	0	4		8	4

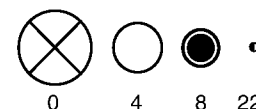


Shell Size & Insert Arrg. for:

Series III TV	37-5
Service Rating	II
Number of Contacts	4
Contact Size	0

NOTE: Some specials shown here were formerly known as Pyle arrangements. Consult Amphenol for how to order information for connectors with these inserts.

Consult Amphenol Aerospace for longer shell drawings.



CONTACT LEGEND

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

CONTACT RATING FOR TV III, HD, JT II, LJT I, SJT

Contact Size	Test Current (Amps)		Maximum Millivolt Drop Crimp*	Maximum Millivolt Drop		Contact Size	Crimp Well Data		Solder Well Data	
	Crimp	Hermetic		Solder*	Hermetic*		Well Diameter	Normal Well Depth	Well Diameter	Nominal Well Depth
23	5	3	73	20	85	23	.0345 ± .0010	.141	.0345 ± .0010	.130
22M	3	2	45	20	60	22M	.028 ± .001	.141	.029 +.004 -.000	
22D	5	3	73		85	22D	.0345 ± .0010	.141	.036 +.004 -.000	.094
22	5	3	73	20	85	22	.0365 ± .0010	.141	.036 +.004 -.000	.094
20	7.5	5	55	20	60	20	.047 ± .001	.209	.044 +.004 -.004	.125
16	13	10	49	20	85	16	.067 ± .001	.209	.078 +.000 -.004	.141
12	23	17	42	20	85	12	.100 ± .002	.209	.116 +.004 -.002	.141
10 (Power)	33	NA	33	NA	NA	10 (Power)	.137 ± .002	.355	NA	NA
8 (Power)	46	NA	26	NA	NA	8	.181 ± .002	.490	NA	NA
4	80	NA	23	NA	NA	4	.281 ± .002	.490	NA	NA
0	150	NA	21	NA	NA	0	.453 ± .002	.585	NA	NA

*When tested using silver plated wire.

SERVICE RATING**

Service Rating	Suggested Oper. Voltage (Sea Level)		Test Voltage (Sea Level)	Test Voltage 50,000 Ft.	Test Voltage 70,000 Ft.	Test Voltage 110,000 Ft.
	AC (RMS)	DC				
M	400	500	1300 VRMS	550 VRMS	350 VRMS	200 VRMS
N	300	450	1000 VRMS	400 VRMS	260 VRMS	200 VRMS
I	600	850	1800 VRMS	600 VRMS	400 VRMS	200 VRMS
II	900	1250	2300 VRMS	800 VRMS	500 VRMS	200 VRMS

**Please note that the establishment of electrical safety factors is left entirely in the designer's hands, since he is in the best position to know what peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

MIL-DTL-38999 Series III STANDARD 500 CYCLE CONTACTS FOR TV AND CTV, P & S

Contact Size	TV/CTV Pins		TV/CTV Sockets	
	Military No.	Supersedes	Military No.	Supersedes
8 (Coax)*	M39029/60-367	MS27536	M39029/59-366	MS27535
8 (Power)	Contact Factory	"	"	"
8 (Twinax)	M39029/90-529**	N/A	M39029/91-530	N/A
10 (Power)	M39029/58-528	N/A	M39029/56-527	N/A
12	M39029/58-365	MS27493-12	M39029/56-353	MS27490-12
16	M39029/58-364	MS27493-16	M39029/56-352	MS27490-16
20	M39029/58-363	MS27493-20	M39029/56-351	MS27490-20
22D	M39029/58-360	MS27493-22D	M39029/56-348	MS27490-22D
4	N/A	N/A	N/A	N/A
0	N/A	N/A	N/A	N/A

Above part numbers include standard 500 cycle finish designation - gold plating over suitable underplate in accordance with SAE AS39029. For other finish variations, consult Amphenol Aerospace.

*For use with RG180B/U and RG195A/U cable. For other size 8 coax or optional sizes 12 and 16 coax contacts available for use in Tri-Start connectors, see High Speed Contact section in this catalog or consult Amphenol Aerospace.

MIL-DTL-38999 Series III SEALING PLUGS

Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	N/A
8 (Twinax)	T3-4008-59P	N/A
8 (Power)	10-405996-83	MS27488-8-3
10 (Power)	T3-4010-59P	M85049/81-10
12	10-405996-122	MS27488-12-2
16	10-405996-162	MS27488-16-2
20	10-405996-202	MS27488-20-2
22D	10-405996-222	MS27488-22-2
4	10-405996-43	MS27488-4-3
0	10-405996-03	MS27488-0-3

** For use with M17/M176-00002 cable.

† Optional design - see slash sheet MS39029.

For other contact options available for use in Tri-Start connectors (wire wrap, thermocouple, fiber optic), consult Amphenol.

MIL-DTL-38999 Series III 1500 CYCLE CONTACTS FOR CTV, CLASSES H & J

Contact Size	CTV Pins			CTV Sockets		
	Commercial No.	Military No.	Supersedes	Commercial No.	Military No.	Supersedes
12	10-597072-2X	M39029/107-623	-	10-597073-2X	M39029/106-617	-
16	10-597068-2X	M39029/107-622	-	10-597069-2X	M39029/106-616	-
20	10-597064-2X	M39029/107-621	-	10-597065-2X	M39029/106-615	-
22D	10-597058-3X	M39029/107-620	-	10-597061-2X	M39029/106-614	-

MIL-DTL-38999 Series II JT/ Series I LJT/SJT Series CRIMP CONTACTS

Contact Size	JT/LJT/SJT Pins MS No.	JT Socket MS No.	LJT/SJT Sockets MS No.	Contact Size	JT/LJT Pins MS No.	JT Socket MS No.	LJT/SJT Sockets MS No.
8 (Coax)*	M39029/60-367	NA	M39029/59-366	20	M39029/58-363	M39029/57-357	M39029/56-351
8 (Twinax)	M39029/90-529**	NA	M39029/91-530	22M	M39029/58-362	M39029/57-356	M39029/56-350
10 (Power)	M39029/58-528	NA	M39029/56-527	22D	M39029/58-361	M39029/57-355	M39029/56-349
12	M39029/58-365	M39029/57-359	M39029/56-353		M39029/58-360	M39029/57-354	M39029/56-348
16	M39029/58-364	M39029/57-358	M39029/56-352				

THERMOCOUPLE CONTACTS Series II JT/ I LJT

Contact Size	Material	JT/LJT Pins	JT Sockets	LJT Sockets
20	Chromel	10-407862-310	10-407863-310	10-407236-310
	Alumel	10-407862-320	10-407863-320	10-407865-320
	Iron	10-407862-335	10-407863-335	10-407865-335
	Constantan	10-407862-342	10-407863-342	10-407865-342

Partial Listing. If you do not see the contact for your application, consult Amphenol Aerospace.

THERMOCOUPLE CONTACTS PYLE VERSION Series II JT/ I LJT

Contact Size	Pins (II JT/ I LJT)		Sockets (LJT)		Material
	Spec Number	Pyle Number	Spec Number	Pyle Number	
22D	M39029/87-472	T3-4022-10P	M39029/88-484	T3-4122-10P	CHROMEL
22D	M39029/87-471	T3-4022-10R	M39029/88-483	T3-4122-10R	ALUMEL
20	M39029/87-476	T3-4020-10P	M39029/88-488	TS-4120-10P	CHROMEL
20	M39029/87-475	T3-4020-10R	M39029/88-487	T3-4120-10R	ALUMEL
16	M39029/87-480	T3-4016-10P	M39029/88-492	T3-4116-10P	CHROMEL
16	M39029/87-479	T3-4016-10R	M39029/88-491	T3-4116-10R	ALUMEL

Above part numbers include standard finish designation - gold plating over suitable underplate in accordance with MIL-DTL-39029. For other finishes, consult Amphenol Aerospace. Note: 22M and 22D contacts are interchangeable. *For use with RG180B/U and RG195A/U cable. For other size 8 coax or optional sizes 12 and 18 coax contacts available for use in JT/LJT connectors, see High Speed Contacts section of this catalog.** For use with 17/M176-00002 cable.

SEALING PLUGS Series II JT/ I LJT

Contact Size	Commercial No.	Military No.
8 (Coax)	10-482099-8	MS27488-8
8 (Twinax)	T3-4008-59P	N/A
10 (Power)	10-576225	N/A
12	10-405996-122	MS27488-12-2
16	10-405996-162	MS27488-16-2
20	10-405996-202	MS27488-20-2
22	10-405996-222	MS27488-22-2
22M	10-405996-222	MS27488-22-2
22D	10-405996-222	MS27488-22-2

SEALING PLUGS SJT

Contact Size	Commercial No.
8 (Coax)	10-482099-8
8 (Twinax)	10-482099-8
10 (Power)	NA
12	10-405996-012 Yellow
16	10-405996-016 Blue
20	10-405996-020 Red
22	10-405996-022 Black
22M	10-405996-022 Black
22D	10-405996-022 Black

FINISH DATA MIL-DTL-38999, Tri-Start Series III TV

Aluminum Shell Components Non-Hermetic		
Finish	Service Class	
	Military	Commercial
Anodic Coating (Non-Conductive)	C	RX**
Electroless Nickel	F (Metal)	RF
	M (Composite)	
Olive Drab Cadmium Plate Nickel Base	W (Metal)	RW
	J (Composite)	
Stainless Steel with Nickel Plate (non-firewall)	L	
Stainless Steel with Nickel Plate (firewall)	S	RS
Stainless Steel	K	RK
Durmalon plated	T	DT
Zinc-Nickel Plated	Z	DZ

Hermetic Shell Components		
Material/Finish	Service Class	
	Military	Commercial
Stainless Steel	Y	Y
Stainless Steel with Nickel Plate	N	YN

**Add Suffix (005) to part number.

FINISH DATA MIL-DTL-38999, Series I LJT, II JT

Aluminum Shell Components Non-Hermetic					
Finish	Suffix		Finish Plus "SR" Suffix	Indicated Finish Standard for JT Types Listed Below	Indicated Finish Standard for LJT Types Listed Below
	Military	Commercial			
Cadmium Plated Nickel Base	MS (A)	-	(SR)	JT/JTG/JTL/JTP	LJT/LJTP
Anodic Coating (Alumilite)	MS (C)	(005)	(300)	JTS/JTPS/JTLS	LJTSP/LJTSP
Chromate Treated (Iridite 14-2)		(011)	(344)	JTN/JTPN/JTLN	LJTNP/LJTNP
Olive Drab Cadmium Plate Nickel Base	MS (B)	(014)	(386)		
Electroless Nickel	MS (F)	(023)	(424)		
Nickel-PTFE Durmalon		(038)			

Hermetic Connectors				
Finish	Suffix		Indicated Finish Standard for JT Types Listed Below	Indicated Finish Standard for LJT Types Listed Below
	Military	Commercial		
Carbon Steel Shell			JT()H / JT()Y	LJT()Y
Tin Plated Shell and Contacts			JTL()H / JTL()Y	LJT()H
Carbon Steel Shell Tin Plated Shell and Gold Plated Contacts	MS (D)			
Stainless Steel Shell Gold Plated Contacts	MS (E)	(162)	JTS()Y	LJTS()Y

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix I Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1
- Back-Shells
- Options Others

Amphenol MIL-DTL-38999, Series III, TV



**New
Featured**



Other New 38999

UXTM (see page 46
SEFACE



TABLE OF CONTENTS

Combined MIL-DTL-38999 Series I, II, III

s ~~XXXXX~~

s ~~XXXXX~~

s ~~XXXXX~~

10-17

MIL-DTL-38999, Series III TV

s Performance, Options

s ~~XXXXX~~

s Test Data

s ~~XXXXX~~

s ~~XXXXX~~

Shell Styles:

s ~~XXXXX~~60 2 460 2

s ~~XXXXX~~60 2 460 2

s ~~XXXXX~~6 2 46 2

s RIMP,54(+ 3TR) ~~XXXXX~~6 -46

s ~~XXXXX~~6 2 46 2

s ~~XXXXX~~6 2 46 2

s ~~XXXXX~~46 2

s ~~XXXXX~~603 9

s ~~XXXXX~~63 9

s ~~XXXXX~~63)9

s ~~XXXXX~~63()9

s ~~XXXXX~~

s ~~XXXXX~~

s ~~XXXXX~~ -, 34 ,ANY RELEASE

s ~~XXXXX~~ -, 34 ()

s ~~XXXXX~~

s ~~XXXXX~~()ALANCH)34

44

MIL-DTL-38999 Series III Typical Markets:

s ~~XXXXX~~

s ~~XXXXX~~

s ~~XXXXX~~

s)32

s Space Applications

Amphenol
Aerospace



Tri-Start™ MIL-DTL-38999 Series III with Metal Shells - Aluminum, Stainless Steel, Class K Firewall
Amphenol® Tri-Start MIL-DTL-38999* Series III Connectors offer the highest performance capabilities for both general duty and severe environment applications. Meeting or exceeding MIL-DTL-38999 Series III requirements, the Tri-Start connector with standard metal shells (aluminum or stainless steel with several finish options) offers these features:

- **EMI Shielding** - solid metal-to-metal coupling, grounding fingers, electroless nickel plating, and thicker wall sections provide superior EMI shielding capability of 65dB minimum at 10 GHz
- **Contact Protection** - recessed pins in this 100% scoop-proof connector minimize potential contact damage
- **Moisture Resistance** - improved interfacial seal design helps prevent electrolytic erosion of contacts
- **Corrosion Resistance** - shells of stainless steel or cadmium over nickel plating withstand a 500 hour salt spray exposure
- **Vibration/Shock** - operates under severe high temperature vibration, through 200°C
- **Firewall Capability** - available in a stainless steel shell, class RK, RS
- **Lockwiring Eliminated** - unique, self-locking, quick coupling connector eliminates lockwiring
- **Quick Coupling** - completely mates and self-locks in a 360° turn of the coupling nut
- **Inventory Support Commonality** - uses standard MIL-DTL-38999 contacts, application tools, insert arrangements
- **Electrostatic Discharge Protection (ESD)** - protection for sensitive circuitry without diodes, varistors, etc., with the use of the Faraday Cage principle which shunts high voltage, high current discharge events (see page 331)
- **Hermetic** - air leakage limited to $1 \times 10^{-7} \text{ cm}^3$ per second optional
- **Qualified Specifications** - Stainless Steel qualified to BACC63DB and BACC63DC specifications

Optional Shell Geometries

Amphenol offers a number of different shell configurations to fit your needs.

- Deep Reach Shells - For increased panel thickness
- Stand-off Flange Shells - For attachments to Printed Circuit Boards.
- Connector with Integral Strain Reliefs

* MIL-DTL-38999 Series III supersedes MIL-C-38999 Series III.

Applicable Patents:

Tri-Start™ Connector Patent 4,109,990.
 Composite Connector Patents:
 4,268,103; 4,648,670; 4,682,832; 4,703,987.
 Clutch-Lok® Patent 6,152,753.



Series III Composite Tri-Start, Qualified to MIL-DTL-38999, Rev. J

MIL-Qualified to MIL-DTL-38999, Rev. K, the Amphenol® Composite Tri-Start Connector offers a lightweight, corrosion resistant connector with the same high performance features as its metal counterpart. The Composite Tri-Start Connector also includes the following features:

- **Lightweight** - 17% – 70% weight savings (17–40% weight savings vs. Aluminum) (60–70% weight savings vs. Stainless steel) See Composite weight comparison chart on page 23.
- **Corrosion Resistance** - available in standard MIL-DTL-38999 olive drab cadmium (-65°C to 175°C) and electroless nickel plating (-65°C to 200°C), both withstanding 2000 hours of salt spray exposure. The base material is able to withstand an indefinite exposure to salt spray.
- **Durability** - 1500 couplings minimum (in reference to connector couplings, not contacts)
- **Extended Life Contact** - Mil-approved plating process which provides 1500 couplings minimum
- Qualified to BACC63CT and BACC63CU specifications

CLUTCH-LOK™ MIL-DTL-38999 Series III High Vibration Connector

The Tri-Start option CLUTCH-LOK offers all advantages of stainless steel/Class K firewall for MIL-DTL-38999 Series III connectors, plus a unique clutch design that actually tightens itself under vibration. Features include:

- High degree of differential torque
- No settling back to the next ratchet tooth
- Completely intermateable with all existing MIL-DTL-38999 Series III connectors
- Offers advantage in inaccessible, hard to reach areas where mating torque is difficult to apply and complete coupling is not verifiable by inspection

See page 32 for description,
 25 – 27 for ordering.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle

5015 Crimp Rear Release Matrix
22992 Class 1

Back-Shells
Options Others

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

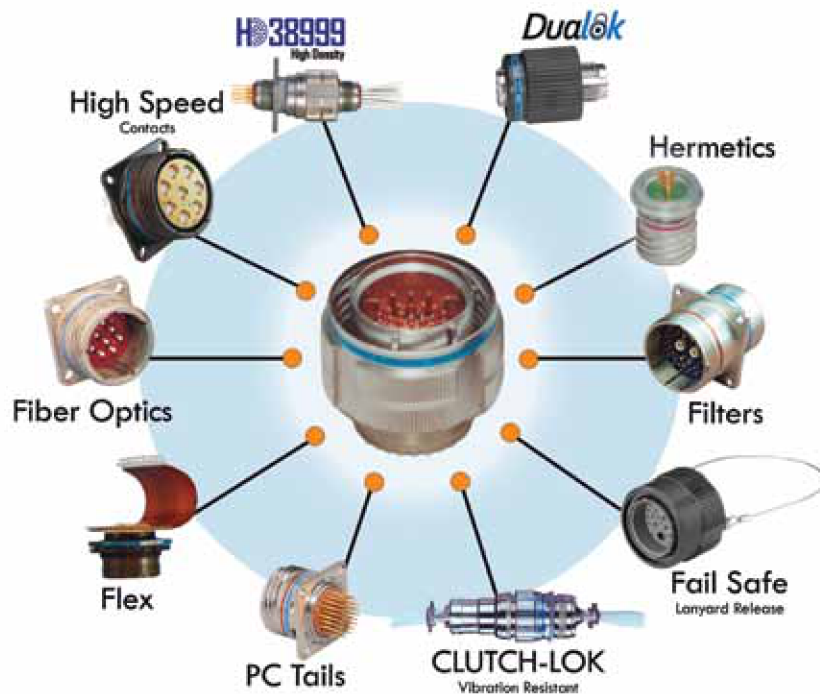
5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Series III, TV Tri-Start Connectors, offer more versatility & options than any other interconnection family!



High reliability and increased versatility best describe Amphenol MIL-DTL-38999, Series III circular connectors. Originally designed for the harshest of environments and most demanding of applications, Amphenol MIL-DTL-38999 Series III, Tri-Start connectors continue to evolve in pace with the needs of an ever-changing market.

Amphenol Tri-Start connectors can be configured with a number of application specific technologies like High Density HD38999, Dualok, Filters, Hermetics, PC Tails, Fiber Optics, Flex, CLUTCH-LOK, Fail Safe, and contacts. Flexibility aids in design optimization through the combination of different technologies within a common, time-tested, harsh environment connector body.

For more information about options, please call 800-678-0141 or visit www.amphenol-aerospace.com.

Performance

Designed for Performance

Numerous advantages in performance capability are designed into the Amphenol Tri-Start Connector. A positive metal to metal coupling design, grounding fingers, and electroless nickel plating provide superior EMI shielding capability of 65 dB minimum at 10 GHz.

Acme threads provide coupling durability. Thicker wall sections and a greater coupling surface area improve strength and shock resistance. Blunting of the thread on both the coupling nut and receptacle eliminates cross coupling. The connector quickly mates and self locks in a 360° turn of the coupling nut.

Elongated mounting holes permit the Tri-Start Connector to intermount with various existing MIL-Spec box or wall mount receptacles, giving it a design replacement advantage.

Shells of stainless steel or cadmium over nickel plating prevent severe corrosion. Resistance is tested through exposure to a 500 hour salt spray. Composite versions provide protection from salt spray exposure for 2000 hours. Other finish options are available; see how to order Tri-Start metal and Tri-Start Composite.

Recessed pins minimize potential contact damage in this 100% scoop-proof connector. In a blind mating application, mating shells cannot "scoop" the pins and cause a shorting or bending of contacts.

The design of the Amphenol Tri-Start interfacial seal meets the MIL-DTL-38999 Series III requirements for electrolytic erosion resistance.

A rigid dielectric insert with excellent electrical characteristics provides durable protection to the contacts. The socket contacts are probe proof, and all contacts are rear removable. They are plated in the standard 50 micro inches minimum gold, with 100 micro inches as an option, and are available in standard Tri-Start insert arrangements and special Pyle® insert arrangements in sizes 10 power, 12, 16, 20 and 22D contacts. Special insert patterns are also available with larger contacts in sizes 4 and 0.

MIL-DTL-38999, Series III TV

Weight Comparisons (Composite vs. Metal)

Depending on the shell style, shell size and contact count, weight savings can range from 17% to 40% compared to standard aluminum product.

Tri-Start Weight in Ounces (includes contacts)

Weight

	Wall Mount Receptacle (00 • Military D38999/20)						Jam Nut Receptacle (07) • Military D38999/24						Plug (06) • Military D38999/26					
	Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite		Stainless Steel		Aluminum		Composite	
	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket	Pin	Socket
9-35	.7216	.7840	.3248	.3777	.2588	.3121	1.1472	1.2096	.4416	.5040	.3489	.4413	1.0736	1.1360	.4236	.4625	.2606	.2994
9-98	.7216	.7776	.2496	.3056	.1664	.2224	1.1472	1.2032	.4416	.4976	.3744	.4640	1.0736	1.1296	.3968	.4624	.2991	.2337
11-35	.9488	1.0800	.3632	.4960	.2753	.4081	1.4304	1.5632	.5936	.7264	.4679	.6007	1.2480	1.3808	.5312	.6389	.3450	.4582
11-98	.9488	1.0620	.3632	.4768	.2753	.3889	1.4304	1.5440	.5936	.7072	.4679	.5815	1.2480	1.3616	.5330	.6283	.3468	.4457
13-8	1.2096	1.3888	.4800	.6592	.3696	.5488	1.9104	2.0896	.7664	.9456	.6560	.8352	1.8048	1.9840	.7936	.9728	.5237	.5952
13-35	1.2160	1.4320	.4864	.7024	.3762	.5922	1.9168	2.1328	.7728	.9888	.6136	.8296	1.8112	2.0272	.8000	.8472	.5301	.6531
13-98	1.2160	1.4016	.4864	.6720	.3762	.5618	1.9168	2.1024	.7728	.9584	.6136	.7992	1.8112	1.9968	.7978	.9856	.5244	.7157
15-5	1.5312	1.7904	.6352	.8944	.5027	.7619	2.3792	2.6384	.9728	1.2320	.7749	1.0341	2.2704	2.5456	.9632	1.1719	.6450	.8467
15-18	1.5456	1.8416	.7760	.9456	.6432	.8128	2.3936	2.6896	.9872	1.2832	.8544	1.1504	2.2848	2.5808	.9776	1.2736	.6594	.8208
15-35	1.5424	1.8768	.6464	.9808	.5139	.8483	2.3904	2.7344	.9840	1.3280	.7861	1.1301	2.2816	2.6256	1.2179	1.3184	.8961	1.0002
17-6	2.1488	2.5904	.9360	1.3776	.7812	1.2228	2.9152	3.3568	1.2336	1.6752	.9940	1.4356	2.5008	3.1024	1.1408	1.7424	.8160	1.4176
17-26	2.1344	2.5600	.9216	1.3472	.7668	1.1924	2.9008	3.3264	1.2192	1.6448	.9796	1.4052	2.4864	2.9120	1.1264	1.3343	.8017	.8062
17-35	2.1360	2.6640	.9232	1.4512	.7684	1.2964	2.9024	3.4304	1.2208	1.7488	.9812	1.5092	2.4880	3.0160	1.1280	1.5497	.8033	1.2144
19-11	2.2592	2.6656	.9696	1.4528	.7925	1.2757	3.4352	3.9184	1.4720	1.9552	1.2033	1.6865	2.9808	3.4640	1.3472	1.8304	.9632	1.4464
19-32	2.1888	2.7264	.9760	1.5136	.7989	1.3365	3.4416	3.9792	1.4784	2.0160	1.2097	1.7473	2.9872	3.5248	1.3536	1.8912	.9696	1.5072
19-35	2.1920	2.8432	.9792	1.6304	.8021	1.4533	3.4448	4.0960	1.4816	2.1328	1.2129	1.8641	2.9904	3.6416	1.3568	2.0080	.9728	1.6240
21-11	2.7456	3.4640	1.3088	2.0272	1.1088	1.8272	3.9712	4.6896	1.8128	2.5312	1.6128	2.3312	3.4448	4.1632	1.7344	2.5312	1.3039	1.8710
21-16	2.6784	3.3168	1.2416	1.8800	1.0422	1.6806	3.9040	4.5424	1.7456	2.3840	1.4505	2.0889	3.3776	4.0160	1.6672	2.3168	1.2352	1.8736
21-35	2.6672	3.4992	1.2304	2.0624	1.0310	1.8630	3.8928	4.7248	1.7344	2.5664	1.4393	2.2713	3.3664	4.1984	1.6560	2.2309	1.2255	1.8003
21-41	2.6768	3.3600	1.2400	1.9232	1.0406	1.7238	3.9024	4.5856	1.7440	2.4272	1.4489	2.1321	3.3760	3.5792	1.6656	1.8688	1.2336	1.4368
23-21	3.0352	3.8624	1.4496	2.2768	1.2279	2.0551	4.2368	5.0640	1.9440	2.7712	1.6368	2.4640	3.7920	4.6192	1.9216	2.7488	1.4637	2.2896
23-35	3.0240	4.0448	1.4384	2.4592	1.2167	2.2375	4.2256	5.2464	1.9328	2.9536	1.6256	2.6464	3.7808	4.8016	1.9104	2.6087	1.4525	2.1507
23-53	2.8992	3.9072	1.4560	2.4816	1.2343	2.2599	4.2432	5.1088	1.9504	2.8160	1.6432	2.5088	3.7984	4.6640	1.9280	2.7936	1.4672	2.2384
25-4	3.4512	4.4800	1.7312	2.8816	1.4864	2.1904	4.8048	5.8272	2.2016	3.2480	1.9568	2.8720	4.2224	5.2496	2.2128	3.2560	1.7133	2.4163
25-19	3.5312	4.7264	1.8112	3.0064	1.5664	2.7616	4.8848	6.0816	2.2816	3.4784	2.0368	3.2336	4.3024	5.4992	2.2928	3.4896	1.7933	2.7058
25-20	3.8190	4.7150	2.0173	3.1125	1.7733	2.8512	5.1430	6.0380	2.4877	3.5421	2.1872	3.2416	4.4350	5.3300	2.2580	3.0182	1.8288	2.8928
25-35	3.4416	4.6656	1.7216	2.9456	1.4776	2.7016	4.7952	6.0192	2.1920	3.4160	1.8915	3.1155	4.2128	5.4368	2.2032	3.4272	1.7037	2.9277
25-61	3.4304	4.4848	1.7282	2.7648	1.4841	2.5208	4.7840	5.8384	2.1808	3.2352	1.8803	2.9347	4.2016	5.2560	2.1920	3.2464	1.6912	2.7456

All weight measurements are for reference only.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

38999

- III
- HD
- Dualok
- II
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- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

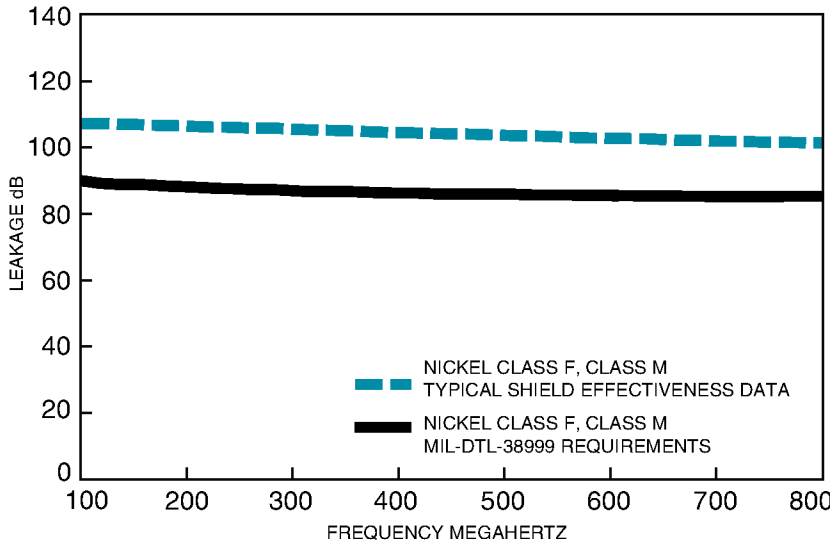
- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

TRI-START, SERIES III
TYPICAL SHIELDING EFFECTIVENESS TEST DATA
EMI/EMP SHIELDING EFFECTIVENESS dB
TESTING BY TRIAXIAL METHOD

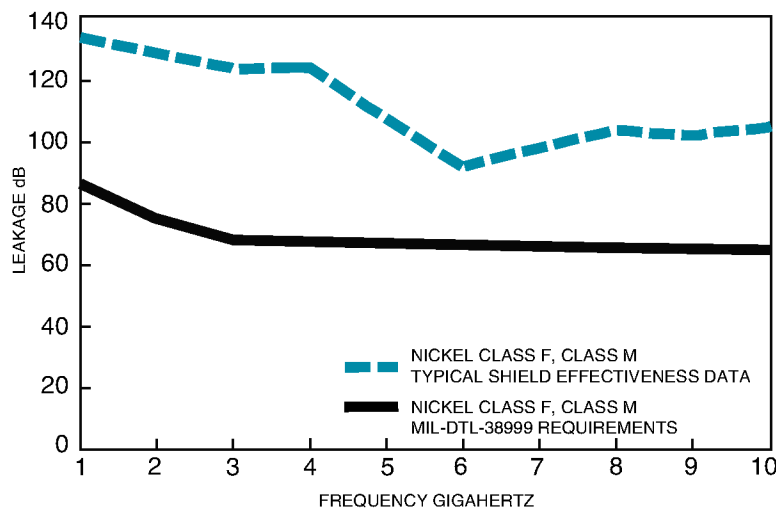


Amphenol® Tri-Start connectors provide EMI/EMP shielding capability which exceeds MIL-DTL-38999 Series III requirements.

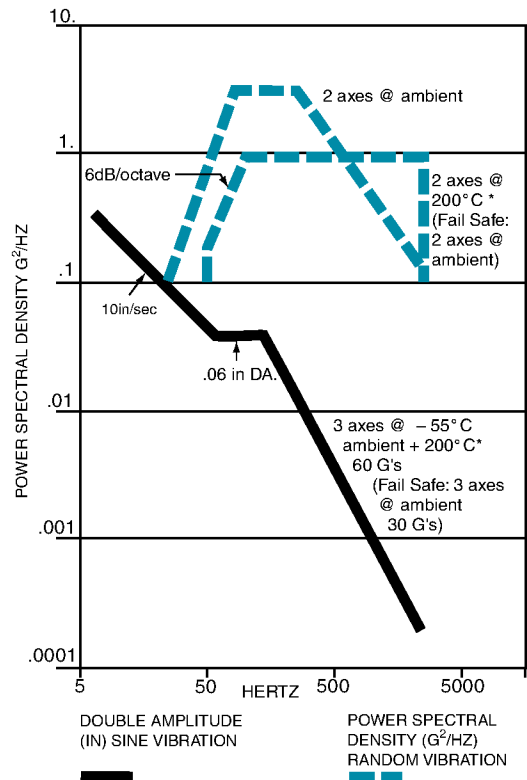
The TV and CTV Series III connector with standard solid metal-to-metal coupling, EMI grounding fingers and conductive finishes have proven to be the ultimate in EMI/EMP shielding effectiveness. The charts illustrate shielding effectiveness data which is typical of Tri-Start connectors tested with the nickel finish (Class F-metal, Class M-composite) over a wide frequency range.

The vibration capability of the Tri-Start Series is shown in the chart below. This illustrates the most severe vibration envelope of any qualified connector available today. These capabilities along with a +200°C, -65°C temperature rating and superior moisture sealing protection provide the user with a connector that can withstand the most rigorous application.

TRI-START, SERIES III
TYPICAL SHIELDING EFFECTIVENESS TEST DATA
EMI/EMP SHIELDING EFFECTIVENESS dB
TESTING BY MODE STIRRING METHOD



TRI-START VIBRATION CRITERIA



* Dependant on shell finish

Test data beyond 2GHz is subject to equipment variation.

NOTE: For test data information on the new Clutch-Lok Tri-Start, high vibration connectors, consult Amphenol Aerospace.

Easy Steps to build a part number... Tri-Start Series III TV

1.	2.	3.	4.	5.	6.	7.
Commercial	Shell Style	Service Class	Shell Size- Insert Arrangement	Contact Type	Alternate Keying Position	Special Variations
TVPS	00	RF	9-35	P	B	(XXX)
Military	Shell Style	Service Class	Shell Size- Insert Arrangement	Contact Type	Alternate Keying Position	
D38999/	20	J	G35	P	N	

Step 1. Select a Connector Type

Do you need a Mil-Spec marked connector?

Military-MIS-Spec Market	
D38999	Military MIL-DTL-38999 Series III Connector

If you don't need Mil-Spec Marked Connector select from the choices below.

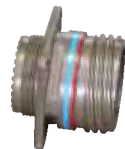
Next question to help you decide. What Shell Material & Temperature rating do you need?

Aluminum 175°C	
TV	Tri-Start 175°C
TVP	Panel mounted receptacle 175°C
Aluminum, Aluminum Bronze & Steel 200°C	
TVS	200°C rated
TVPS	Panel mounted, 200°C rated receptacle
Composite 175°C	
CTV	Composite 175°C
CTVP	Panel mounted composite receptacle 175°C
Composite 200°C	
CTVS	200°C rated, composite
CTVPS	Composite Panel mounted, 200° rated receptacle
Steel 200°C	
MTV	CLUTCH-LOK connector with "MS" stamping (Note: remove dashes in how to order part number when ordering CLUTCH-LOK)

Step 2. Select a Shell Style

COMMERCIAL				MILITARY			Designates
TVP, TVPS, CTVP, CTVPS	TV, CTV	TVS	CTVS	CLUTCH-LOK	D38999 Military	D38999 Military Composite		MTV, D38999 CLUTCH-LOK
00					20	20	Wall Mount Receptacle
02							Box Mount Receptacle
					21		Box Mount Receptacle Hermetic
	01	01	01				Line Receptacle
	06	06	06		26	26	Straight Plug
	07	07	07		24	24	Jam Nut Receptacle
	09	09					Flange Mounted Plug
					23		Jam Nut Receptacle Hermetic
		I			25		Solder Mount Receptacle Hermetic
		HI			27		Weld Mounted Receptacle, (Hermetic) Only
	56	56	56				Straight plug with Dualok
				26		26	CLUTCH-LOK high vibration straight plug (Class RK only)
					29		Lanyard release plug with pin contacts
					30		Lanyard release plug with socket contacts
					31		Lanyard release plug for MIL-STD-1760 with pin contacts
					32		Plug protection cap
					33		Receptacle protection cap

Wall Mount Receptacle (00, 20)



Line Receptacle (01)



Box Mount Receptacle (02, 21)



Straight Plug (06)



Jam Nut Receptacle (07, 24)



Flange Mounting Plug (09)



Deep Reach Receptacle Consult Amphenol Aerospace



Solder Mount Hermetic Receptacle (I, 25)



Lanyard Release Plug (29, 30, 31)



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

38999

Step 3. Select a Service Class

1. Connector Type	2. Shell Style	3. Service Class	4. Shell Size-Insert Arrg.	5. Contact Type	6. Alternate Position	7. Special Variations
		RX				

TV	TVP	CTV	CTVP	CTVS, CTVPS	TVS	TVPS	CLUTCH-LOK	Military	Finish	ROHS	Description
					RB	RB			Aluminum Bronze	TBD	Corrosion resistant aluminum bronze for marine & other high corrosion applications, 200°C.
								C	Anodic Coating	■	Non-conductive, anodic coated aluminum, 500 hour salt spray, 200°C.
RX	RX				RX	RX				TBD	Consult Amphenol Aerospace for details, options and availability of non-cadmium or ROHS Compliant Finishes.
				RF-Composite	RF-Metal	RF-Metal		F-Metal M-Composite	Electroless Nickel	■	Electroless nickel plated aluminum (composite) optimum EMI shielding effectiveness -65dB @ 10GHz specification min., 48 hour salt spray, 200°C (Composite-2000 hours dynamic salt spray).
				RGF-Composite	RGF-Metal	RGF-Metal			Electroless Nickel	■	Electroless nickel plated ground plane aluminum (composite), 200°C
								G	Electroless Nickel	■	Space grade, electroless nickel, 48 hour salt spray, 200°C
RGW-Metal	RGW-Metal	RGW-Composite	RGW-Composite						Olive Drab Cadmium		Olive drab cadmium plated ground plane aluminum (composite), 175°C
					RK**	RK**	RK**	K	Passivated Stainless Steel	■	Corrosion resistant stainless steel, firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 200°C
					RKN	RKN			Passivated Stainless Steel	■	Corrosion resistant stainless steel, non-firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 200°C
					RL	RL		L	Stainless Steel w/ Nickel Plate	■	Corrosion resistant steel, electro deposited nickel, 500 hour salt spray, 200°C, non firewall, EMI shielding -65dB @ 10GHz specification min.
RW-Metal	RW-Metal	RW-Composite	RW-Composite					W-Metal J-Composite	Olive Drab Cadmium		Corrosion resistant olive drab cadmium plate aluminum (composite), 500 hour salt spray, EMI Shielding -50 dB @ 10 GHz specification min., 175°C (Composite - 2000 hours dynamic salt spray).
					Y	Y		Y	Stainless Steel	■	Hermetic seal, passivated stainless steel, 200°C
					RS*	RS*	RS*	S	Stainless Steel w/ Nickel Plate	■	(Non-hermetic connectors), Nickel plated, corrosion resistant steel, firewall capability, 500 hour salt spray, 200°, EMI shielding -65dB @ 10GHz specification min.
					YN	YN		N	Stainless Steel w/ Nickel Plate	■	(Hermetic connectors), Nickel plated corrosion resistant steel, 200°C
DT	DT							T	Durmalon plated	■	Nickel-PTFE alternative to Cadmium. Corrosion resistant, 500 hour salt spray, EMI -50dB at 10GHz specification min., 175°C
DZ	DZ							Z	Zinc-Nickel Plated	TBD	Zinc-Nickel Alternative to Cadmium, corrosion resistant, 500 hour salt spray, Conductive, -65°C to +175°C, EMI Shielding -50 dB @ 10 GHz specification min.

* Consult Amphenol Aerospace for availability. **Coaxial arrangements are not available in these classes.

Quadrax or Differential Twinax:

The incorporation of Quadrax or Differential Twinax contacts requires a modified connector to accommodate keyed contacts.

* D38999/26KJ20PN, is a series III stainless steel plug with twin axial and coaxial contacts that may not meet the firewall requirement of the specification. D38999/26KJ61HN, is a series III stainless steel plug with high durability contacts. However, the connector will be limited to 500 cycles of durability. Insert arrangements using multi-axial (i.e. coax, twinax, triax shielded) contacts should not be used in firewall applications.

Step 4. Select a Shell Size & Insert Arrangement
Arrangement see pages 6-9

Double Start Threads	Triple Start Threads										Mil Shell Size
	A	B	C	D	E	F	G	H	J		
7	7H	9	11	13	15	17	19	21	23	25	Amphenol Shell size

1. Connector Type	2. Shell Style	3. Service Class	4. Shell Size-Insert Arrg.	5. Contact Type	6. Alternate Position	7. Special Variations
			23-2			

Shell Size & Insert Arrangement are on pages 6-9. First number represents Shell Size, second number is the Insert Arrangement.

* Size 7 and 7H are Double Start Threads only

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts
H	1500 Cycle Pin Contacts
J	1500 Cycle Socket Contacts
A	Same as "P" except supplied less pin Contacts
B	Same as "S" except supplied less socket contacts (A & B designate nonstandard contact applications)
X	Eyelet contacts, hermetics only

Step 6. Select an Alternate Keying Position

Key/Keyway Position

Shell Size	Key & Keyway Arrangement Identification Letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
7, 7H	N*	120	240		
	A	132	248		
	B	80	230	NA	NA
	C	140	275		
	D	155	234		
9	N*	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	N*	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
17 and 19	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
21, 23, and 25	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
25L, 33, and 37	N*	80	142	188	293
	A	135	170	188	310
	B	49	169	188	244
	C	66	140	188	257
	D	62	145	188	280
	N*	80	142	188	272
	A	135	170	188	272
	B	49	169	188	244
	C	66	140	188	257
	D	62	145	188	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280
	N*	80	153	197	272
	A	135	170	197	272
	B	49	169	197	244
	C	66	140	197	257
	D	62	145	197	280

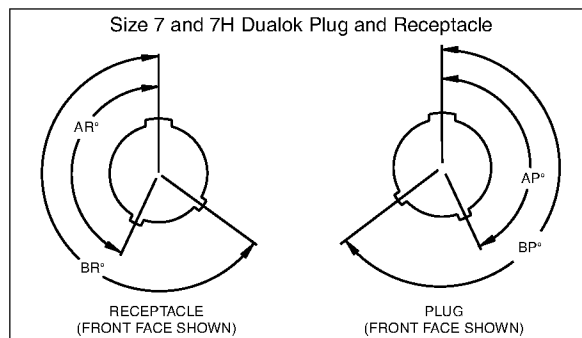
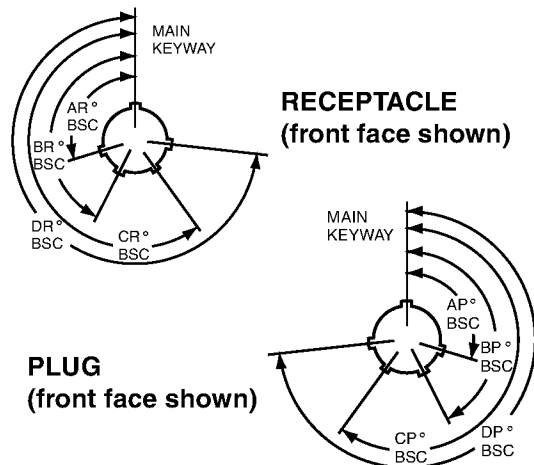
* An "N" designation is used on D38999 military part number but not on the commercial versions

Step 7. Special Variations

Consult Amphenol Aerospace for variations.

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arr.	Contact Type	Alternate Position	Special Variations
				P	B	

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Master key stays fixed, minor keys rotate. Inserts are not rotated in conjunction with the master key/keyway.



1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arr.	Contact Type	Alternate Position	Special Variations
						(xxx)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

38999

Easy Steps to build a part number... Boeing BACC63 CT & CU

1. 2. 3. 4. 5. 6. 7. 8.

Boeing Basic Number	Style	Shell Size	Shell Finish & Contact	Insert Arrangement	Contact Type	Alternate Keying Position	Ordering Option
BACC63	CT	15	—	19	P	N	H

Composite

Step 1. Boeing Number BACC63

Step 2. Select a Style

	Designates
CT	Composite Plug
CU	Composite Receptacle

Step 3. Shell Size 15

	Designates
15	One Shell Size

Step 4. Select a Shell Finish & Contact

	Designates
C	CT Style Only. Cadmium Plated, Grounded
D	Cadmium Plated, ungrounded
G	Nickel Plated, Grounded
—	Nickel Plated, Ungrounded

Step 5. Insert Arrangements-
Consult Amphenol Aerospace for insert arrangements available.

Step 6. Select a Contact Type

	Designates
P	Pin
S	Socket

Step 7. Select an Alternate Keying Position

	Designates
N	Normal
A-E	Alternates

Step 8. Ordering Option

	Designates
H	Without Contacts & Seal Plugs
Blank	With Contacts & Seal Plugs

Easy Steps to build a part number... Boeing BACC63 DB & DC

1. 2. 3. 4. 5. 6. 7. 8.

Boeing Basic Number	Style	Shell Size	Separator	Insert Arrangement	Contact Type	Alternate Keying Position	Ordering Option
BACC63	DB	15	—	19	P	N	H
BACC63	DC	17	—	8	P	N	H

Stainless Steel

Step 1. Boeing Number BACC63

Step 2. Select a Style

	Designates
DB	Stainless Steel Plug
DC	Stainless Steel Receptacle

Step 3. Select a Shell Size

	Designates
9-25	Shell Size

Step 4. Separator

	Designates
—	Separator

Step 5. Insert Arrangements-
Consult Amphenol Aerospace for insert arrangements available.

Step 6. Select a Contact Type

	Designates
P	Pin
S	Socket

Step 7. Select an Alternate Keying Position

	Designates
N	Normal
A-E	Alternates

Step 8. Ordering Option

	Designates
H	Without Contacts & Seal Plugs
Blank	With Contacts & Seal Plugs

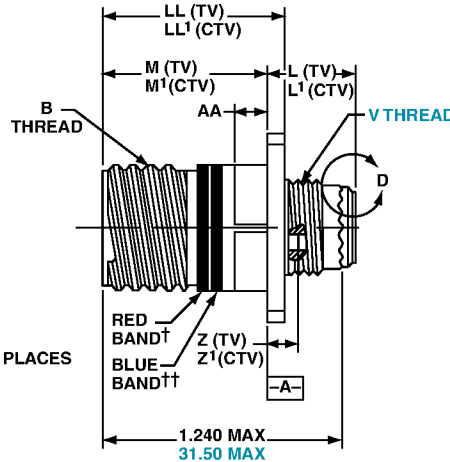
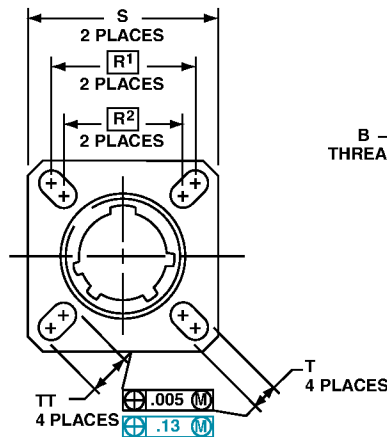
TVP00R (D38999/20) - Crimp, Metal CTVP00R (D38999/20) - Crimp, Composite

Wall Mounting Receptacle

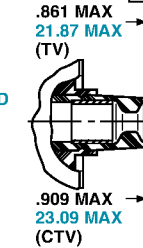
PART

To complete, see how to order pages 25-27.

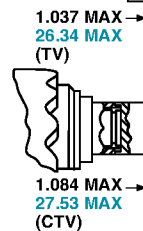
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVP	00	RW	9-35	P	B	(453)
TVPS	00	RK	X-X	X	X	(XXX)
TVPS	00	RF	X-X	X	X	(XXX)
TVPS	00	RS	X-X	X	X	(XXX)
CTVP	00	RW	X-X	X	X	(XXX)
CTVPS	00	RF	X-X	X	X	(XXX)
D38999/	20	X	X-X	X	X	NA



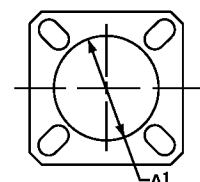
VIEW D FOR SIZE 8 COAXIAL ONLY, RELATIVE TO -A-



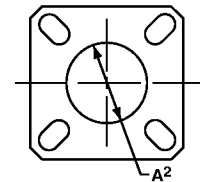
VIEW D FOR SIZE 8 TWINAX ONLY, RELATIVE TO -A-



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING



FRONT PANEL MOUNTING

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L Max. (TV)	L' Max. (CTV)	M +.000 - .005 (TV)	M' +.000 - .005 (CTV)	R ¹	R ²	S Max.	T ±.008	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL1 ±.005 (CTV)	TT ±.008
9	A	.6250	.469	.514	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.469	.514	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.469	.514	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.469	.514	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.469	.514	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.469	.514	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.500	.545	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.500	.545	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.500	.545	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

Inches

Shell Size	MS Shell Size Code	L Max. (TV)	L' Max. (CTV)	M +.00 - .13 (TV)	M' +.00 - .13 (CTV)	R ¹	R ²	S Max.	T ±.20	V Thread Metric	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max.	LL +.15 - .00 (TV)	LL1 ±.13 (CTV)	TT ±.20
9	A	11.91	13.06	20.83	19.63	18.26	15.09	24.1	3.25	M12X1-6g	3.89	5.03	16.66	13.11	5.94	22.99	23.06	5.49
11	B	11.91	13.06	20.83	19.63	20.62	18.26	26.5	3.25	M15X1-6g	3.89	5.03	20.22	15.88	5.94	22.99	23.06	4.93
13	C	11.91	13.06	20.83	19.63	23.01	20.62	28.9	3.25	M18X1-6g	3.89	5.03	23.42	19.05	5.94	22.99	23.06	4.93
15	D	11.91	13.06	20.83	19.63	24.61	23.01	31.3	3.25	M22X1-6g	3.89	5.03	26.59	23.01	5.94	22.99	23.06	4.39
17	E	11.91	13.06	20.83	19.63	26.97	24.61	33.7	3.25	M25X1-6g	3.89	5.03	30.96	25.81	5.94	22.99	23.06	4.93
19	F	11.91	13.06	20.83	19.63	29.36	26.97	36.9	3.25	M28X1-6g	3.89	5.03	32.94	28.98	5.94	22.99	23.06	4.93
21	G	12.70	13.84	20.07	18.82	31.75	29.36	40.1	3.25	M31X1-6g	4.65	5.79	36.12	32.16	5.18	22.99	22.96	4.93
23	H	12.70	13.84	20.07	18.82	34.93	31.75	43.3	3.91	M34X1-6g	4.65	5.79	39.29	34.93	5.18	22.99	22.96	6.15
25	J	12.70	13.84	20.07	18.82	38.10	34.93	46.4	3.91	M37X1-6g	4.65	5.79	42.47	37.69	5.18	22.99	22.96	6.15

Millimeters

All dimensions for reference only

Designates true position dimensioning

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix I/Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

Box Mounting Receptacle

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

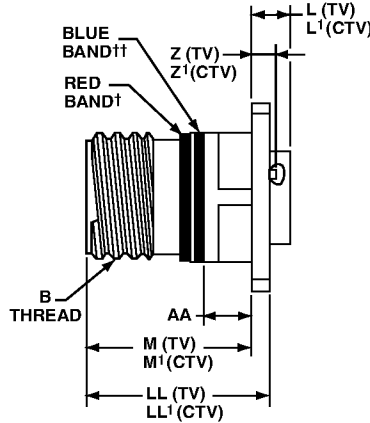
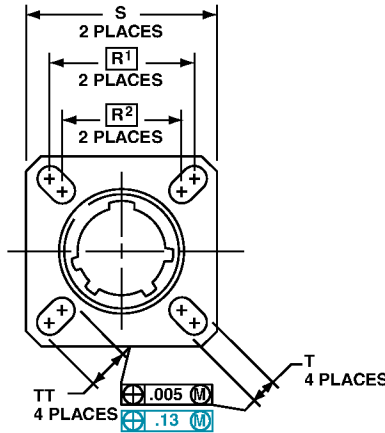
- Back-Shells

- Options Others

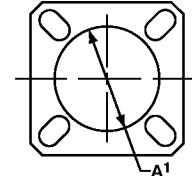
PART

To complete, see how to order pages 25-27.

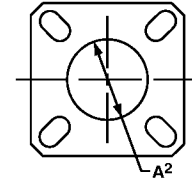
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVP	02	RW	9-35	P	B	(453)
TVPS	02	RK	X-X	X	X	(XXX)
TVPS	02	RF	X-X	X	X	(XXX)
TVPS	02	RS	X-X	X	X	(XXX)
CTVP	02	RW	X-X	X	X	(XXX)
CTVPS	02	RF	X-X	X	X	(XXX)



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING



FRONT PANEL MOUNTING

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Consult Amphenol Aerospace for availability of composite box mount receptacles.

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P=0.3L-TS (Plated)	L Max. (TV)	L' Max. (CTV)	M +.000 - .005 (TV)	M' +.000 - .005 (CTV)	R ¹	R ²	S Max.	T ±.008	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL1 ±.005 (CTV)	TT ±.008
9	A	.6250	.205	.250	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.205	.250	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.205	.250	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.205	.250	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.205	.250	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.205	.250	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.235	.280	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.235	.280	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.235	.280	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

Millimeters

Shell Size	MS Shell Size Code	L Max. (TV)	L' Max. (CTV)	M +.000 - .13 (TV)	M' +.000 - .13 (CTV)	R ¹	R ²	S Max.	T ±.20	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max.	LL +.15 - .00 (TV)	LL1 ±.13 (CTV)	TT ±.20
9	A	5.21	6.35	20.83	19.63	18.26	15.09	24.1	3.25	3.89	5.03	16.66	13.11	5.94	22.99	23.06	5.49
11	B	5.21	6.35	20.83	19.63	20.62	18.26	26.5	3.25	3.89	5.03	20.22	15.88	5.94	22.99	23.06	4.93
13	C	5.21	6.35	20.83	19.63	23.01	20.62	28.9	3.25	3.89	5.03	23.42	19.05	5.94	22.99	23.06	4.93
15	D	5.21	6.35	20.83	19.63	24.61	23.01	31.3	3.25	3.89	5.03	26.59	23.01	5.94	22.99	23.06	4.39
17	E	5.21	6.35	20.83	19.63	26.97	24.61	33.7	3.25	3.89	5.03	30.96	25.81	5.94	22.99	23.06	4.93
19	F	5.21	6.35	20.83	19.63	29.36	26.97	36.9	3.25	3.89	5.03	32.94	28.98	5.94	22.99	23.06	4.93
21	G	5.97	7.11	20.07	18.82	31.75	29.36	40.1	3.25	4.65	5.79	36.12	32.16	5.18	22.99	22.96	4.93
23	H	5.97	7.11	20.07	18.82	34.92	31.75	43.3	3.91	4.65	5.79	39.29	34.93	5.18	22.99	22.96	6.15
25	J	5.97	7.11	20.07	18.82	38.10	34.92	46.4	3.91	4.65	5.79	42.47	37.69	5.18	22.99	22.96	6.15

All dimensions for reference only

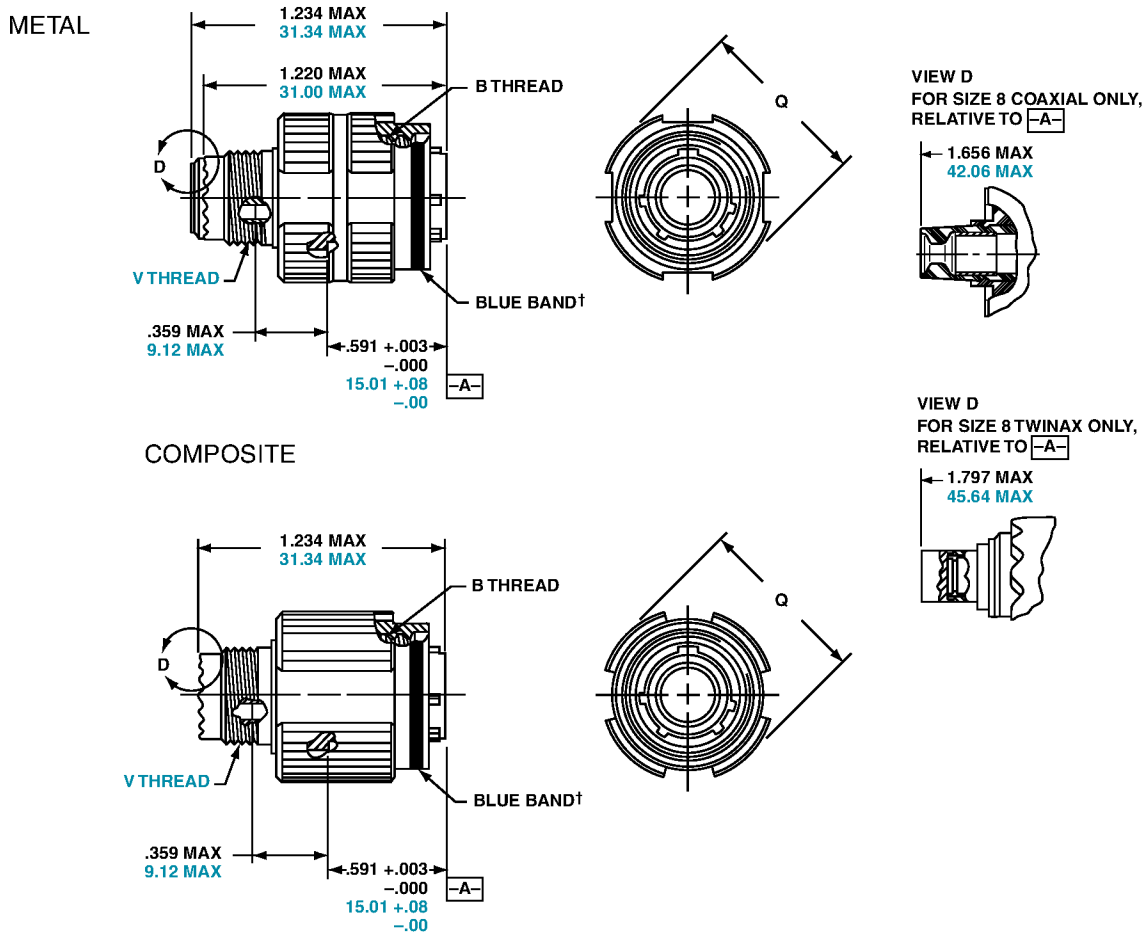
□ Designates true position dimensioning

Straight Plug

PART

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	06	RW	9-35	P	B	(453)
TVS	06	RK	X-X	X	X	(XXX)
TVS	06	RF	X-X	X	X	(XXX)
TVS	06	RS	X-X	X	X	(XXX)
CTV	06	RW	X-X	X	X	(XXX)
CTVS	06	RF	X-X	X	X	(XXX)
D38999/	26	X	X-X	X	X	NA



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2B (Plated)	Q Dia. Max.
9	A	.6250	.858
11	B	.7500	.984
13	C	.8750	1.157
15	D	1.0000	1.280
17	E	1.1875	1.406
19	F	1.2500	1.516
21	G	1.3750	1.642
23	H	1.5000	1.768
25	J	1.6250	1.890

All dimensions for reference only.

Millimeters

Shell Size	MS Shell Size Code	Q Max.	V Thread Metric
9	A	21.8	M12X1-6g
11	B	25.0	M15X1-6g
13	C	29.4	M18X1-6g
15	D	32.5	M22X1-6g
17	E	35.7	M25X1-6g
19	F	38.5	M28X1-6g
21	G	41.7	M31X1-6g
23	H	44.9	M34X1-6g
25	J	48.0	M37X1-6g

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART #

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	26	RK	9-35	P	N	(453)
TV	26	RS	X-X	X	N	(XXX)
MTV	26	RK	X-X	X	N	(XXX)
MTV	26	RS	X-X	X	N	(XXX)

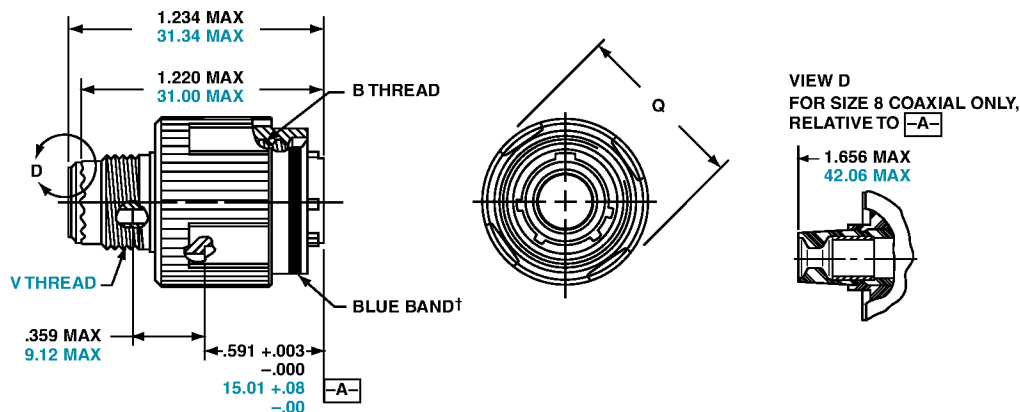
For parts with MS Stamping use MTV26() part number as shown above.

Designed for high vibration and harsh environments such as aircraft gas turbine engines, the CLUTCH-LOK is also an ideal choice for demanding applications such as aircraft, space and military ground vehicles. The unique clutch design of the Amphenol CLUTCH-LOK means that you don't have to compromise the need for quick, smooth mating of plugs and receptacles in order to get increased uncoupling torque.

The CLUTCH-LOK has proven to not only remain mated and pass all the Series III specification requirements, it also has proven to actually tighten itself under vibration. This is a powerful advantage over the traditionally high vibration application connectors. The CLUTCH-LOK is also a tremendous advantage in inaccessible, hard to reach areas where mating torque is difficult to apply and complete coupling is not verifiable by inspection.

CLUTCH-LOK features and benefits:

- High degree of differential torque
- Infinite free coupling and positive metal-to-metal bottoming with each mating
- No settling back to the next ratchet tooth
- Available with stainless steel shells and Class K firewall inserts
- All the advantages of MIL-DTL-38999 Series III including EMI/RFI shielding, electrolytic erosion resistance and contact protection with recessed pins
- Enhanced connector performance at affordable prices
- Completely intermateable with all existing MIL-DTL-38999 Series III connectors
- Fully QPL'd



† Blue band indicates rear release contact retention system

Inches

Millimeters

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2B (Plated)	Q Dia. Max.
9	A	.6250	.858
11	B	.7500	.984
13	C	.8750	1.157
15	D	1.0000	1.280
17	E	1.1875	1.406
19	F	1.2500	1.516
21	G	1.3750	1.642
23	H	1.5000	1.768
25	J	1.6250	1.890

Shell Size	MS Shell Size Code	Q Max.	V Thread Metric
9	A	21.8	M12X1-6g
11	B	25.0	M15X1-6g
13	C	29.4	M18X1-6g
15	D	32.5	M22X1-6g
17	E	35.7	M25X1-6g
19	F	38.5	M28X1-6g
21	G	41.7	M31X1-6g
23	H	44.9	M34X1-6g
25	J	48.0	M37X1-6g

All dimensions for reference only.

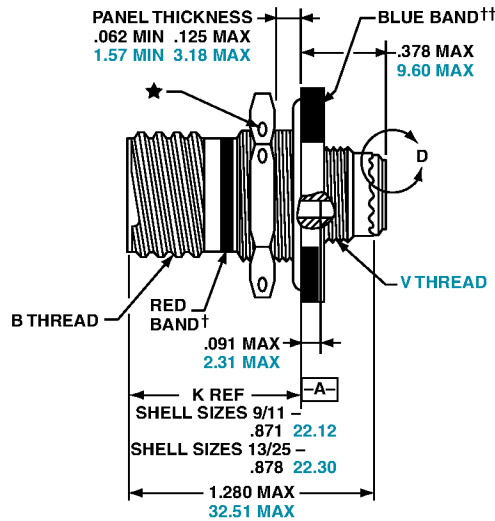
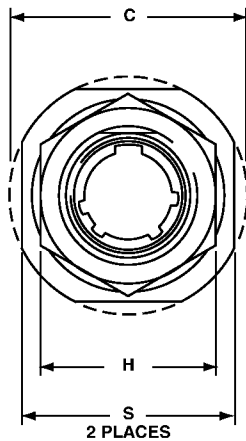
TV07R (D38999/24) – Crimp, Metal CTV07R (D38999/24) – Crimp, Composite

Jam Nut Receptacle

PART

To complete, see how to order pages 25-27.

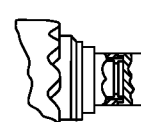
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	07	RW	9-35	P	B	(453)
TVS	07	RK	X-X	X	X	(XXX)
TVS	07	RF	X-X	X	X	(XXX)
TVS	07	RS	X-X	X	X	(XXX)
CTV	07	RW	X-X	X	X	(XXX)
CTVS	07	RF	X-X	X	X	(XXX)
D38999/	24	X	X-X	X	X	NA



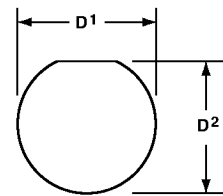
VIEW D FOR SIZE 8 COAXIAL ONLY, RELATIVE TO -A-



VIEW D FOR SIZE 8 TWINAX ONLY, RELATIVE TO -A-



PANEL HOLE DIMENSIONS



JAM NUT D-HOLE MOUNTING

- † Red band indicates fully mated
- †† Blue band indicates rear release contact retention system
- ★ .059 dia min.
- 1.5 dia min., 3 lockwire holes Formed lockwire hole design (6 holes) is optional Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max.	D ¹ +.010 -0.000	D ² +.000 -0.010	H Hex +.017 -0.016	S ±.010
9	A	.6250	1.199	.693	.657	.875	1.062
11	B	.7500	1.386	.825	.770	1.000	1.250
13	C	.8750	1.511	1.010	.955	1.188	1.375
15	D	1.0000	1.636	1.135	1.085	1.312	1.500
17	E	1.1875	1.761	1.260	1.210	1.438	1.625
19	F	1.2500	1.949	1.385	1.335	1.562	1.812
21	G	1.3750	2.073	1.510	1.460	1.688	1.938
23	H	1.5000	2.199	1.635	1.585	1.812	2.062
25	J	1.6250	2.323	1.760	1.710	2.000	2.188

Millimeters

Shell Size	MS Shell Size Code	C Max.	D ¹ +.25 -0.00	D ² +.00 -0.25	H Hex +.43 -0.41	S ±.25	V Thread Metric
9	A	30.45	17.60	16.70	22.23	26.97	M12X1-6g
11	B	35.20	20.96	19.59	25.40	31.75	M15X1-6g
13	C	38.38	25.65	24.26	30.18	34.93	M18X1-6g
15	D	41.55	28.83	27.56	33.32	38.10	M22X1-6g
17	E	44.73	32.01	30.73	36.53	41.28	M25X1-6g
19	F	49.50	35.18	33.91	39.67	46.02	M28X1-6g
21	G	52.65	38.35	37.08	42.80	49.23	M31X1-6g
23	H	55.85	41.53	40.26	46.02	52.37	M34X1-6g
25	J	59.00	44.70	43.43	50.80	55.58	M37X1-6g

All dimensions for reference only NOTE: Deep reach receptacles are available for panel thicknesses up to .750 max.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-
- Shells

- Options
- Others

Line Receptacle

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix I Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

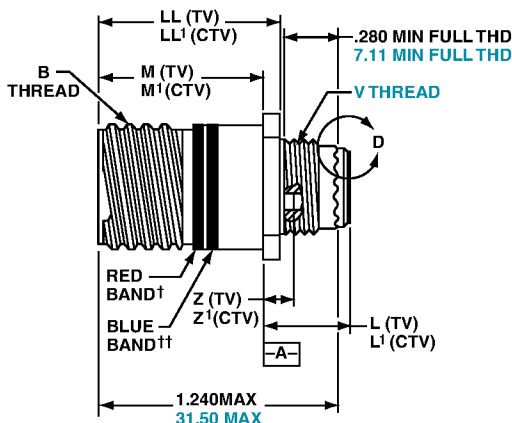
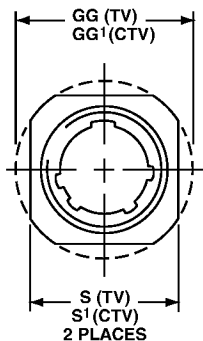
- Back-Shells

- Options
- Others

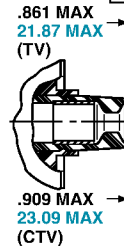
PART

To complete, see how to order pages 25-27.

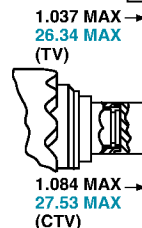
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	01	RW	9-35	P	B	(453)
TVS	01	RF	X-X	X	X	(XXX)
CTV	01	RW	X-X	X	X	(XXX)
CTVS	01	RF	X-X	X	X	(XXX)



VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-



VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2A (Plated)	M +.000 - .005 (TV)	M' +.000 - .005 (CTV)	L Max. (TV)	L' Max. (CTV)	S ±.010 (TV)	S' ±.010 (CTV)	Z Max (TV)	Z' Max (CTV)	GG ±.010 (TV)	GG' ±.010 (CTV)	LL +.006 - .000 (TV)	LL' ±.005 (CTV)
9	A	.6250	.820	.773	.469	.514	.675	.635	.153	.198	.812	.699	.905	.908
11	B	.7500	.820	.773	.469	.514	.800	.765	.153	.198	.905	.875	.905	.908
13	C	.8750	.820	.773	.469	.514	.925	.885	.153	.198	1.093	1.007	.905	.908
15	D	1.0000	.820	.773	.469	.514	1.050	1.100	.153	.198	1.219	1.140	.905	.908
17	E	1.1875	.820	.773	.469	.514	1.238	1.197	.153	.198	1.375	1.229	.905	.908
19	F	1.2500	.820	.773	.469	.514	1.300	1.260	.153	.198	1.469	1.380	.905	.908
21	G	1.3750	.790	.741	.500	.545	1.425	1.385	.183	.228	1.625	1.493	.905	.904
23	H	1.5000	.790	.741	.500	.545	1.550	1.510	.183	.228	1.750	1.626	.905	.904
25	J	1.6250	.790	.741	.500	.545	1.675	1.635	.183	.228	1.875	1.777	.905	.904

Millimeters

Shell Size	MS Shell Size Code	M +.00 - .013 (TV)	M' +.00 - .13 (CTV)	L Max. (TV)	L' Max. (CTV)	S ±.25 (TV)	S' ±.010 (CTV)	V Thread Metric	Z Max (TV)	Z' Max (CTV)	GG ±.25 (TV)	GG' ±.25 (CTV)	LL +.15 - .00 (TV)	LL' ±.13 (CTV)
9	A	20.83	19.63	11.91	13.06	17.15	16.13	M12X1-6g	3.89	5.03	20.62	17.75	22.99	23.06
11	B	20.83	19.63	11.91	13.06	20.32	19.43	M15X1-6g	3.89	5.03	22.99	22.22	22.99	23.06
13	C	20.83	19.63	11.91	13.06	23.50	22.47	M18X1-6g	3.89	5.03	27.76	25.57	22.99	23.06
15	D	20.83	19.63	11.91	13.06	26.67	27.94	M22X1-6g	3.89	5.03	30.96	28.95	22.99	23.06
17	E	20.83	19.63	11.91	13.06	31.45	30.40	M25X1-6g	3.89	5.03	34.93	31.21	22.99	23.06
19	F	20.83	19.63	11.91	13.06	33.02	32.00	M28X1-6g	3.89	5.03	37.31	35.05	22.99	23.06
21	G	20.07	18.82	12.70	13.84	36.20	35.18	M31X1-6g	4.65	5.79	41.28	37.92	22.99	22.96
23	H	20.07	18.82	12.70	13.84	39.37	38.35	M34X1-6g	4.65	5.79	44.45	41.30	22.99	22.96
25	J	20.07	18.82	12.70	13.84	42.55	41.53	M37X1-6g	4.65	5.79	47.63	45.13	22.99	22.96

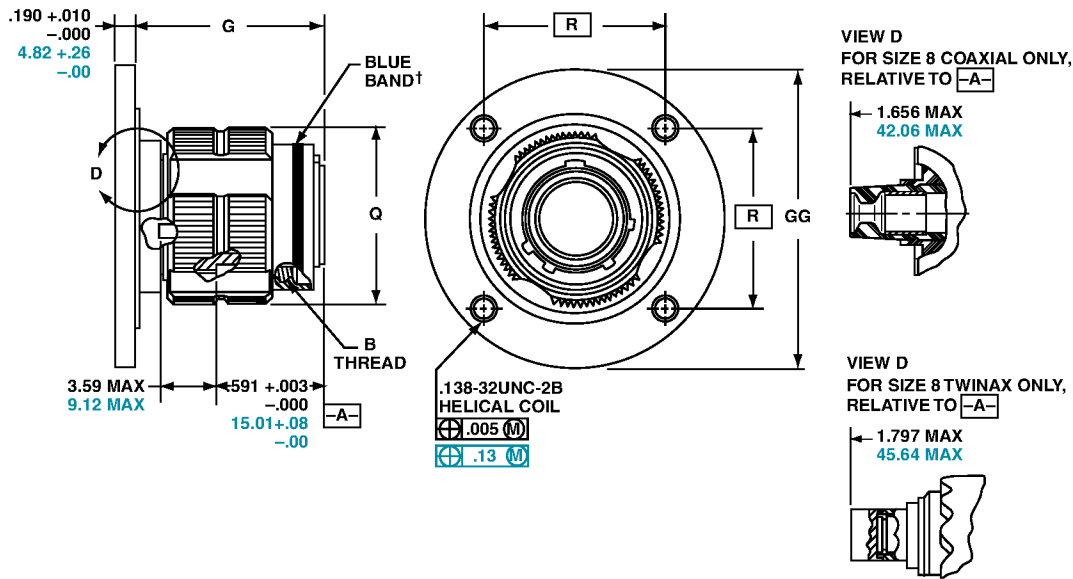
All dimensions for reference only

TV09R – Crimp, Metal Flange Mounting Plug

PART

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TV	09	RW	9-35	P	B	(453)
TVS	09	RF	X-X	X	X	(XXX)



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS-2A (Plated)	G ±.060	Q Dia. Max	R	GG Dia ±.005
9**	A	.6250	1.106	.859	1.038	1.838
11	B	.7500	1.106	.969	1.115	1.948
13**	C	.8750	1.106	1.141	1.240	2.124
15	D	1.0000	1.106	1.266	1.327	2.248
17	E	1.1875	1.106	1.391	1.417	2.375
19	F	1.2500	1.356	1.500	1.557	2.495
21	G	1.3750	1.356	1.625	1.624	2.568
23	H	1.5000	1.356	1.750	1.713	2.723
25	J	1.6250	1.356	1.875	1.801	2.848

Millimeters

Shell Size	MS Shell Size Coded	G ±.152	Q Dia. Max	R	GG Dia ±.13
9**	A	28.09	21.82	26.37	46.69
11	B	28.09	24.62	28.32	49.48
13**	C	28.09	28.98	31.50	53.95
15	D	28.09	32.16	33.71	57.10
17	E	28.09	35.33	35.99	60.33
19	F	34.44	38.10	39.55	63.37
21	G	34.44	41.28	41.25	65.23
23	H	34.44	44.45	43.51	69.16
25	J	34.44	47.63	45.75	72.34

All dimensions for reference only

** Partially tooled. Consult Amphenol Aerospace for availability

□ Designates true position dimensioning

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

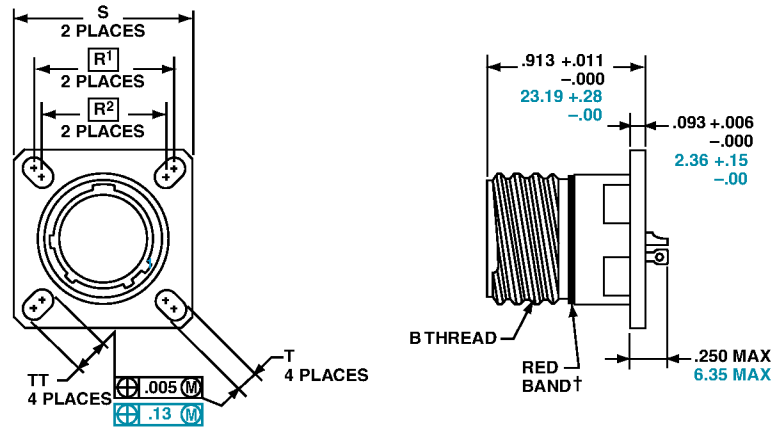
Options Others

38999

PART #

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVPS	02	Y	9-35	P	B	(453)
TVPS	02	YN	X-X	X	X	(XXX)
D38999/	21	X	X-X	X	X	NA



† Red band indicates fully mated

NOTE: Consult Amphenol Aerospace for availability of non-glass-sealed versions with printed circuit tail contacts.

Inches

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS (Plated)	R1	R2	S ±.010	T ±.008	TT ±.008
9	A	.6250	.719	.594	.938	.128	.216
11	B	.7500	.812	.719	1.031	.128	.194
13	C	.8750	.906	.812	1.125	.128	.194
15	D	1.0000	.969	.906	1.219	.128	.173
17	E	1.1875	1.062	.969	1.312	.128	.194
19	F	1.2500	1.156	1.062	1.438	.128	.194
21	G	1.3750	1.250	1.156	1.562	.128	.194
23	H	1.5000	1.375	1.250	1.688	.154	.242
25	J	1.6250	1.500	1.375	1.812	.154	.242

Millimeters

Shell Size	MS Shell Size Coded	R1	R2	S ±.25	T ±.20	TT ±.20
9	A	18.26	15.09	23.83	3.25	5.49
11	B	20.62	18.26	26.19	3.25	4.93
13	C	23.01	20.62	28.58	3.25	4.93
15	D	24.61	23.01	30.96	3.25	4.39
17	E	26.97	24.61	33.32	3.25	4.93
19	F	29.36	26.97	36.53	3.25	4.93
21	G	31.75	29.36	39.67	3.25	4.93
23	H	34.93	31.75	42.88	3.91	6.15
25	J	38.10	34.93	46.02	3.91	6.15

All dimensions for reference only

□ Designates true position dimensioning

TVS07Y (D38999/23) – Hermetic

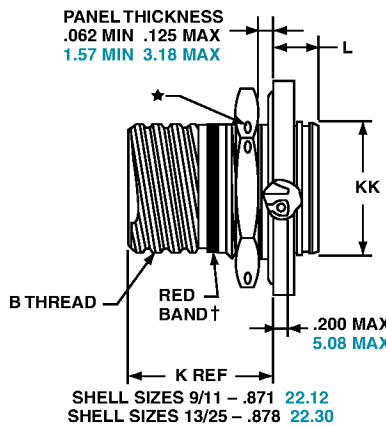
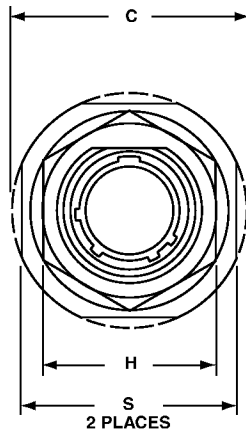
Stainless Steel

Jam Nut Receptacle

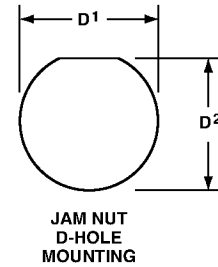
PART

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	07	Y	9-35	P	B	(453)
TVS	07	YN	X-X	X	X	(XXX)
D38999/	23	X	X-X	X	X	NA



PANEL HOLE DIMENSIONS



† Red band indicates fully mated

★ .059 dia min.

1.5 dia min. 3 lockwire holes

Formed lockwire hole design (6 holes) is optional.

Inches

Shell Size	MS Shell Size code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	D ¹ +.010 - .000	D ² +.000 - .010	H Hex +.017 - .016	L Max	S ±.010	KK +.011 - .000
9	A	.6250	1.199	.693	.657	.875	.357	1.062	.642
11	B	.7500	1.386	.825	.770	1.000	.357	1.250	.766
13	C	.8750	1.511	1.010	.955	1.188	.357	1.375	.892
15	D	1.0000	1.636	1.135	1.085	1.312	.357	1.500	1.018
17	E	1.1875	1.761	1.260	1.210	1.438	.357	1.625	1.142
19	F	1.2500	1.949	1.385	1.335	1.562	.381	1.812	1.268
21	G	1.3750	2.073	1.510	1.460	1.688	.381	1.938	1.392
23	H	1.5000	2.199	1.635	1.585	1.812	.381	2.062	1.518
25	J	1.6250	2.323	1.760	1.710	2.000	.381	2.188	1.642

Millimeters

Shell Size	MS Shell Size code	C Max	D ¹ +.25 - .00	D ² +.00 - .25	H Hex +.43 - .41	L Max	S ±.25	KK +.28 - .00
9	A	30.45	17.60	16.70	22.23	9.07	26.97	16.31
11	B	35.20	20.96	19.59	25.40	9.07	31.75	19.46
13	C	38.38	25.65	24.26	30.18	9.07	34.93	22.66
15	D	41.55	28.83	27.56	33.32	9.07	38.10	25.86
17	E	44.73	32.01	30.73	36.53	9.07	41.28	29.01
19	F	49.50	35.18	33.91	39.67	9.68	46.02	32.21
21	G	52.65	38.35	37.08	42.80	9.68	49.23	35.36
23	H	55.85	41.53	40.26	46.02	9.68	52.37	38.56
25	J	59.00	44.70	43.43	50.80	9.68	55.58	41.71

All dimensions for reference only

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

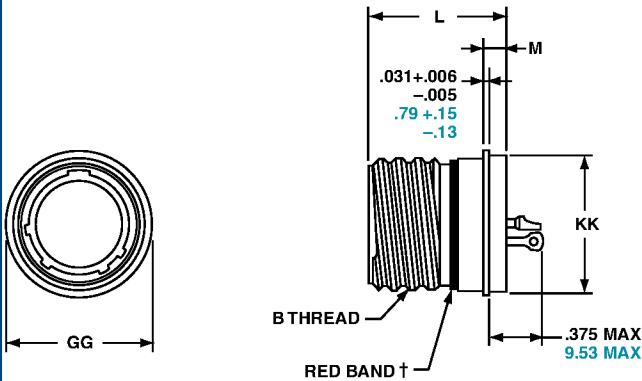
- Back-
- Shells

- Options
- Others

Solder Mounting Receptacle

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



† Red band indicates fully mated

Inches

Millimeters

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 -.005	M +.006 -.005	GG Dia. +.011 -.010	KK Dia +.011 -.005
9	A	.6250	.806	.125	.750	.672
11	B	.7500	.806	.125	.844	.781
13	C	.8750	.806	.125	.969	.906
15	D	1.0000	.806	.125	1.094	1.031
17	E	1.1875	.806	.125	1.218	1.156
19	F	1.2500	.806	.125	1.312	1.250
21	G	1.3750	.806	.125	1.438	1.375
23	H	1.5000	.838	.156	1.563	1.500
25	J	1.6250	.838	.156	1.688	1.625

Shell Size	MS Shell Size Code	L +.28 -.00	M +.15 -.13	GG Dia. +.28 -.25	KK Dia +.03 -.13
9	A	20.47	3.18	19.05	17.07
11	B	20.47	3.18	21.44	19.84
13	C	20.47	3.18	24.61	23.01
15	D	20.47	3.18	27.79	26.19
17	E	20.47	3.18	30.94	29.36
19	F	20.47	3.18	33.32	31.75
21	G	20.47	3.18	36.53	34.93
23	H	21.29	3.96	39.70	38.10
25	J	21.29	3.96	42.88	41.28

PART #

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	I	Y	9-35	P	B	(453)
TVS	I	YN	X-X	X	X	(XXX)
D38999/	25	X	X-X	X	X	NA

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix I Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

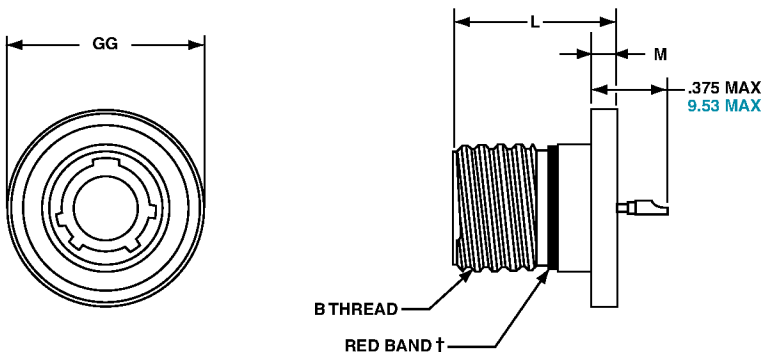
- 22992 Class I

- Back-Shells

- Options Others

TVSHIY (D38999/27) – Hermetic, Stainless Steel

Weld Mounting Receptacle



† Red band indicates fully mated

Inches

Millimeters

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010
9	A	.6250	.806	.125	.973
11	B	.7500	.806	.125	1.095
13	C	.8750	.806	.125	1.221
15	D	1.0000	.806	.125	1.347
17	E	1.1875	.806	.125	1.434
19	F	1.2500	.806	.125	1.579
21	G	1.3750	.806	.125	1.721
23	H	1.5000	.838	.156	1.886
25	J	1.6250	.838	.156	1.973

Shell Size	MS Shell Size Code	L +.28 -.00	M +.15 -.13	GG Dia. +.25 -.00
9	A	20.47	3.18	24.71
11	B	20.47	3.18	27.81
13	C	20.47	3.18	31.01
15	D	20.47	3.18	34.21
17	E	20.47	3.18	36.42
19	F	20.47	3.18	40.11
21	G	20.47	3.18	43.71
23	H	21.29	3.96	47.90
25	J	21.29	3.96	50.11

PART #

To complete, see how to order pages 25-27.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
TVS	HI	Y	9-35	P	B	(453)
TVS	HI	YN	X-X	X	X	(XXX)
D38999/	27	X	X-X	X	X	NA

All dimensions for reference only

Series III, TV Breakaway Fail Safe Connectors

Quick-Disconnect with an Axial Pull of Lanyard

38999

Amphenol® Tri-Start Breakaway Fail Safe Connectors provide unequalled performance in environments requiring instant disengagement.

Designed to provide quick disconnect of a connector plug and receptacle with an axial pull on the lanyard. The “Breakaway” Fail Safe connector family offers a wide range of electrical and mechanical features:

- Instant decoupling and damage free separation
- Completely intermateable with standard receptacles (D38999/20 and /24)
- Inventory support commonality through the use of standard insert arrangements and contacts

Breakaway unmating is initiated by applying a pull force to the lanyard which causes the operating sleeve on the plug to move away from the receptacle. Coupling segments on the plug then move away from the mating receptacle while expanding, thus releasing the receptacle. After completion of the unmating sequence, spring compression returns the sleeve and segments to their original positions. Unmating of the plug may also be accomplished by normal rotation of the coupling ring without affecting the breakaway capability.



Amphenol offers a variety of lanyard plug styles including MIL-STD-1760 types 1, 2 and 6 for Stores Management applications.

The Tri-Start Breakaway Fail Safe connector exceeds the MIL-Spec Series III requirements for EM/EMP shielding and features include:

- Solid metal-to-metal coupling
- EMI grounding fingers
- Conductive finishes

Amphenol Breakaway Fail Safe connectors are qualified to MIL-DTL-38999/29, /30 and /31 (for MIL-STD-1760 Stores Management applications). In fact, Amphenol offers more qualified Breakaway shell size and insert combinations than any other QPL supplier.

In addition to standard Breakaway connectors, Amphenol also manufactures custom breakaway connectors including those with:

- Highly durable non-metallic operating sleeves in a variety of lengths and diameters
- Increased pull-force capability
- Low-profile designs
- Custom lanyard lengths and backshells
- Low force separation capabilities
- Low insertion/separation force contacts
- Non-cadmium finishes

Whether you need a standard Breakaway, one of our custom Breakaways or a unique Breakaway design, please contact your local Amphenol representative.

Contact Amphenol Aerospace for more information on breakaway, quick-disconnect connectors. Other Amphenol circular families (MIL-DTL-26482, MIL-DTL-83723) also offer breakaway quick-disconnect connectors.

See accessories for breakaway connectors on page 111.



Breakaway with Coax Contacts



Special configuration Fail Safe used on space telescope application.

Lanyard is replaced by a swivel ring for remote disconnect and “wing arms” have been added for manual actuation accessibility by gloved astronauts.

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient
26482
Matrix 2
83723 III
Matrix | Pyle
26500
Pyle
5015
Crimp Rear Release Matrix
22992
Class 1
Backshells
Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

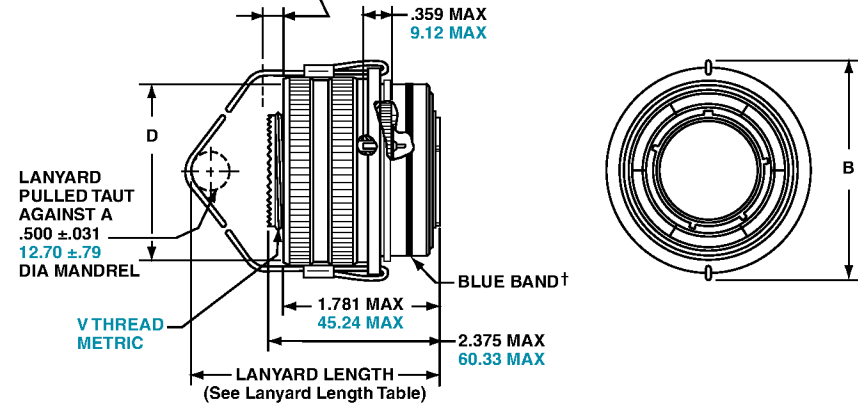
- Back-Shells

- Options Others

PART #	Connector Type	Shell Style	Shell Size & Insert Arrg	Lanyard Length Code	Contact Type/ Alternate Insert Rotation	
To complete, see how to order pages 41-42.	D38999	29	29	E	P	(Pins Only)
	D38999	30	X-X	X	X	(Sockets Only)
	88	5565	X-X	X	X	
	91	5565	X-X	X	X	

METAL

.374 MAX
9.50 MAX
OUTER SLEEVE MOVEMENT
DURING UNMATING THREAD RELEASE



† Blue band indicates rear release contact retention system

Inches

Shell Size	MS Shell Size Code	B Max	D Max Accessory Dia.
11	B	1.846	1.109
13	C	1.972	1.250
15	D	2.079	1.375
17	E	2.205	1.500
19	F	2.301	1.625
21	G	2.472	1.750
23	H	2.594	1.875
25	J	2.705	2.000

Millimeters

Shell Size	MS Shell Size Code	B Max	D Max Accessory Dia.	V Thread Metric
11	B	46.89	28.17	M15X1.0-6g
13	C	50.09	31.75	M18X1.0-6g
15	D	52.81	34.93	M22X1.0-6g
17	E	56.01	38.10	M25X1.0-6g
19	F	58.45	41.28	M28X1.0-6g
21	G	62.79	44.45	M31X1.0-6g
23	H	65.89	47.63	M34X1.0-6g
25	J	68.71	50.08	M37X1.0-6g

All dimensions for reference only

38999

Easy Steps to build a part number... **Military**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

DOD Number Prefix	Spec Sheet Number	Service Class	Shell Size	Insert Arrangement	Lanyard Length Code	Alternate Keying Position
D38999/	29	F	E	35	P	N

Step 1. DOD Number Prefix

D38999/ designates MIL-DTL-38999, Series III, Tri-Start Connector

Step 2. Select a Specification Sheet Number

29	Designates Lanyard Release Plug with pin contacts
30	Designates Lanyard Release Plug with socket contacts

Step 4. & 5 Insert Availability

Step 3. Select a Service Class

F	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB@10 GHz specification min., 48 hour salt spray, 200°C
W	Designates corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI -50dB@10 GHz specification min., 175°C

Commercial Basic Part# Shell & Insert Arrg. Code	Shell Size-Insert Arrangement	Military Shell Size-Insert Arrangement	Service Rating	Total Contacts	Contact Size							
					22D	20	16	12	12 Coax	8 Coax	8 Twinax	
88/91-556508	11-2	N/A	I	2			2					
06	11-35	N/A	M	13	13							
07	11-98	N/A	I	6		6						
10	13-4	N/A	I	4			4					
11	13-8	N/A	I	8		8						
14	13-35	N/A	M	22	22							
13	13-98	N/A	I	10		10						
18	15-5	N/A	II	5			5					
23	15-15	N/A	I	15		14	1					
22	15-18	N/A	I	18		18						
19	15-19	N/A	I	19		19						
20	15-35	N/A	M	37	37							
21	15-97	N/A	I	12		8	4					
27	17-6	E-6	I	6				6				
28	17-8	E-8	II	8			8					
29	17-26	E-26	I	26		26						
30	17-35	E-35	M	55	55							
31	17-99	E-99	I	23		21	2					
37	19-11	F-11	II	11			11					
39	19-32	F-32	I	32		32						
40	19-35	F-35	M	66	66							
47	21-11	G-11	I	11				11				
48	21-16	G-16	II	16			16					
49	21-35	G-35	M	79	79							
51	21-39	G-39	I	39		37	2					
50	21-41	G-41	I	41		41						
57	23-21	H-21	II	21			21					
58	23-35	H-35	M	100	100							
59	23-53	H-53	I	53		53						
61	23-54	H-54	M	53	40		9	4				
60	23-55	H-55	I	55		55						
71	25-4	J-4	I	56		48	8					
66	25-19	J-19	I	19				19				
74	25-20	J-20	N	30		10	13		4		3	
72	25-24	J-24	I	24			12	12				
67	25-29	J-29	I	29			29					
68	25-35	J-35	M	128	128							
69	25-43	J-43	I	43		23	20					
73	25-46	J-46	I	46		40	4			2*		
70	25-61	J-61	I	61		61						

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix I Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

Step 6. Military/ Commercial
Lanyard Length Code

Table II

Lanyard Length (in.) ± .236	Lanyard Length (mm) ± 6.0	Lanyard Length Code For Part Number
4.016	102	A
4.528	115	B
5.000	127	C
5.512	140	D
6.024	153	E
6.535	166	F
7.008	178	G
7.520	191	H
7.992	203	I
8.503	216	J
9.016	229	K
9.528	242	L
10.000	254	M
10.512	267	N
11.024	280	P
11.535	293	R
12.008	305	S
12.520	318	T
13.031	331	U
14.016	356	V
15.000	381	W
16.024	407	X
17.008	432	Y
18.031	458	Z

Step 7. Military Alternate Keying Position
For alternate positions of connector (to prevent cross-mating) see alternate positioning on page 27. (N indicates normal)

Easy Steps to build a part number... Commercial

FAIL SAFE 88-5565() & 91-5565()

Ordering procedure for example part number 88-556529-EP is shown below:

1.	2.	3.	4.	5.	6.
Service Class	Connector Type Identification	Shell Size & Insert Arrg. Code	Required Field	Lanyard Length Code	Contact Type/Alternate Keying Position
88	5565	29	0	E	P

Step 1. Select a Service Class

88	Designates corrosion resistant olive drab cadmium plate over nickel, 500 hour extended salt spray, EMI -50dB @ 10 GHz specification min., 175°C
91	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10 GHz specification min., 48 hour salt spray, 200°C

These are standard finishes. Consult Amphenol Aerospace for other variations.

Step 2. Select a Connector Type Identification

5565	Designates MIL-DTL-38999, Series III Tri-Start Lanyard Release Plug
------	---

Step 3. Select a Commercial Shell Size & Insert Arrangement Code

MIL-DTL-38999, see insert availability chart on page 41.

Step 4. Required Field

0	The required field is always a 0
---	----------------------------------

Step 5. Select a Lanyard Length Code

See Table II (to the left) for lanyard length code number.

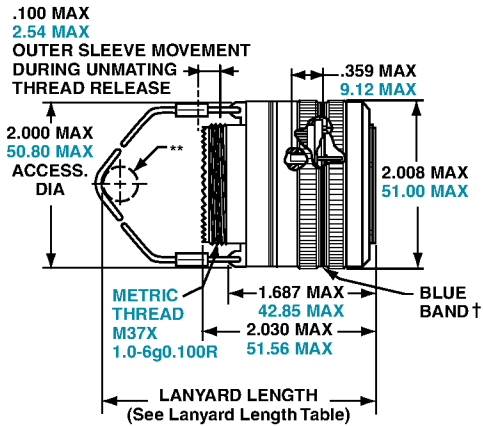
Step 6. Select a Contact Type/Alternate Keying Position

P designates pin, S designates socket for normal positioning of contacts. When an alternate position of the connector is required to prevent cross-mating, a different letter (other than P or S) is used. See alternate positioning on page 27, then convert to Amphenol Commercial coding by the following chart.

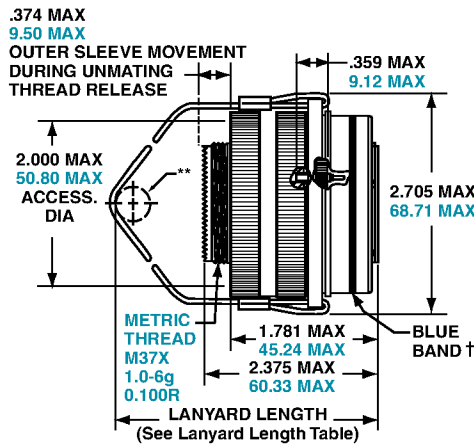
Pin Contacts		Socket Contacts	
MS Letter	Amphenol letter	MS Letter	Amphenol Letter
PN	P (normal)	SN	S (normal)
PA	G	SA	H
PB	I	SB	J
PC	K	SC	L
PD	M	SD	N
PE	R	SE	T

Lanyard Release Plug

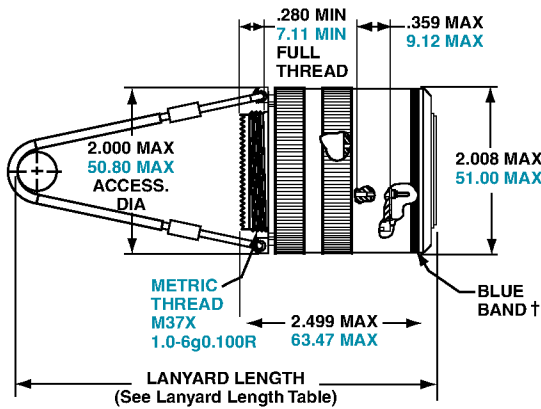
PIN CONTACTS ONLY,
SHELL SIZE 25 ONLY



TYPE 6



TYPE 2



TYPE 1
(LONGER SHELL)

† Blue band indicates rear release contact retention system
** Lanyard pulled taut against a .500 ± .13 dia. Mandrel
All dimensions for reference only

*Part number reference. To complete, see how to order page 41.

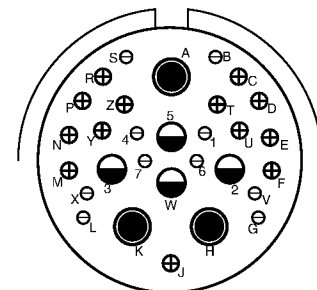
- D38999/31
- 88-555875/76 Type 6
- 91-555875/76 Type 6
- 88-558518/19 Type 2
- 91-558518/19 Type 2
- T3W-16B25-XXXX — Type 1

*To order by Commercial Part numbers consult Amphenol.

Tri-Start Lanyard Separation Forces

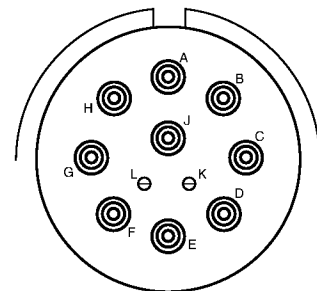
Shell Size	Straight Plug (lbs. max.)	15 Degree Pull (lbs. max.)
25	90	100

INSERT AVAILABILITY
FAIL SAFE D38999/31
FOR MIL-STD-1760



25-20

Primary Interface Signal Set



25-11

Auxiliary Power Signal Set



Pin Contact Data for MIL-STD-1760

Insert Arrangement	Service Rating	Total Contacts	Contact			
			20	16	12 (Coax)	8 (Twinax)
25-20	N	30	10	13	4	3

Contacts for 25-20 Pattern

Shell Size	Arrg. Number	Number of Contacts	Size Contacts	Service Rating	Contact Location	Standard Contacts	
						Pin	Socket
25	-20	3	8	Twinax	A, H, K	M39029/90-529	M39029/91-530
		4	12	Coax	2,3	M39029/28-211	M39029/75-416
					W, 5	M39029/102-558	M39029/103-559
		13	16	N	C, D, E, F, J, M, N, P, R, T, U, Y, Z	M39029/58-364	M39029/56-352
10	20	N	B, G, L, S, V, X, 1, 4, 6, 7	M39029/58-363	M39029/56-351		

Insert Arrangement	Service Rating	Total Contacts	Contact Size	
			20	10 (power)
25-11	N	11	2	9

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2
83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class 1

Back-Shell

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HOW TO ORDER - BY MILITARY PART NUMBER FAIL SAFE D38999/31

Ordering procedure for example part number D38999/31WE20PN1 is shown below:

Easy Steps to build a part number... Military

1.	2.	3.	4.	5.	6.	7.	8.
DOD Number Prefix	Spec Sheet Number	Service Class	Lanyard Length Code	Insert Arrangement	Contact Style	Alternate Keying Position	Type Number
D38999/	31	W	E	20	P	N	1

1. Select a DOD Number Prefix

	Designates
D38999/	MIL-DTL-38999, Series III Tri-Start Connectors

2. Specification Sheet Number

	Designates
31	Designates Lanyard Release Plug for MIL-STD-1760 with pin contacts

3. Select a Service Class

	Designates
F	Electroless nickel plated aluminum, optimum EMI shielding effectiveness –65dB @ 10 GHz specification min., 48 hour salt spray, 200°C
W	Corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI –50dB @ 10 GHz specification min., 175°C

4. Select a Lanyard Length Code

Lanyard Length (in.) ±.236	Lanyard Length (mm.) ± 6.0	Lanyard Length Code for Part Number
6.024	153.0	E
6.535	166.0	F
7.008	178.0	G
7.520	191.0	H
7.992	203.0	I
8.504	216.0	J
9.016	229.0	K
9.528	242.0	L

5. Select an Insert Arrangement

Only 11 or 20 are available contact arrangement numbers. See page 43.

6. Contact Style – P & A are Valid Options

	Designates
P	Replaces the “no designation” option in the PIN on revision C and earlier revision of the Mil-Spec.
A	Designates supplied less contacts.

7. Alternate Keying Position

	Designates
N	Is required for normal position.

8. Type Number

Type 1, 2 or 6. See drawings on page 43.

For accessories for lanyard release plugs see Accessories section.

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix I Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-
Shells

Options
Others

D38999 Type Hybrid Breakaway – Series III

Lower Profile Lanyard Release Plug, Crimp, Metal shells with Composite Operating Sleeve

New Hybrid Lanyard Breakaway Fail Safe connector with a composite thermoplastic outer operating sleeve for greater durability.

This new hybrid breakaway is the breakaway of choice for the Navy F-18 Program. Amphenol's hybrid lanyard design offers greater durability over D38999 aluminum and composite designs because of its ability to handle abuse taken after weapons release.

Other advantages include:

- Lower profile compared to full metal breakaway Fail Safe connectors
- Less weight

This Hybrid Breakaway meets the applicable requirements of MIL-DTL-38999/31 including random & sine vibration, ice resistance, fluid immersion and hydrolytic stability tests. (Test reports are available upon request).

Currently the hybrid breakaway is available in shell sizes 25 and 17. It uses standard inserts available for breakaway plugs sizes 25 and 17, and is also available with inserts 25-20 and 25-11 for MIL-STD-1760. Consult Amphenol Aerospace for ordering of the new hybrid breakaway connectors. These hybrid connectors will accommodate the standard backshells for breakaway connectors shown on Accessories section or the backshell section.



New Hybrid Lanyard Release Plugs (Metal inside shells and Composite, lower profile outer sleeves)

Condition/Test	Description	Reference
Durability	400 complete mating/unmating cycles	MIL-DTL-38999/31D
High Impact Shock	Nine hammer blows from 1,3 and 5 feet, three each in three axes on mounting panel.	MIL-S- 901D
Vibration	10 to 2000Hz in three perpendicular axes, 4 hours in each axis for a total of 12 hours with no fracturing or breaking of parts.	MIL-STD-202F, Method 204
Ice Resistance	Pull tested after conditioned with Ice water at -18C for 35 minutes.	MIL-DTL-38999/31D
Fail Safe Disengagement	Rotationally unmated 180° from full mate position and pull tested in both a straight direction and at 15°.	MIL-DTL-38999/31D
High Speed Pull Separation	100 cycles at 30 feet per second.	MIL-DTL-38999/31D

Stores Management Type II, Rail Launch

Plugs and Receptacles that meet MIL-STD-1760

Amphenol provides a Breakaway Rail Launch connector that is designed for use on aircraft that carry rail launch missiles such as AMRAAM.

These connectors are designed for blindmating of stores on rail launch applications. They consist of a buffer plug and a missile receptacle that meet the specifications of MIL-STD-1760 Stores Management.

Other features and benefits include:

- Designed to MIL-C-83538 specifications
- Bayonet and push pull coupling
- Use standard MIL-DTL-38999 crimp termination with power, coax and twinax contacts also available
- Buffer provides flame barrier
- Buffers are replaceable

Consult Amphenol Aerospace for more information and ordering.



Stores Management Type II Rail Launch Connectors

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1

- Backshells
- Options
- Others

Amphenol HD38999 High Density



Goes from 9 to 187 contacts!

The HD38999 family of connectors has 30% more contact density than the highest density Mil Spec 38999 connectors of its size. This series of connectors was designed to utilize mil-specified 38999 components with the exception of the contacts and inserts arrangement. Utilizing existing mil-qualified 39029 size 23 contacts and 38999 insert materials, these connectors are essentially a drop-in replacement for the standard 38999 connector.

This connector design benefits users in a couple of different ways. For those users who need to increase the amount of contacts in their application, the HD38999 series allows them to do so without increasing the size of their connector.

For users who are looking to decrease the overall size of their system, they can do so by using smaller shell sizes without decreasing the number of contacts.

Amphenol has qualified this series of connectors to the requirements of MIL -DTL-38999. Amphenol also manufactures this high density series in Filter, Hermetic and customized versions to fit our customers' needs. Please contact us if additional information is required.

HD38999 Connectors available styles:

- Aluminum
- Composite
- Stainless Steel
- Sealed (IP67)
- Filtered



For more information e-mail:
hd38999info@amphenol-aa0.com

TABLE OF CONTENTS

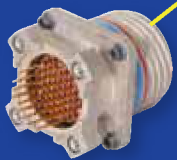
HD38999 Connectors

- How to Order 47
- Specifications, Insert Availability 48

HD38999 Shell Styles

- Wall Mounting Receptacle TVP00/CTVP00 49
- Wall Mounting Double Flange Receptacle (Printed Circuit Board Mount) TVP40/CTVP40 49
- Line Receptacle TV01/CTV01 50
- Box Mounting Receptacle TVP02/CTVP02. 50
- Jam Nut Receptacle TV07/CTV07 51
- Reduced Flange Jam Nut Receptacle TV97 51
- Jam Nut Double Flange Receptacle TVP47/CTVP47. 52
- Straight Plug with Integral Backshell TV96 52
- Straight Plug TV06/CTV06 53
- CLUTCH-LOK™ Plug TV26. 53
- Custom Designed HD38999 and Alignment Disks 54

**New
Featured**



MIL-DTL-38999 Series III Typical Markets:

- Military & Commercial Aviation
- Military Vehicles
- C4ISR



Easy Steps to build a part number... HD38999

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Styles	Service Class	Shell Size – Insert Arrangement	Contact Type	Alternate Positions	PCB Options
TV or PTV (Potted version)	06	RW	23-151	P	B	(P25)



Step 1. Select a Connector Type

	Designates	
P (prefix for Potted)	TV	Tri-Start Series Connector
	TVP	Back panel mounted receptacle
	MTV	CLUTCH-LOK high vibration plug connector (Note: remove dashes in how to order part number when ordering CLUTCH-LOK)
	CTV	Tri-Start Composite Series connector
	CTVP	Panel mounted composite receptacle

Step 2. Select a Shell Style

	Designates
00	Wall mount receptacle
40	Wall mount double flange receptacle
01	Line receptacle
02	Box mount receptacle - Consult Amphenol for availability
06	Straight plug
07	Jam nut receptacle
47	Jam nut double flange receptacle
26	Proprietary CLUTCH-LOK high vibration straight plug (service Class RK)
97	Reduced flange jam nut receptacle (not available in composite)
96	Straight plug with integral backshell (not available in composite)

Step 3. Select a Service Class

	Designates
RF	Electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10GHz specification min., 48 hour salt spray, 175°C
RW	Corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min., 175°C
RL	Corrosion resistant stainless steel, electro-deposited nickel, 48 hours salt spray, 175°C, non-firewall
RK	Corrosion resistant stainless steel, firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 175°C
DT	Durmalon plated, alternative to cadmium. Corrosion resistant, 500 hour extended salt spray EMI -50dB @ 10GHz specification min. without CR ⁶
DZ	Zinc-Nickel alternative to cadmium. Corrosion resistant, 500 hour salt spray, conductive, -65°C to +175°C



Step 4. Select a Shell Size – Insert Arrangement

Shell Sizes are MIL-DTL-38999, Series III, with the newer High Density insert arrangements chart on page 6-9 and illustrations on page 48.

Shell Size	Insert Arrangement
9-	9
11-	19
13-	32
15-	55
17-	73
19-	88
21-	121
23-	151
25-	187

Step 5. Select a Contact Type

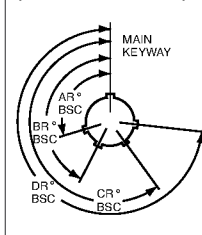
	Designates
P	Pin contacts
S	Socket contacts

Step 6. Select an Alternate Position

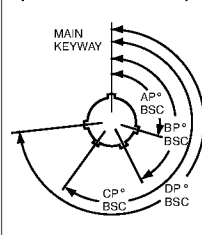
A, B, C, D, E or blank for normal.

Shell Size	Key & keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
17 and 19	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
21, 23, and 25	N	79	153	197	272
	A	80	142	196	293
	B	135	170	200	310
	C	49	169	200	244
	D	66	140	200	257
	N	62	145	180	280
	A	79	153	197	272
	B	80	142	196	293
	C	135	170	200	310
	D	49	169	200	244

RECEPTACLE (front face shown)



PLUG (front face shown)



A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.

Step 7. Select a PCB Contact Option

Pin Contacts	Contacts with Alignment Disc*	Socket Contacts	Socket Contacts with Alignment Disc**	PCB tail stickout +/- .040 inch
P1*	P1AD	S1	S1AD	.100" nominal
P15*	P15AD	S15	S15AD	.150" nominal
P2	P2AD	S2	S2AD	.200" nominal
P25*	P25AD	S25	S25AD	.250" nominal
P3*	P3AD	S3	S3AD	.300" nominal
P35	P35AD	S35	S35AD	.350" nominal

* Not available in TV40 wall mount double flange receptacle or TV47 jam nut double flange receptacle styles.

** See page 54 for more information on alignment discs for HD38999 connectors.

Note: Standard tail diameter is 0.019 ± 0.01

Stick out is measured from the end of the connector shell to end of the contact

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

Options Others



38999

Contacts & Tools

Contact Part Numbers:

Size 23 Sockets 10-597330-735 (M39029/17-172)
 Size 23 Pins 10-597331-735 (M39029/18-177)
 Sealing Plugs 10-405996-222 (MS27488-22-2)

Crimp Barrel Dia.:

(Inches) .034-.036

Crimp Barrel Depth:

(Inches) .151-.155

Tools:

Crimp Tool: Daniels M22520/2-01
 Positioner: Daniels M22520/2-16 Socket
 Daniels M22520/2-13 Pin

Insertion Tool: Daniels DAK225-22
 Removal Tool: Daniels DRK225-22
 Insertion/Removal Tool: M81969/16-04 (Plastic)

Note: Wire insulation diameter greater than 0.045 is too large for the extraction tool to work properly. Connector damage is possible.

Technical Data

HD38999 series was designed to meet and/or exceed the specifications of MIL-DTL-38999. The connector series has been tested to all the requirements of 38999 with the use of AS39029 size 23 contacts. Test reports are available upon request. The following is a summary of some of the performance requirements.

EMI Shielding Effectiveness:

Solid metal-to-metal coupling, EMI grounding fingers and conductive finishes have proven to be the ultimate in EMI/EMP shielding effectiveness. The charts on page 24 illustrated shielding effectiveness data which is typical in HD38999 connectors as well as MIL-DTL-38999 connectors.

Electrical:

22 AWG: 5.0 AMPS
 24 AWG: 3.0 AMPS
 26 AWG: 2.0 AMPS
 28 AWG: 1.5 AMPS
 Insulation Resistance: 5000 megohms min. @500 VDC 25C
 Dielectric Withstanding Voltage: 1000 VRMS@sea level

Environmental:

Operating Temperature: -65°C to +175°C

Salt Spray:
 Metallized: Electroless Nickel: 48 hours
 Anodic Coating, O. D. Cadmium, Durmalon, Zinc Nickel: 500 hours

Salt Spray Composite: Electroless Nickel: 1000 hours
 O. D. Cadmium, Durmalon, Zinc Nickel: 500 hours

Mechanical:

Metallic Shells: Material: Aluminum Alloy, Stainless Steel
 Protection: Electroless Nickel, O.D. Cadmium, Durmalon (Nickel PTFE), Zinc Nickel

Composite Shells: Material: Thermoplastic
 Protection: Electroless Nickel, O.D. Cadmium, Durmalon (Nickel PTFE), Zinc Nickel

Contacts: Material: Copper Alloy
 Protection: Gold over Nickel

Insert Retention to Shell: 100 psi in axial load

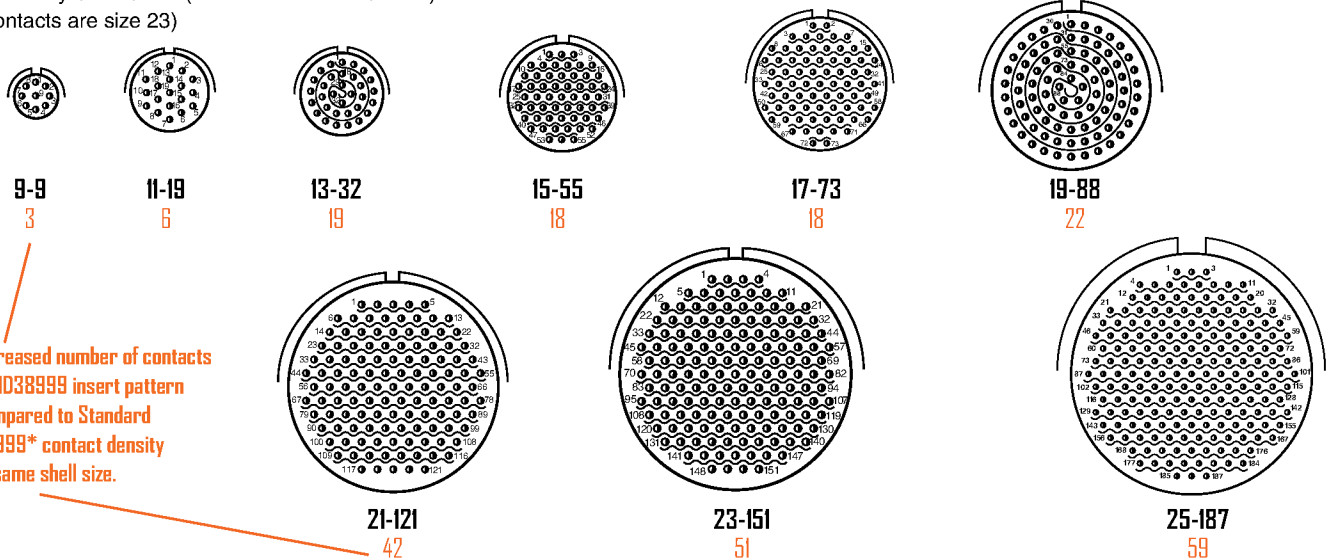
Durability: 500 full mating and unmating cycles

Vibration: 60G sine per MIL-DTL-38999L Para 4.5.23.2.1
 5G2 Random per EIA-364-28E, Test condition A
 1G2 Random per EIA-364-28E, Test condition I

Shock: Per EIA-364-27B, 300g

HD38999 Insert Availability

High Density Shell Sizes (Front of Pin Insert Shown)
 (all contacts are size 23)

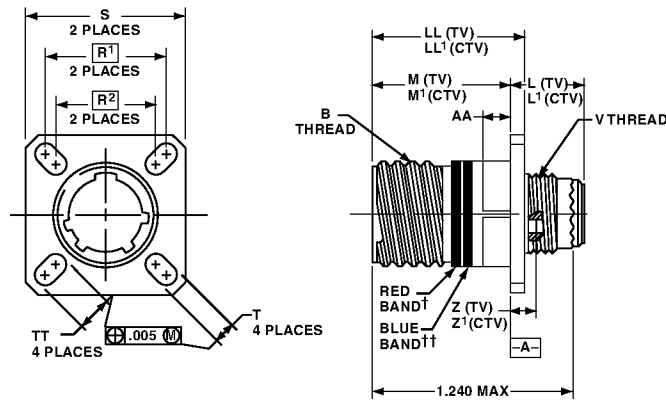


Increased number of contacts in HD38999 insert pattern compared to Standard 38999* contact density of same shell size.

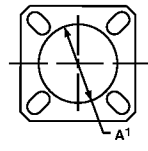
TVP00/CTVP00

Wall Mounting Receptacle

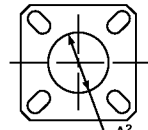
TVP00() - Crimp, Metal
CTVP00() - Crimp, Composite



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING



FRONT PANEL MOUNTING

See how to build a part number on pages 47

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L Max. (TV)	L' Max. (CTV)	M +.000 - .005 (TV)	M' +.000 - .005 (CTV)	R ¹	R ²	S Max.	T ±.008	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL1 ±.005 (CTV)	TT ±.008
9	A	.6250	.469	.520	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.469	.520	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.469	.520	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.469	.520	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.469	.520	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.469	.520	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.500	.552	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.500	.552	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.500	.552	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

All dimensions for reference only

HD38999 High Density Connectors

TVP40/CTVP40

Wall Mounting Double Flange Receptacle (Printed Circuit Board Mount)

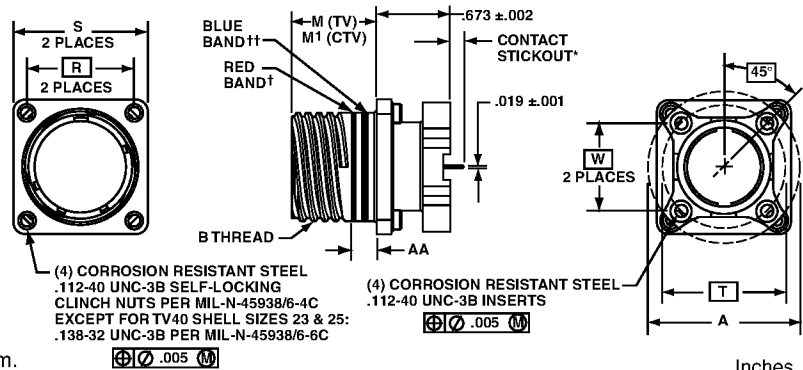
TVP40() - Crimp, Metal
CTVP40() - Crimp, Composite

See how to build a part number on pages 47

* Contact stickout: see Step 7 of how to order on page 47.

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.



Inches

Shell Size	MS Shell Size Code	A Dia. ±.005 (TV)	A Dia. ±.005 (CTV)	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M +.000 - .005 (TV)	M' ±.003 (CTV)	R (Panel Mount) (CTV)	R (Panel Mount) (TV)	S Max. (TV)	S Max. (CTV)	AA Max. Panel Thickness	PCB Mounting Dimensions	
												T Dia. (TV) TP	W (CTV) TP
9	A	1.016	1.016	.6250	.820	.770	.719	NA	1.094	.949	.234	.752	.532
11	B	1.062	1.148	.7500	.820	.770	.812	.766	1.187	1.042	.234	.850	.601
13	C	1.250	1.250	.8750	.820	.770	.906	.859	1.281	1.136	.234	.994	.703
15	D	1.375	1.375	1.0000	.820	.770	.969	.938	1.344	1.230	.234	1.119	.791
17	E	1.500	1.500	1.1875	.820	.770	1.062	1.016	1.437	1.323	.234	1.237	.875
19	F	1.625	1.625	1.2500	.820	.770	1.156	1.110	1.531	1.449	.234	1.379	.975
21	G	1.750	1.750	1.3750	.820	.738	1.250	1.206	1.625	1.573	.204	1.489	1.053
23	H	1.875	1.875	1.5000	.820	.738	1.375	1.312	1.750	1.699	.204	1.619	1.195
25	J	2.000	2.000	1.6250	.820	.738	1.500	1.438	1.875	1.823	.204	1.744	1.233

All dimensions for reference only

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

38999

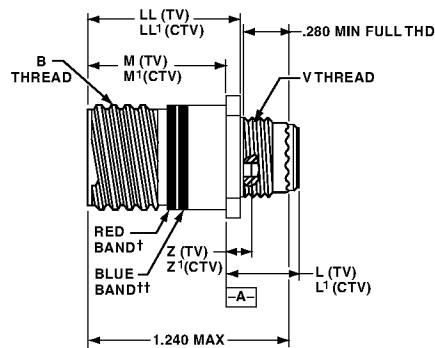
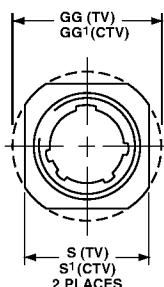
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

TV01() - Crimp, Metal
CTV01() - Crimp, Composite

See how to build a part number on pages 47

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.



Inches

Shell Size	MS Shell Size Code	B Thread 0.1P-0.3L-TS-2A (Plated)	M +.000 -0.005 (TV)	M' +.000 -0.005 (CTV)	L Max. (TV)	L' Max. (CTV)	S ±.010 (TV)	S' ±.010 (CTV)	Z Max (TV)	Z' Max (CTV)	GG ±.010 (TV)	GG' ±.010 (CTV)	LL +.006 -0.000 (TV)	LL' ±.005 (CTV)
9	A	.6250	.820	.773	.469	.520	.675	.635	.153	.198	.812	.699	.905	.908
11	B	.7500	.820	.773	.469	.520	.800	.765	.153	.198	.905	.875	.905	.908
13	C	.8750	.820	.773	.469	.520	.925	.885	.153	.198	1.093	1.007	.905	.908
15	D	1.0000	.820	.773	.469	.520	1.050	1.100	.153	.198	1.219	1.140	.905	.908
17	E	1.1875	.820	.773	.469	.520	1.238	1.197	.153	.198	1.375	1.229	.905	.908
19	F	1.2500	.820	.773	.469	.520	1.300	1.260	.153	.198	1.469	1.380	.905	.908
21	G	1.3750	.790	.741	.500	.552	1.425	1.385	.183	.228	1.625	1.493	.905	.904
23	H	1.5000	.790	.741	.500	.552	1.550	1.510	.183	.228	1.750	1.626	.905	.904
25	J	1.6250	.790	.741	.500	.552	1.675	1.635	.183	.228	1.875	1.777	.905	.904

All dimensions for reference only

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

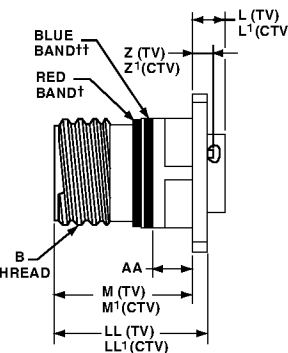
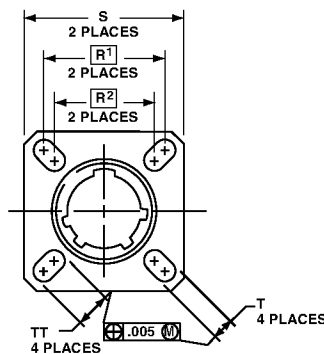
HD38999 High Density Connectors

TVP02/CTVP02

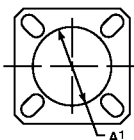
Box Mounting Receptacle

** See availability note below

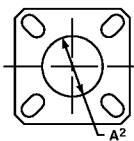
TVP02() - Crimp, Metal
CTVP02() - Crimp, Composite



PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING



FRONT PANEL MOUNTING

Inches

See how to build a part number on pages 47

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.

**Consult Amphenol Aerospace for availability for box mount receptacles.

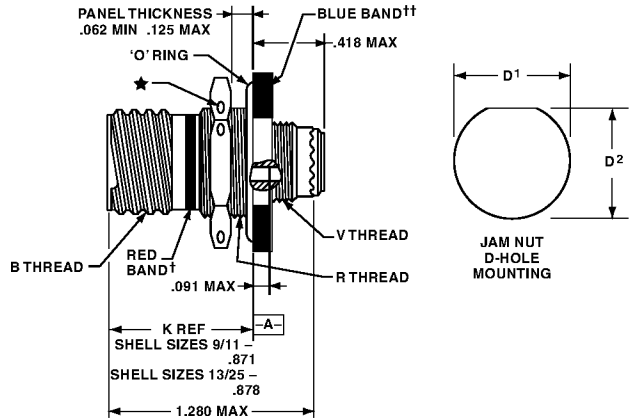
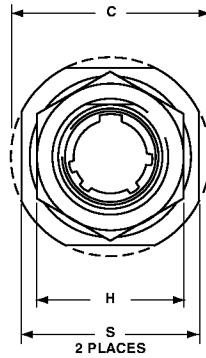
Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L Max. (TV)	L' Max. (CTV)	M +.000 -0.005 (TV)	M' +.000 -0.005 (CTV)	R1	R2	S Max. (TV)	T ±.008	Z Max. (TV)	Z' Max. (CTV)	A1 Back Panel Mount	A2 Front Panel Mount	AA Max. Panel Thickness	LL +.006 -0.000 (TV)	LL1 ±.005 (CTV)	TT ±.008
9	A	.6250	.205	.250	.820	.773	.719	.594	.948	.128	.153	.198	.650	.510	.234	.905	.908	.216
11	B	.7500	.205	.250	.820	.773	.812	.719	1.043	.128	.153	.198	.800	.620	.234	.905	.908	.194
13	C	.8750	.205	.250	.820	.773	.906	.812	1.137	.128	.153	.198	.910	.740	.234	.905	.908	.194
15	D	1.0000	.205	.250	.820	.773	.969	.906	1.232	.128	.153	.198	1.040	.900	.234	.905	.908	.173
17	E	1.1875	.205	.250	.820	.773	1.062	.969	1.323	.128	.153	.198	1.210	1.010	.234	.905	.908	.194
19	F	1.2500	.205	.250	.820	.773	1.156	1.062	1.449	.128	.153	.198	1.280	1.130	.234	.905	.908	.194
21	G	1.3750	.235	.280	.790	.741	1.250	1.156	1.575	.128	.183	.228	1.410	1.250	.204	.905	.904	.194
23	H	1.5000	.235	.280	.790	.741	1.375	1.250	1.701	.154	.183	.228	1.530	1.360	.204	.905	.904	.242
25	J	1.6250	.235	.280	.790	.741	1.500	1.375	1.823	.154	.183	.228	1.660	1.470	.204	.905	.904	.242

All dimensions for reference only

TV07/CTV07

Jam Nut Receptacle

TV07() - Crimp, Metal
 CTV07() - Crimp, Composite



See how to build a part number on pages 47

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.

★ .059 dia. min., 3 lockwire holes. Formed lockwire hole design (6 holes) is optional

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max.	D ¹ +.010 -.000	D ² +.000 -.010	H Hex +.017 -.016	S ±.010	V Thread Metric	R Thread (Plated) 9-7543
9	A	.6250	1.199	.693	.657	.875	1.062	M12X1-6g	M17X1-6g
11	B	.7500	1.386	.825	.770	1.000	1.250	M15X1-6g	M20X1-6g
13	C	.8750	1.511	1.010	.955	1.188	1.375	M18X1-6g	M25X1-6g
15	D	1.0000	1.636	1.135	1.085	1.312	1.500	M22X1-6g	M28X1-6g
17	E	1.1875	1.761	1.260	1.210	1.438	1.625	M25X1-6g	M32X1-6g
19	F	1.2500	1.949	1.385	1.335	1.562	1.812	M28X1-6g	M35X1-6g
21	G	1.3750	2.073	1.510	1.460	1.688	1.938	M31X1-6g	M38X1-6g
23	H	1.5000	2.199	1.635	1.585	1.812	2.062	M34X1-6g	M41X1-6g
25	J	1.6250	2.323	1.760	1.710	2.000	2.188	M37X1-6g	M44X1-6g

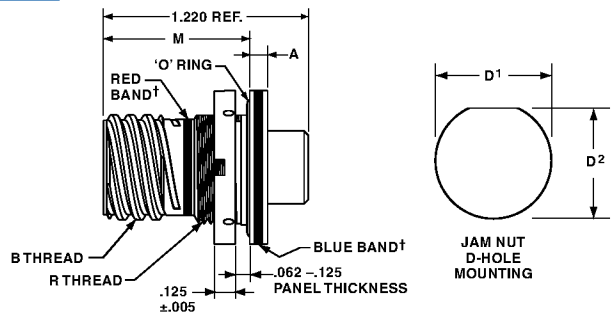
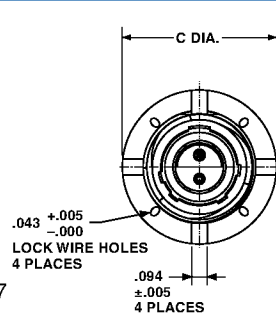
All dimensions for reference only

HD38999 High Density Connectors

TV97

Reduced Flange Jam Nut Receptacle

TV97() - Crimp, Metal



See how to build a part number on pages 47

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	A +.010 -.005	C Dia. Max.	D ¹ +.010 -.000	D ² +.000 -.010	M	R Thread (Plated) 9-7543
9	A	.6250	.104	.915	.693	.657	.871	M17X1-6g
11	B	.7500	.104	1.042	.825	.770	.871	M20X1-6g
13	C	.8750	.104	1.240	1.010	.955	.878	M25X1-6g
15	D	1.0000	.104	1.357	1.135	1.085	.878	M28X1-6g
17	E	1.1875	.104	1.630	1.260	1.210	.878	M32X1-6g
19	F	1.2500	.135	1.816	1.385	1.335	.878	M35X1-6g
21	G	1.3750	.135	1.942	1.510	1.460	.878	M38X1-6g
23	H	1.5000	.135	2.067	1.635	1.585	.878	M41X1-6g
25	J	1.6250	.135	2.190	1.760	1.710	.878	M44X1-6g

All dimensions for reference only

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

38999

- III
- HD**
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

TV47() - Crimp, Metal
CTV47() - Crimp, Composite

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

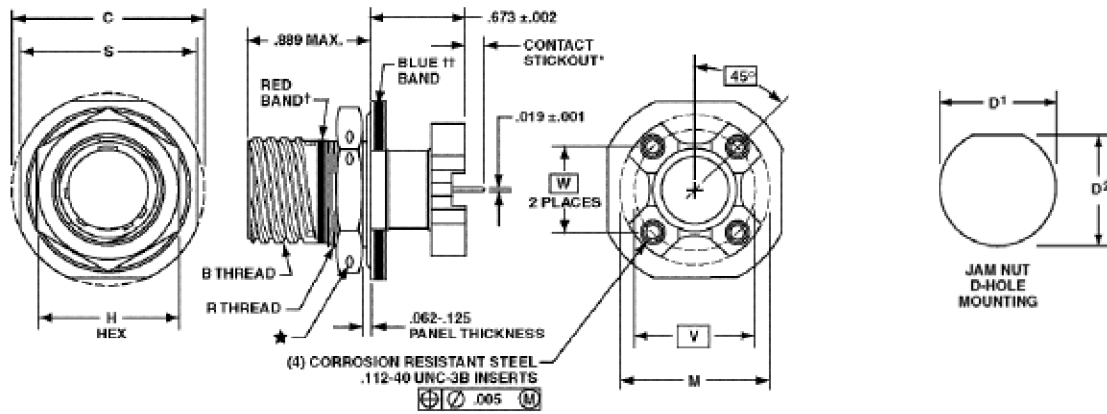
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



See how to build a part number on pages 47

* Contact stickout dimension: see Step 7 of how to order on page 47.

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system.

★ .059 dia. min., 3 lockwire holes. Formed lockwire hole design (6 holes) is optional

Inches

Shell Size	MS Shell Size Code	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C ±.005 (Jam Nut Flange Dia.)	D ¹ +.010 -.000	D ² +.000 -.010	H Hex +.017 -.016	M Dia. ±.005	R Thread Metric (Plated)	S +.011 -.010	PCB Mounting Dimensions	
										V Dia. (TV) TP	W (CTV) TP
9	A	.6250	1.188	.700	.670	.875	1.016	M17X1-6g0.100R	1.062	.753	.532
11	B	.7500	1.375	.825	.770	1.000	1.148	M20X1-6g0.100R	1.250	.850	.601
13	C	.8750	1.500	1.010	.955	1.188	1.250	M25X1-6g0.100R	1.375	.994	.703
15	D	1.0000	1.625	1.135	1.085	1.312	1.375	M28X1-6g0.100R	1.500	1.119	.791
17	E	1.1875	1.750	1.260	1.210	1.438	1.500	M32X1-6g0.100R	1.625	1.237	.875
19	F	1.2500	1.937	1.385	1.335	1.562	1.625	M35X1-6g0.100R	1.812	1.379	.975
21	G	1.3750	2.062	1.510	1.460	1.688	1.750	M38X1-6g0.100R	1.937	1.489	1.053
23	H	1.5000	2.188	1.635	1.585	1.812	1.875	M41X1-6g0.100R	2.062	1.644	1.145
25	J	1.6250	2.312	1.760	1.710	2.000	2.000	M44X1-6g0.100R	2.188	1.744	1.233

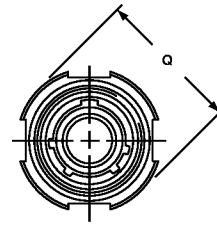
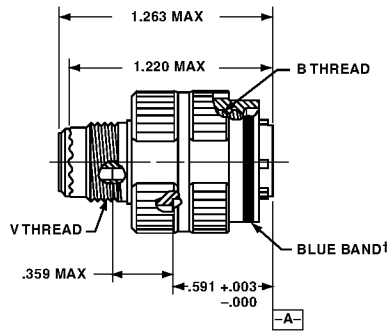
All dimensions for reference only

TV06/CTV06

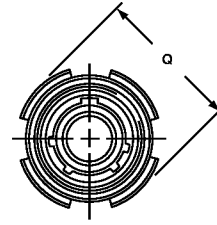
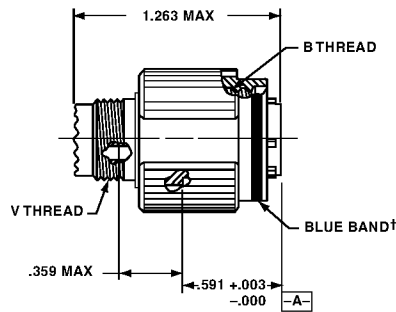
Straight Plug

TV06() - Crimp, Metal
 CTV06() - Crimp, Composite

METAL



COMPOSITE



HD38999 High Density Connectors

TV96

Straight Plug with Integral Backshell

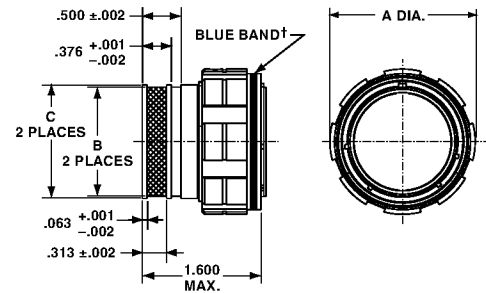
TV96() (TV Type) - Crimp, Metal

This MIL-DTL-38999 Series III style connector features an integral backshell design that eliminates the need for costly backshell accessories. The backshell feature is incorporated into the rear of the connector shell, allowing the user to attach the shield of their cable directly to the connector. This provides superior EMI shielding and ease for overmold applications. The straight plug with integral backshell is available in aluminum shells with OD Cad or Electroless Nickel plating.



See how to build a part number on pages 47

† Blue band indicates rear release contact retention system.



Inches

Shell Size	MS Shell Size Code	A Max.	B +.005 -0.000	C +.003 -0.002
9	A	.859	.416	.472
11	B	.969	.524	.580
13	C	1.141	.652	.708
15	D	1.266	.810	.866
17	E	1.391	.928	.984
19	F	1.500	1.046	1.102
21	G	1.625	1.164	1.220
23	H	1.750	1.282	1.338
25	J	1.875	1.400	1.456

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

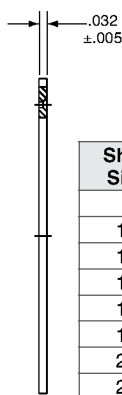
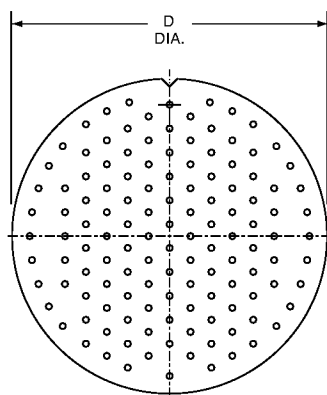
HD38999

High Density

New Custom Designed HD38999 Connectors - Provide More Interconnect Solutions:

Alignment Disks

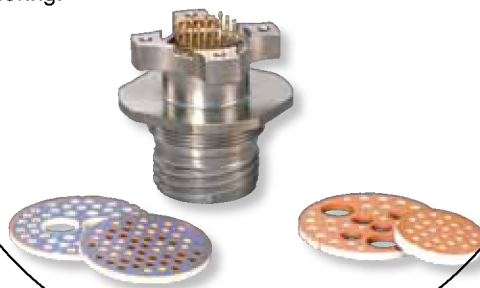
Alignment disks keep contacts aligned for easier insertion into circuit boards. These are typically ordered with the connector - see step 7 of How to Order on page 47.



Shell Size	D Dia. ±.010
9	.234
11	.350
13	.500
15	.725
17	.750
19	.850
21	.953
23	1.147
25	1.250

Filtered HD38999 Connectors - for EMI/EMP Protection

High density patterns are available in filter 38999 connectors - consult Amphenol Aerospace for ordering.



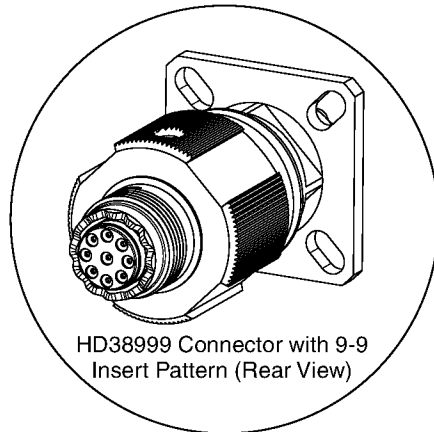
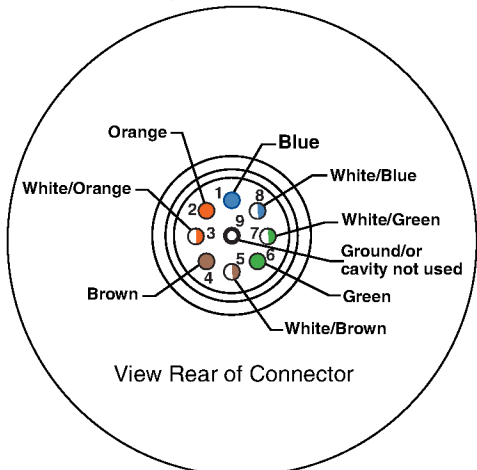
HD38999 for Gigabit Ethernet Applications

The HD38999 is available for high speed (Gigabit Ethernet) data transmission in the size 9-9 insert pattern.

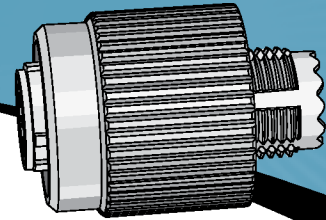
Data transmission performance of this connector insert:

- 10 Base T, 100 Base TX, and 1000 Base T networks using Cat 5e per TIA/EIA568B and Class D per ISO/IEC 11801.
(Test report available - consult Amphenol Aerospace for more information)

Signal-Ground Pin Configuration Wiring Recommendations



HD38999 Connector with 9-9 Insert Pattern (Rear View)



Dualok Revolution

- ✓ **Severe Environments:**
 - *Shock and vibration*
- ✓ **Rock Solid Coupling:**
 - *Ensures metal-to-metal bottoming*
- ✓ **Light Weight:**
 - *Hybrid composite/metal design*
- ✓ **D38999 Compatible:**
 - *Mates with standard D38999 receptacles*
 - *Standard D38999 insert arrangements*

TABLE OF CONTENTS

Dualok	
• Weight Chart . . . . .	.56
• How to Order	57-59
• Straight Plug . . . . .	.60
• Box Mounting Receptacle TVP02/CTVP02. . . . .	.60

38999

- III
- HD
- Dualok**
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

The Dualok represents the latest in high performance connector designs from Amphenol. Featuring a newly developed locking mechanism, the Dualok plug ensures rock-solid coupling and metal-to-metal bottoming in the most severe vibration environments.

Dualok features and benefits include:

- Mates with standard D38999 receptacles and utilizes standard D38999 inserts.
- Designed to withstand and stay mated under vibration levels that exceed MIL-DTL-38999 levels
- Dualok stainless steel provides a weight savings of up to 42% compared to standard D38999 stainless steel designs
- Brand new size 7 plugs and receptacles
- Stainless steel, aluminum, composite, or aluminum bronze materials of construction
- Dualok aluminum provides ~ 10% weight reduction over D38999 Aluminum
- Available in sizes 7 – 25
- Offering of new 7-2, 7-3 & 7-4 insert patterns
- Coupling mechanism that does not “settle” under vibration levels exceeding MIL-DTL-38999
- Metal-to-metal bottoming for maximum EMI shielding under extreme vibration



New High Vibration Dualok Connector



HIGH SPEED

- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

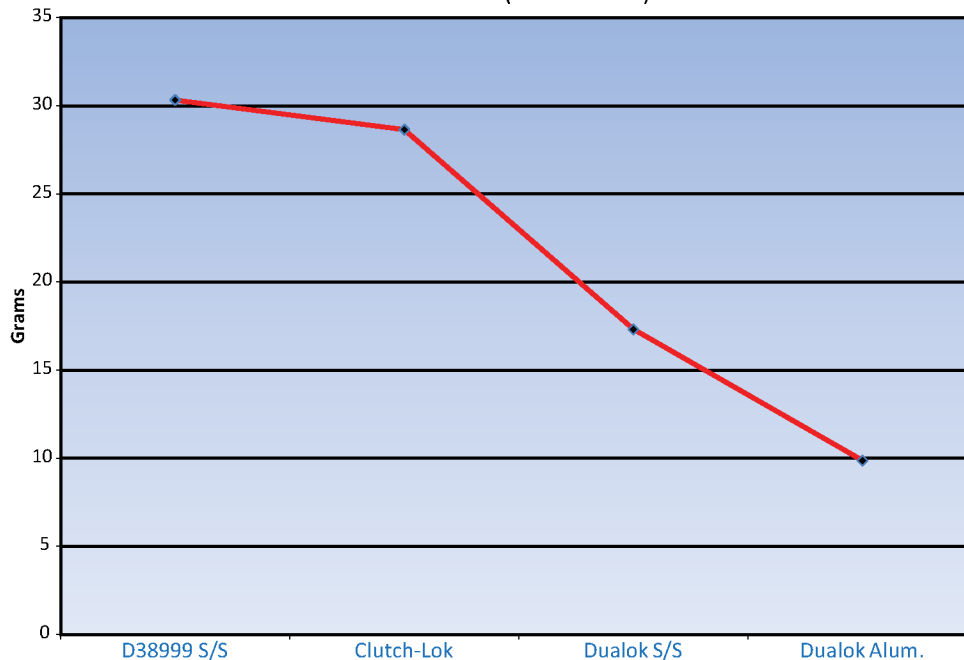
5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

Weight Comparison
Size #9 (Less Inserts)



Patent Pending

Easy Steps to build a part number... **Dualok**

1. Commercial	2. Shell Style	3. Service Class	4. Shell Size- Insert Arrangement	5. Contact Type	6. Alternate Keying Position	7. Special Variations
TVS	56	RF	9-35	P	B	(XXX)

Step 1. Select a Connector Type

What Shell Material & Temperature rating do you need?

Aluminum 175°C	
TV	Tri-Start 175°C
TVP	Panel mounted receptacle 175°C

Aluminum, Aluminum Bronze & Steel 200°C	
TVS	200°C rated
TVPS	Panel mounted, 200°C rated receptacle

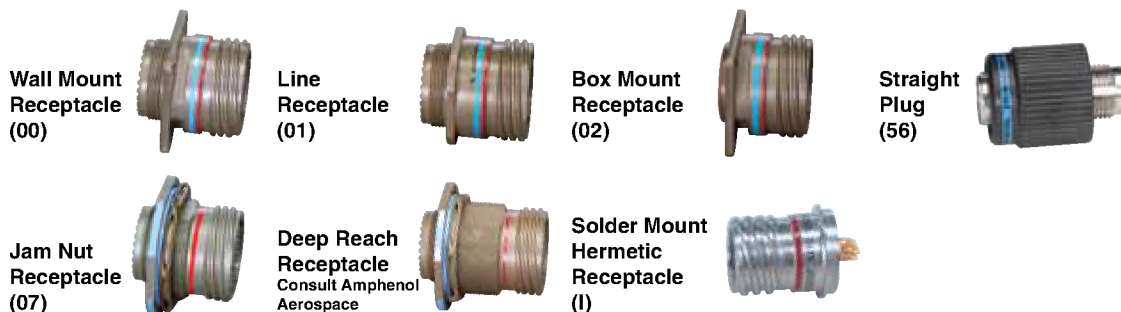
Composite 175°C	
CTV	Composite 175°C
CTVP	Panel mounted composite receptacle 175°C

Composite 200°C	
CTVS	200°C rated, composite
CTVPS	Composite Panel mounted, 200° rated receptacle

Step 2. Select a Shell Style

COMMERCIAL				Designates
TVP, TVPS, CTVP, CTVPS	TV, CTV	TVS	CTVS	
00				Wall Mount Receptacle
02				Box Mount Receptacle*
	01	01	01	Line Receptacle*
	07	07	07	Jam Nut Receptacle*
		I		Solder Mount Receptacle Hermetic*
		HI		Weld Mounted Receptacle, (Hermetic) Only*
	56	56	56	Straight plug with Dualok

*Currently available in sizes 9-25



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts
Connectors
Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

Options Others

Patent Pending

38999

Step 3. Select a Service Class

1. Connector Type	2. Shell Style	3. Service Class	4. Shell Size-Insert Arrg.	5. Contact Type	6. Alternate Position	7. Special Variations
		RX				

TV	TVP	CTV	CTVP	CTVS, CTVPS	TVS	TVPS	Finish	Description
					RB	RB	Aluminum Bronze	TBD Corrosion resistant aluminum bronze for marine & other high corrosion applications, 200°C.
							Anodic Coating	■ Non-conductive, anodic coated aluminum, 500 hour salt spray, 200°C.
RX	RX				RX	RX		TBD Consult Amphenol Aerospace for details, options and availability of non-cadmium or ROHS Compliant Finishes.
				RF-Composite	RF-Metal	RF-Metal	Electroless Nickel	■ Electroless nickel plated aluminum (composite) optimum EMI shielding effectiveness -65dB @ 10GHz specification min., 48 hour salt spray, 200°C (Composite-2000 hours dynamic salt spray).
				RGF-Composite	RGF-Metal	RGF-Metal	Electroless Nickel	■ Electroless nickel plated ground plane aluminum (composite), 200°C
							Electroless Nickel	■ Space grade, electroless nickel, 48 hour salt spray, 200°C
RGW-Metal	RGW-Metal	RGW-Composite	RGW-Composite				Olive Drab Cadmium	Olive drab cadmium plated ground plane aluminum (composite), 175°C
					RK**	RK**	Passivated Stainless Steel	■ Corrosion resistant stainless steel, firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 200°C
					RKN	RKN	Passivated Stainless Steel	■ Corrosion resistant stainless steel, non-firewall capability, plus 500 hour salt spray resistance, EMI -45 dB @ 10 GHz specification min., 200°C
					RL	RL	Stainless Steel w/ Nickel Plate	■ Corrosion resistant steel, electro deposited nickel, 500 hour salt spray, 200°C, non firewall, EMI shielding -65dB @ 10GHz specification min.
RW-Metal	RW-Metal	RW-Composite	RW-Composite				Olive Drab Cadmium	Corrosion resistant olive drab cadmium plate aluminum (composite), 500 hour salt spray, EMI Shielding -50 dB @ 10 GHz specification min., 175°C (Composite - 2000 hours dynamic salt spray).
					Y	Y	Stainless Steel	■ Hermetic seal, passivated stainless steel, 200°C
					RS*	RS*	Stainless Steel w/ Nickel Plate	■ (Non-hermetic connectors), Nickel plated, corrosion resistant steel, firewall capability, 500 hour salt spray, 200°, EMI shielding -65dB @ 10GHz specification min.
					YN	YN	Stainless Steel w/ Nickel Plate	■ (Hermetic connectors), Nickel plated corrosion resistant steel, 200°C
DT	DT						Durmalon plated	■ Nickel-PTFE alternative to Cadmium. Corrosion resistant, 500 hour salt spray, EMI -50dB at 10GHz specification min., 175°C
DZ	DZ						Zinc-Nickel Plated	TBD Zinc-Nickel Alternative to Cadmium, corrosion resistant, 500 hour salt spray, Conductive, -65°C to +175°C, EMI Shielding -50 dB @ 10 GHz specification min.

* Consult Amphenol Aerospace for availability. **Consult Amphenol Aerospace for availability of Class RK. Coaxial arrangements are not available in Class RK.

Step 4. Select a Shell Size & Insert Arrangement see pg. 6-9

1. Connector Type	2. Shell Style	3. Service Class	4. Shell Size-Insert Arrg.	5. Contact Type	6. Alternate Position	7. Special Variations
			23-2			

Double Start Threads		Triple Start Threads										Mil Shell Size
		A	B	C	D	E	F	G	H	J		
7	7H	9	11	13	15	17	19	21	23	25	Amphenol Shell size	

Shell Size & Insert Arrangement are on pages 6-9. First number represents Shell Size, second number is the Insert Arrangement.
* Size 7 and 7H are Double Start Threads only

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts
H	1500 Cycle Pin Contacts
J	1500 Cycle Socket Contacts
A	Same as "P" except supplied less pin Contacts
B	Same as "S" except supplied less socket contacts (A & B designate nonstandard contact applications)
X	Eyelet contacts, hermetics only

Step 6. Select an Alternate Keying Position

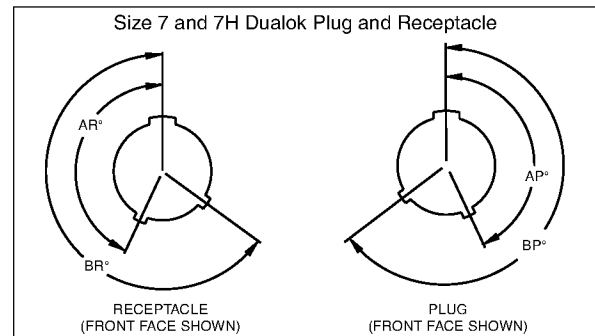
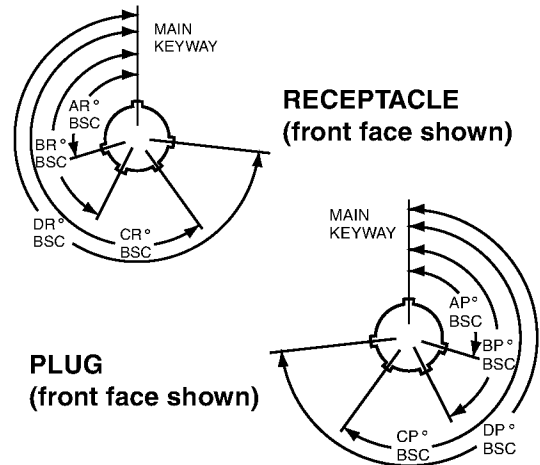
Key/Keyway Position

Shell Size	Key & Keyway Arrangement Identification Letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
7, 7H	N*	120	240		
	A	132	248		
	B	80	230	NA	NA
	C	140	275		
	D	155	234		
9	N*	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	N*	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
17 and 19	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
21, 23, and 25	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	N*	79	153	197	272
	A				
	B				
	C				
	D				

* An "N" designation is used on D38999 military part number but not on the commercial versions

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
				P	B	

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Master key stays fixed, minor keys rotate. Inserts are not rotated in conjunction with the master key/keyway.



Step 7. Special Variations

Consult Amphenol Aerospace for variations.

Patent Pending

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
						(xxx)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

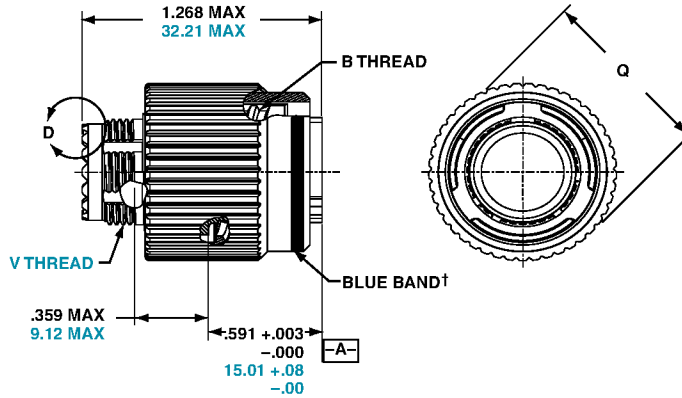
22992
Class 1

Back-Shell

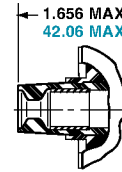
Options
Others

38999

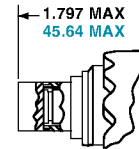
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-



VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



Shell Size	B Thread 0.0714P-.1428L-DS-2B (Plated)	Q Dia. Max.	Q Dia. Max. Metric	V Thread Metric.
7	.5000	.745	18.9	M10X-3g6g
	B Thread 0.1-0.3L-TS-2B (Plated)			
9	.6250	.863	21.8	M12X1-6g
11	.7500	.989	25.0	M15X-16g
13	.8750	1.159	29.4	M18X1-6g
15	1.0000	1.275	32.5	M22X1-6g
17	1.1875	1.405	35.7	M25X1-6g
19	1.2500	1.515	38.5	M28X1-6g
21	1.3750	1.645	41.7	M31X1-6g
23	1.5000	1.675	44.9	M34X1-6g
25	1.6250	1.885	48.0	M37X1-6g

All dimensions for reference only

□ Designates true position dimensioning

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

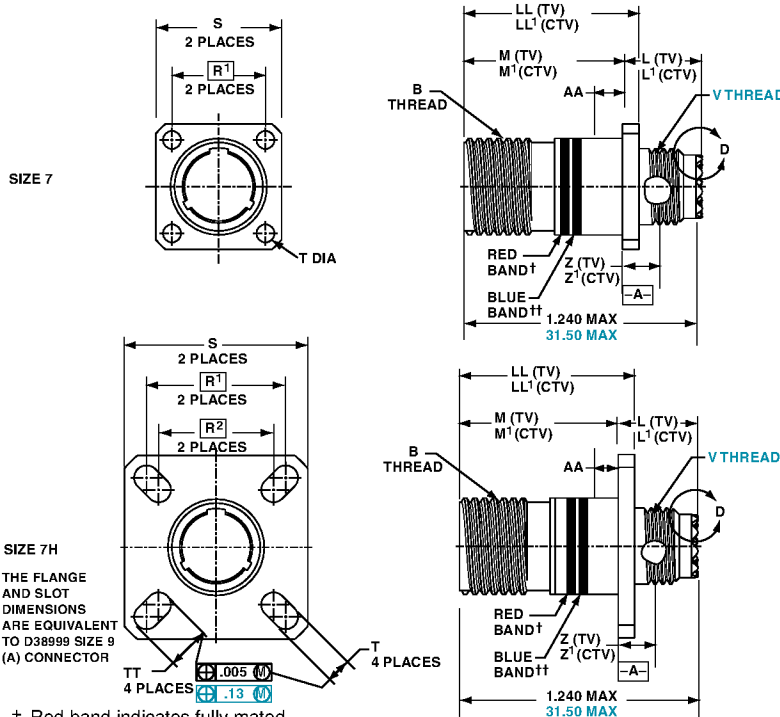
26500 Pyle

5015 Crimp Rear Release Matrix

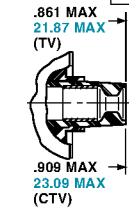
22992 Class I

Back-Shells

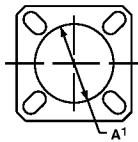
Options Others



VIEW D
FOR SIZE 8 COAXIAL ONLY,
RELATIVE TO -A-

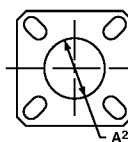
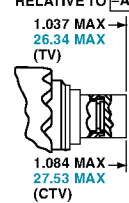


PANEL HOLE DIMENSIONS



BACK PANEL MOUNTING

VIEW D
FOR SIZE 8 TWINAX ONLY,
RELATIVE TO -A-



FRONT PANEL MOUNTING

† Red band indicates fully mated

†† Blue band indicates rear release contact retention system

Consult Amphenol Aerospace for availability of 7 & 7H composite receptacles.

Patent Pending

Shell Size	B Thread .0714P-.1428L-DS-2A (Plated)	L Max. (TV)	L' Max. (CTV)	M +.000 -0.005 (TV)	M' +.000 -0.005 (CTV)	R ¹	R ²	S Max.	T .093 ±.005 .129 ±.008	Z Max. (TV)	Z' Max. (CTV)	A ¹ Back Panel Mount	A ² Front Panel Mount	AA Max. Panel Thickness	LL +.006 -0.000 (TV)	LL' ±.005 (CTV)	TT ±.008	V Thread Metric
7	.5000	.469	.514	.820	.779	.483	NA	.660		.153	.198	.525	.432	.234	.905	.908	N/A	M10X-3g6g
7H	.5000	.469	.514	.820	.779	.812	.594	.948		.153	.198	.525	.432	.234	.905	.908	.216	M10X-3g6g

MIL-DTL-38999, Series II JT

MIL-DTL-38999, Series I LJT



**MIL-DTL-38999
Series I LJT**

Components

Shell components are impact extruded or machined bar stock aluminum. Standard plating on shell components is cadmium over nickel. Many finishes are optional (see "Specifications" page 19). Hermetic seal receptacles are available in carbon steel or stainless steel shells. Dependable 5 key/keyway polarization with bayonet lock coupling is incorporated to aid and assure positive mating.

Insert material is a rigid dielectric with excellent electrical characteristics, providing durable protection for molded-in solder type contacts. Contrasting letter or number designations are used on insert faces.

A fluorinated silicone interfacial seal wafer is featured on the mating face of "crimp type pin" inserts. This assures complete electrical isolation of pins when connector halves are mated. In addition, a main joint gasket is installed in the receptacle for moisture sealing between connector halves. Both features are also available for hermetic receptacles.

Contacts

Maximum design flexibility is built into the JT/LJT Series, with a minimum of 2 to a maximum of 128 circuits per connector in a wide variety of contact arrangements. Contacts are available in sizes 8, 10, 12, 16, 20, 22, 22D and 22M with standard 50 micro inch minimum gold plating (100 micro inches optional). All socket contacts are probe proof. Crimp type rear removable contacts are featured in JT-R and LJT-R connectors. Solder termination contacts are also available, as well as PCB, wire wrap, thermocouple, fiber optic, coaxial, triaxial and twinax contact options.

Optional Features

High temperature capability of 392°F is available only in JTS or LJTS crimp type connectors. High temperature versions feature gold plated contacts, high temperature shell plating, stainless steel coupling nut spring, and epoxy inserts/fluorinated silicone grommet combination. Standard temperature capability for both solder and crimp is 302°F.

The JTN or LJTN type connectors are available for N₂O₄ resistance provided they are mated, and un-grommated rear faces are suitably protected.

For complete listing and definition of connector types, shell styles and service classes, see How to Order, pages 62 & 63. For information on Fail-Safe Lanyard Release style plugs, see pages 94-96.

Where proof of high reliability and lot control is required, MS approved equivalents to most proprietary JT and LJT connectors are available.

* MIL-DTL-38999 Series I supersedes MIL-C-38999 Series I.
MIL-DTL-38999 Series II supersedes MIL-C-38999 Series II.

Features & Benefits

Amphenol® LJT and JT Series subminiature cylindrical connectors are qualified to MIL-DTL-38999*, Series I and II respectively. These connectors were developed to meet the needs of the aerospace industry, and provided the impetus for development of the MIL-C-38999 specifications, which has been superseded by MIL-DTL-38999. Meeting or exceeding MIL-DTL-38999 requirements, Amphenol® JT/LJT connectors feature:

- **Lightweight, Space Saving Design**
- **Contact Protection** - 100% scoop-proof LJT design prevents bent pins and short circuits during mating
- **Quick Positive Coupling** - 3 point bayonet lock system
- **Mismating Eliminated** - with 5 key/keyway design
- **Error Proof Alternate Positioning** - insured by different key/keyway locations
- **EMI Shielding** - grounding fingers standard in LJT Series; optional in JT Series
- **Nine Shell Sizes and a Variety of Shell Styles**
- **Contact Options** - size 8, 10, 12, 16, 20, 22M and 22D Crimp, Solder, PCB, Wire wrap, Coax, Twinax, Triax, Thermocouple, Fiber Optic and Filter
- **Fixed Solder Contacts** - Amphenol MIL-DTL-38999 Series I LJT and II JT, are available in solder versions as both Commercial and Military qualified to MIL-DTL-27599
- **Hermetic** - air leakage limited to 1 X 10⁻⁷ cm³ per second optional
- **"Breakaway" Lanyard Release Style** - available in LJT plugs. Provides quick disconnect of the connector plug and receptacle with axial pull on the lanyard. See pages 94-96.
- **Inventory Support Commonality** - uses standard MIL-DTL-38999 contacts, insert arrangements and application tools.
- **RoHS Compliant Product Available** - Consult Amphenol Aerospace Operations.



**MIL-DTL-38999
Series II JT**

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle

5015 Crimp Rear Release Matrix
22992 Class 1

Back-Shells
Options Others

Easy Steps to build a commercial part number... Series I and II

Commercial

1.	2.	3.	4.	5.	6.	7.	
Connector Type Series I	Type II	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Position	Strain Relief/Finish Variation Suffix
LJT	JT	00	RT	9-35	P	B	SR (014)

Step 1. Select a Connector Type

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
JT						

Series I	Series II	Designates
	JT	Standard Junior Tri-Lock
LJT		Long Junior Tri-Lock
LJTS	JTS	High temperature connector
LJTN	JTN	Chemical and fuel resistant
	JTL	Miniature mounting dimensions
	JTLN	Miniature mounting dimensions—Chemical resistant
	JTLS	Miniature mounting dimensions— High temperature
LJTPQ	JTPQ	Back panel mounted wall mounting receptacle
LJTP	JTP	Back panel mounted box mounting receptacle
LJTPN	JTPN	Back panel mounted—Chemical resistant
LJTPS	JTPS	Back panel mounted—High temperature
	JTG	Plug with grounding fingers*
	JTNG	Plug with grounding fingers* —Chemical resistant

*Grounding fingers standard on all LJT plugs

Step 2. Select a Shell Style

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
	00					

JT	JTL	JTPQ	JTG	Designates
JTS	JTLN	JTP	JTNG	
JTN	JTLS	JTPN		
LJT		JTPS		
LJTS		LJTPQ		
LJTN		LJTP		
		LJTPN		
		LJTPS		
00		00		Wall mount receptacle (Hermetic option)
01				Line mount receptacle (Non-hermetic)
02		02		Box mount receptacle (Hermetic Option except for LJT)
06			06	Straight plug (Non-hermetic)
07	07			Jam nut receptacle (Hermetic Option)
08			08	90 degree plug (Non-hermetic)
I				Solder mount receptacle (hermetic)

Series I LJT

Series II JT



Wall Mounting Receptacle



Wall Mounting Receptacle



Line Receptacle



Box Mounting Receptacle



Jam Nut Receptacle



Straight Plug



Straight Plug



Jam Nut Receptacle



Solder Mounting Receptacle



90° Plug



Lanyard Release Plug
(See pages 94-96 for ordering)



Solder Mounting Receptacle

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

How to Order (Commercial)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options Others

Step 3. Select a Service Class

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
		RX				

JT	JTS	JTN	JTG JTNG	LJTS	LJT	Solder Contacts/Connectors
P		P			P	Potting applications: These connectors are supplied with a potting boot. All shells are designed with integral features to retain potting boots.
A		A	A			General Applications (JT only molded in solder type contacts)
A (SR)						Threaded rear design with strain relief †
C					C	Pressurized applications
C (SR)						Threaded rear design with strain relief. †
H	H				H	Hermetic applications- Fused compression glass sealed inserts. Leakage rate less than .01 micron cu. ft./hr. (1 x 10 ⁻⁷ cc/sec.) at 15 psi differential.
Y	Y			Y	Y	Same as "H" with interfacial seal.
T					T	MIL-DTL-27599 applications-general duty, pressurized (receptacle only) (LJT only molded in solder type contacts)

JT JTN JTG JTNG JTPQ LJT JTPQ LJTPQ	JTS	JTLS	JTL JTLN LJTP	LJTS	JTPS LJTPS	Crimp Contacts/Connectors
RP	RP	RP	RP			Potting crimp applications. Supplied with spacer grommet and potting boot. ††
RE	RE	RE	RE	RE	RE	Environmental crimp applications. Supplied with a grommet and compression nut. † Can be supplied with strain relief integral with compression nut "RE(SR)".
RT	RT		RT	RT	RT	Environmental applications. Supplied without rear accessories. Design provides serrations on rear threads of shells.

† Not applicable to box mounting style or LJT Series I.
†† Not applicable to box mounting style.

Step 4. Select a Shell Size & Insert Arrangement see page 6-9

First number represents Shell Size, second number is the Insert Arrangement.

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
			22-2			

Step 5. Select a Contact Type

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
				P		

	Designates
P	Pin Contacts
S	Socket Contacts

How to Order (Commercial)

38999

- III
- HD
- Dualok
- II**
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size Insert Arrg.	Contact Type	Alternate Position	Special Variations
					A	

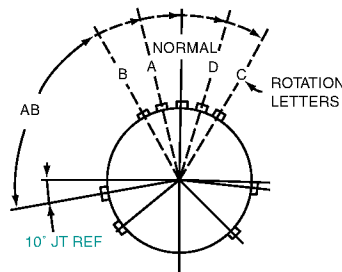
Step 6. Select an Alternate Keying Position

“A” designates Alternate keying connector assembly. Other basic alternate keys are “B”, “C” and “D”. No letter required for normal rotation (no rotation) position.

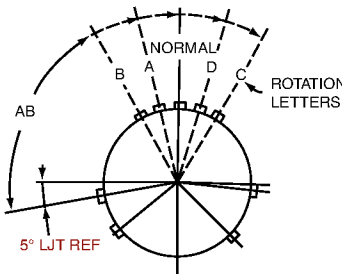
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The AB angle for a given connector is the same whether it contains pins or sockets. Only the master key/keyway rotates in the shell, and the minor keys are fixed.

AB angles shown are viewed from the front face of the connector, a receptacle is shown below. The angles for the plug are exactly the same except the direction of rotation is opposite of that shown for the receptacle.

The “N” designation is not referenced in part number, it is omitted.



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

JT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal	A	B	C	D
8	100°	82°	-	-	118°
10	100°	86°	72°	128°	114°
12	100°	80°	68°	132°	120°
14	100°	79°	66°	134°	121°
16	100°	82°	70°	130°	118°
18	100°	82°	70°	130°	118°
20	100°	82°	70°	130°	118°
22	100°	85°	74°	126°	115°
24	100°	85°	74°	126°	115°

LJT Key/Keyway Rotation

AB ANGLE OF ROTATION (Degrees)					
Shell Size	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Service Class	Shell Size-Insert Arrg.	Contact Type	Alternate Position	Special Variations
						()

Step 7. Select a Strain Relief Option or Finish Variation Suffix

Strain Relief Options: “SR” designates a strain relief clamp. Strain reliefs are available only on Service Class “A”, “C” and “RE” (see step 3. Service Class)

Finish Variation Suffix: See finish variations available in table to your right.

Finish	Military Finish Data	Finish Suffix	Finish Plus “SR” Suffix
Cadmium plated nickel base 175°C	A		(SR)
Olive drab cadmium plate nickel base 175°C	B	(014)	(386)
Electroless nickel 200°C	F	(023)	(424)
Electroless nickel, space compatible 200°C		(453)	(467)
Anodic coating (Alumilite) 200°C	C	(005)	(300)
Chromate treated (Iridite 14-2) 125°C		(011)	(344)
Passivated steel 200°C	E	-	-
Nickel-PTFE 175°C		(038)	

How to Order (Military)

Easy Steps to build a Military part number... Series I and II
Military

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Keying Position
MS27473	E	14	A	18	P	A

Step 1. Choose your Military Connector Type

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
MS27473						

Series II JT

MIL-DTL-38999	
MS27472	Crimp Wall Mount Receptacle
MS27497	Crimp Wall Mount Receptacle (Back Panel Mounting)
MS27499	Crimp Box Mounting Receptacle
MS27513	Crimp Box Mounting Receptacle with grommet
MS27508	Crimp Box Mounting Receptacle (Back Panel Mounting)
MS27473	Crimp Straight Plug
MS27484	Crimp Straight Plug with Grounding Fingers
MS27474	Crimp Jam Nut Receptacle
MS27500	Crimp 90° plug
MS27475	Hermetic Wall Mounting Receptacle
MS27476	Hermetic Box Mounting Receptacle
MS27477	Hermetic Jam Nut Receptacle
MS27478	Hermetic Solder Mounting Receptacle
MIL-DTL-27599	
MS27334	Solder Wall Mount Receptacle
MS27335	Solder Box Mounting Receptacle
MS27336	Solder Straight Plug
MS27337	Solder Jam Mounting Receptacle

Series I LJT

MIL-DTL-38999	
MS27466	Crimp Wall Mount Receptacle
MS27656	Crimp Wall Mount Receptacle (Back Panel Mounting)
MS27496	Crimp Box Mounting Receptacle
MS27505	Crimp Box Mounting Receptacle (Back Panel Mounting)
MS27467	Crimp Straight Plug
MS27468	Crimp Jam Nut Receptacle
MS27469	Hermetic Wall Mounting Receptacle
MS27470	Hermetic Jam Nut Receptacle
MS27471	Hermetic Solder Mounting Receptacle
MIL-DTL-27599	
MS20026	Solder Wall Mounting Receptacle
MS20027	Solder Line Receptacle
MS20028	Solder Straight Plug
MS20029	Solder Jam Nut Receptacle

Step 2. Select a Military Service Class

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
	E					

Military	Service Class
E	Environmental crimp applications. Supplied with a grommet and compression nut.† Can be supplied with strain relief integral with compression nut "RE(SR)". (JT Series only). Box Mount versions using spacer grommets are not environmental.
P	Potting crimp applications. Supplied with spacer grommet and potting boot.††
T	Environmental applications. Supplied without rear accessories. Design provides serrations on rear threads of shells. (Not applicable to solder type or hermetics)
Y	Hermetically interfacial seal

† Not applicable to box mounting style or LJT Series I.
†† Not applicable to box mounting style.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options
Others

How to Order (Military)

38999

- III
- HD
- Dualok
- II**
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Step 3 & 5. Select a Shell Size and Insert Arrangement from Pages 6-9

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	4. Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
		14		18		

Shell Size & Insert Arrangement are on pages 6-9. First number represents Shell Size, second number is the Insert Arrangement. Place Shell Size in box 3 and Insert Arrangement in box 5.

Step 4. Select a Military Finish

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
			A			

Finish	Military Finish Data	Finish Suffix	Finish Plus "SR" Suffix
Cadmium plated nickel base 175°C	A		(SR)
Olive drab cadmium plate nickel base 175°C	B	(014)	(386)
Electroless nickel 200°C	F	(023)	(424)
Electroless nickel, space compatible 200°C		(453)	(467)
Anodic coating (Alumilite) 200°C	C	(005)	(300)
Chromate treated (Iridite 14-2) 125°C		(011)	(344)
Passivated steel 200°C	E	-	-
Nickel-PTFE 175°C		(038)	

Step 6. Select a Military Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
					P	

Step 7. Select an Alternate Keying Position

See page 64 for information, No letter required for normal position

1.	2.	3.	4.	5.	6.	7.
MS Number	Service Class	Shell Size	Finish	Insert Arrangement	Contact Style (P or S)	Alternate Position
						A

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

Amphenol MIL-DTL-38999, Series II, JT

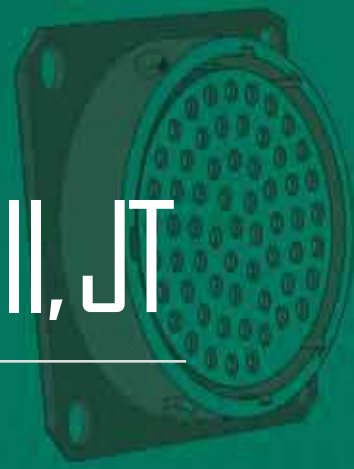


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s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

MIL-DTL-38999, Series II JT and Series I LJT

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

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s ~~RIMP PANEL COUNTING~~ *40123

s ~~RIMP RECEPTACLE~~

s ~~RIMP X-COUNTING 2 RECEPTACLES~~ *423 *42 -3

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s ~~RIMP 7 ALIGNED RECEPTACLE~~ 23

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s ~~RIMP RIGHT LOG~~

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s ~~RIMP RIGHT LOG~~

s ~~RIMP BUSH MOUNTING~~

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MIL-DTL-38999 Series II Typical Markets:

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s)32

Amphenol
Aerospace

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

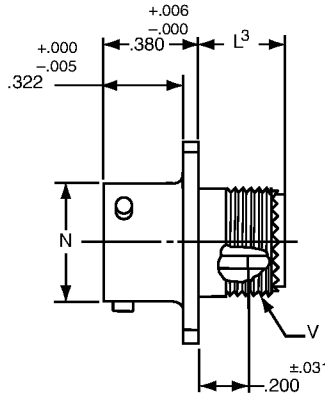
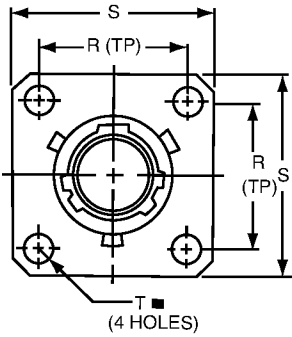
PART # Part number reference. To complete, see how to order pages 62-66.

Commercial

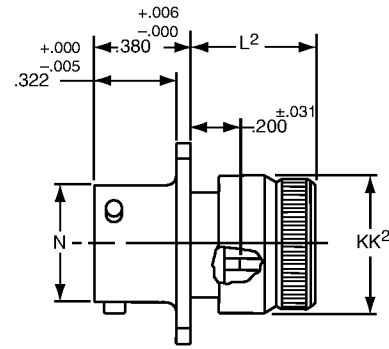
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	00	RT	22-2	P	A	(XXX)

Military

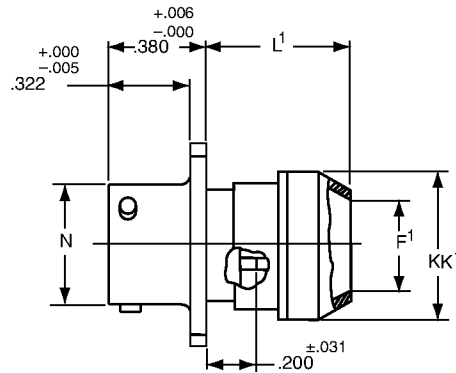
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27472	E	14	A	18	P	A
MS27479	E	14	A	18	P	A



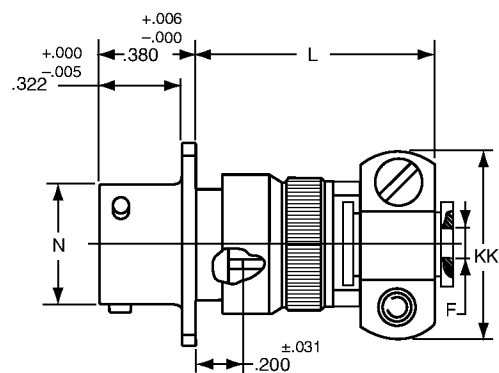
* JT00RT-XX-XXX (MS27472T)
 ** JTS00RT-XX-XXX (MS27479T)
 *** JTN00RT-XX-XXX



* JT00RE-XX-XXX (MS27472E)
 ** JTS00RE-XX-XXX (MS27479E)
 *** JTN00RE-XX-XXX



* JT00RP-XX-XXX (MS27472P)
 ** JTS00RP-XX-XXX
 *** JTN00RP-XX-XXX



* JT00RE-XX-XXX (SR)
 ** JTS00RE-XX-XXX (SR)
 *** JTN00RE-XX-XXX (SR)

- ⊕ .005 DIA
- Ⓜ
- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	F Dia. +.010 / -.025	F¹ Dia. ±.010	L Max.	L¹ Max.	L² Max.	L³ Max.	N +.001 / -.005	R (TP)	S ±.016	T ±.005	V Thread UNEF Class 2A (Plated)	KK Max.	KK¹ Dia. Max.	KK² Dia. Max.
8	.125	.444	1.094	.609	.547	.500	.473	.594	.812	.120	.4375-28	.812	.625	.578
10	.188	.558	1.094	.609	.547	.500	.590	.719	.938	.120	.5625-24	.875	.750	.703
12	.312	.683	1.094	.609	.547	.500	.750	.812	1.031	.120	.6875-24	1.000	.875	.828
14	.375	.808	1.344	.609	.547	.500	.875	.906	1.125	.120	.8125-20	1.125	1.000	.953
16	.500	.909	1.344	.609	.547	.500	1.000	.969	1.219	.120	.9375-20	1.188	1.125	1.078
18	.625	1.034	1.344	.609	.547	.500	1.125	1.062	1.312	.120	1.0625-18	1.438	1.250	1.203
20	.625	1.159	1.344	.609	.547	.500	1.250	1.156	1.438	.120	1.1875-18	1.438	1.375	1.328
22	.750	1.284	1.469	.609	.547	.500	1.375	1.250	1.562	.120	1.3125-18	1.625	1.500	1.453
24	.800	1.409	1.469	.688	.547	.500	1.500	1.375	1.688	.147	1.4375-18	1.719	1.625	1.578

All dimensions for reference only.

JTPQ00R (MS27497) Series II – Crimp Wall Mounting Receptacle (Back Panel Mounting)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

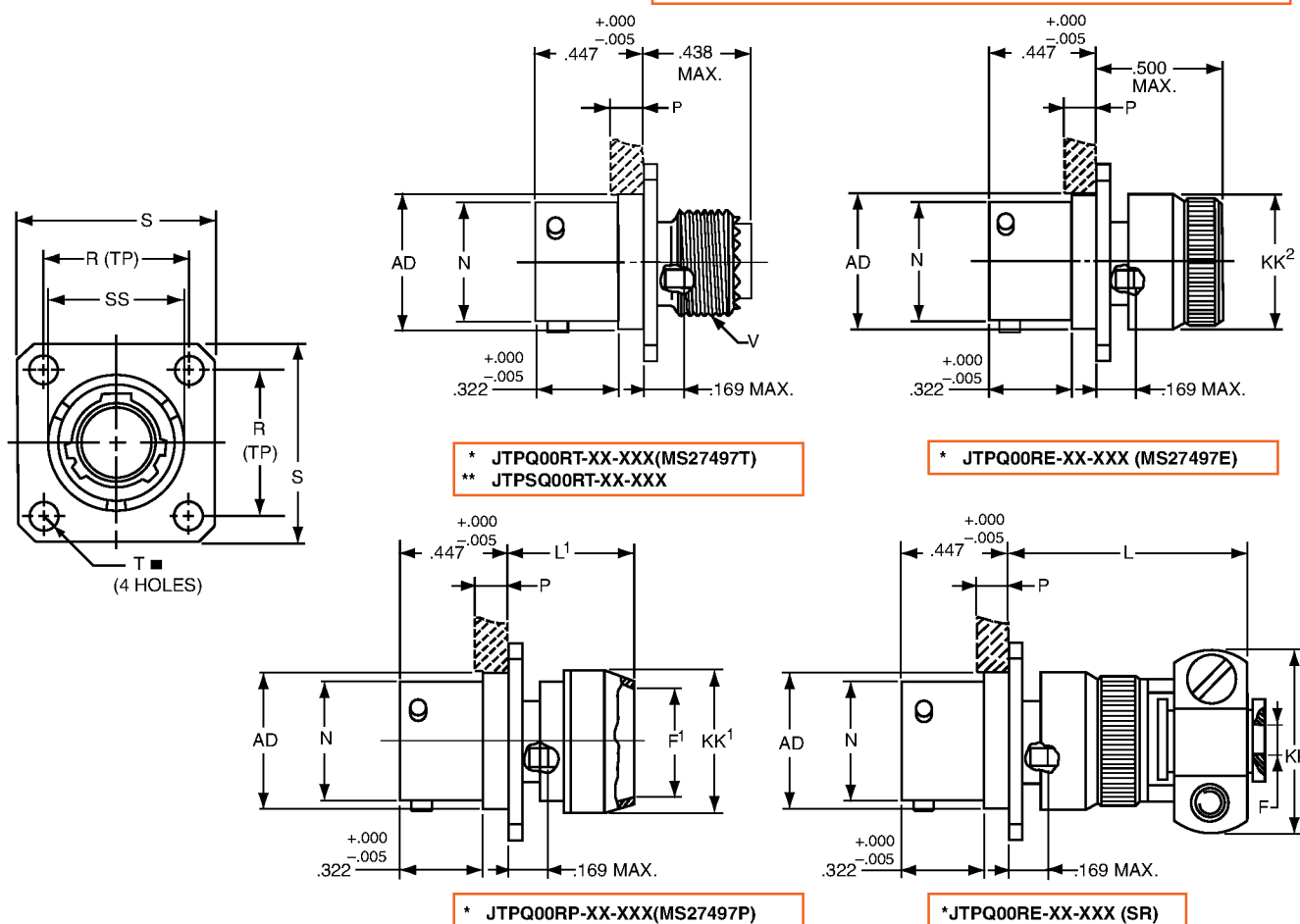
Options
Others

PART # Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTPQ/JTPSQ	00	RT	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27497	E	14	A	18	P	A



⊕ .005 DIA (M)

* Standard Junior Tri-Lock

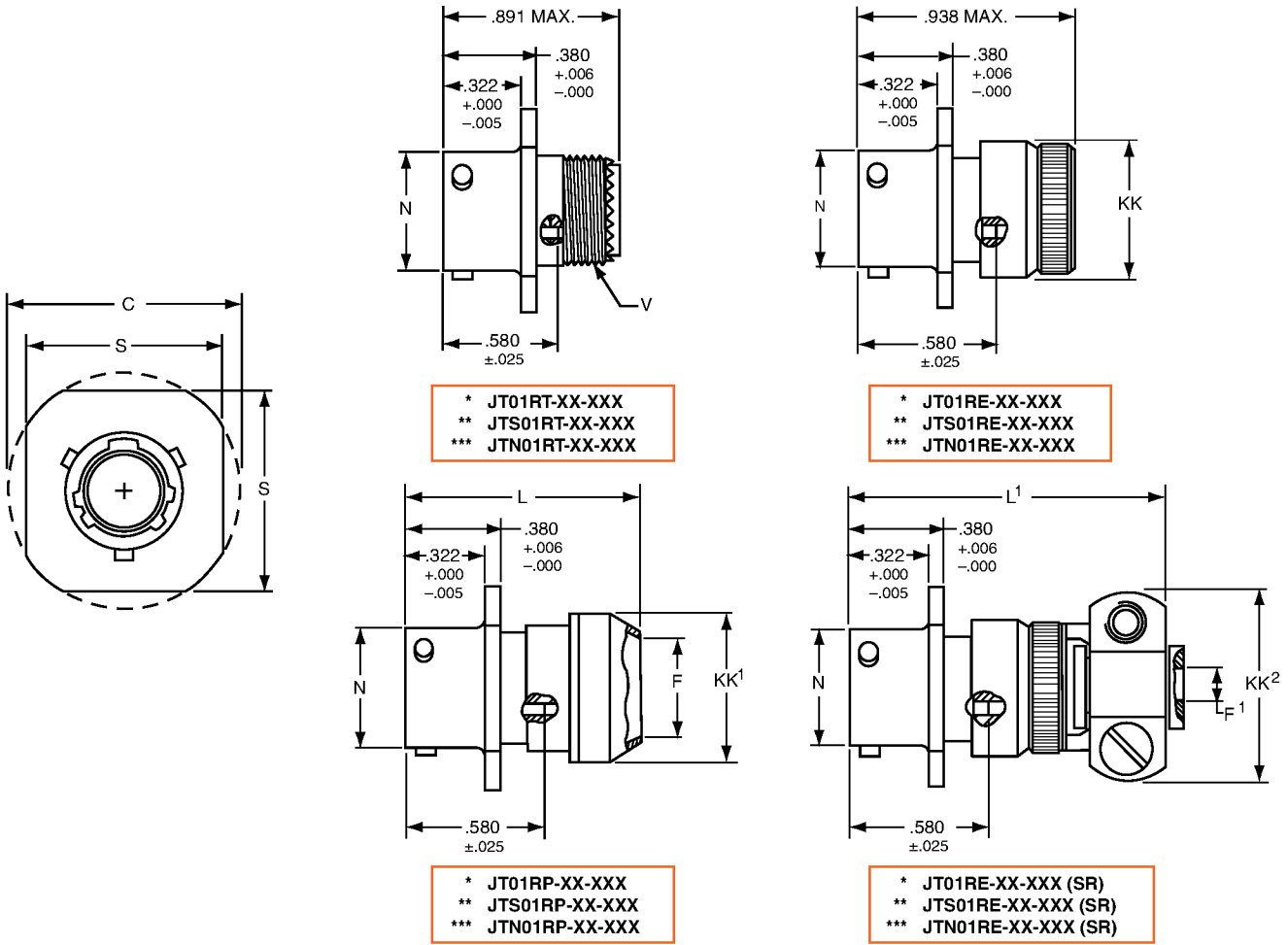
** High temperature version

Shell Size	F Dia. +.010 -0.025	F' Dia. ±.010	L Max.	L' Max.	N +.001 -0.005	P Max. Panel Thickness	R (TP)	S ±.016	T ±.005	V Thread UNEF Class 2A (Plated)	AD Dia. ±.005	KK Max.	KK' Dia. Max.	KK² Dia. Max.	SS Dia. +.000 -0.016
8	.125	.444	1.140	.468	.473	.142	.594	.812	.120	.4375-28	.516	.781	.625	.578	.563
10	.188	.558	1.140	.468	.590	.142	.719	.938	.120	.5625-24	.633	.844	.750	.703	.680
12	.312	.683	1.140	.468	.750	.142	.812	1.031	.120	.6875-24	.802	.969	.875	.828	.859
14	.375	.808	1.375	.468	.875	.142	.906	1.125	.120	.8125-20	.927	1.094	1.000	.953	.984
16	.500	.909	1.375	.468	1.000	.142	.969	1.219	.120	.9375-20	1.052	1.154	1.125	1.078	1.108
18	.625	1.034	1.375	.468	1.125	.142	1.062	1.312	.120	1.0625-18	1.177	1.406	1.250	1.203	1.233
20	.625	1.159	1.375	.468	1.250	.142	1.156	1.438	.120	1.1875-18	1.302	1.406	1.375	1.328	1.358
22	.750	1.284	1.516	.468	1.375	.142	1.250	1.562	.120	1.3125-18	1.427	1.594	1.500	1.453	1.483
24	.800	1.409	1.500	.540	1.500	.142	1.375	1.688	.147	1.4375-18	1.552	1.688	1.625	1.578	1.610

All dimensions for reference only.

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	01	RT	22-2	P	A	(XXX)



* Standard Junior Tri-Lock
 ** High temperature version
 *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	C Max.	F Dia. +.010	F ¹ Dia. +.010 - .025	L Max.	L ¹ Max.	N Dia. +.001 - .005	S +.017 - .016	V Thread UNEF Class 2A (Plated)	KK Dia. Max.	KK ¹ Dia. Max.	KK ² Max.
8	.965	.444	.125	1.031	1.562	.473	.812	.4375-28	.578	.625	.812
10	1.089	.558	.188	1.031	1.562	.590	.938	.5625-24	.703	.750	.875
12	1.183	.683	.312	1.031	1.562	.750	1.031	.6875-24	.828	.875	1.000
14	1.277	.808	.375	1.031	1.812	.875	1.125	.8125-20	.953	1.000	1.125
16	1.371	.909	.500	1.031	1.812	1.000	1.219	.9375-20	1.078	1.125	1.188
18	1.465	1.034	.625	1.031	1.812	1.125	1.312	1.0625-18	1.203	1.250	1.438
20	1.589	1.159	.625	1.031	1.812	1.250	1.438	1.1875-18	1.328	1.375	1.438
22	1.715	1.284	.750	1.031	1.938	1.375	1.562	1.3125-18	1.453	1.500	1.625
24	1.838	1.409	.800	1.109	1.938	1.500	1.688	1.4375-18	1.578	1.625	1.719

All dimensions for reference only.

JT02RE (MS27499) Series II – Crimp

JT02RE (053) (MS27513)

Box Mounting Receptacle

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

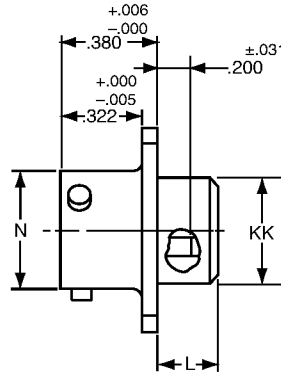
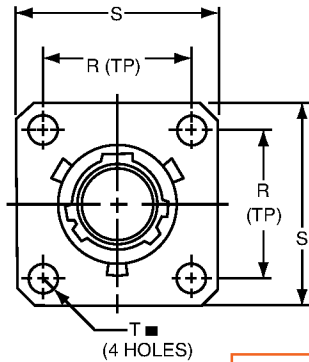
Options Others

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

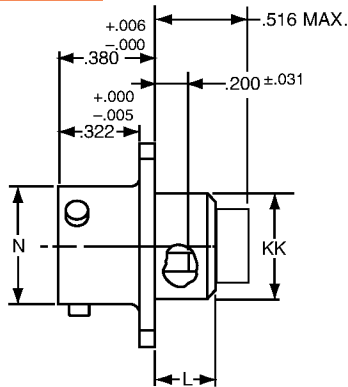
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	02	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27499	E	14	A	18	P	A
MS27513	E	14	A	18	P	A



- * JT02RE-XX-XXX (MS27499)
- ** JTS02RE-XX-XXX
- *** JTN02RE-XX-XXX



- * JT02RE-XX-XXX (053) (MS27513)
- ** JTS02RE-XX-XXX (053)
- *** JTN02RE-XX-XXX (053)

⊕ .005 DIA (M)

- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

All dimensions for reference only.
 NOTE: For applications requiring an environmental seal, please refer to JT00R, page 63.

38999

- III
- HD
- Dualok
- II**
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

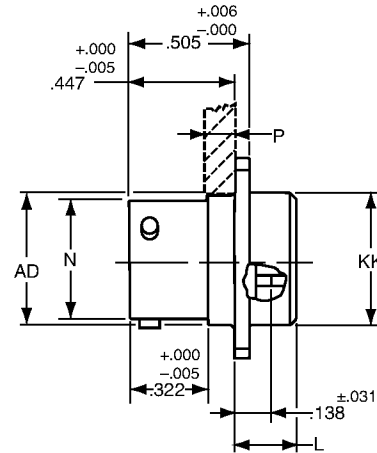
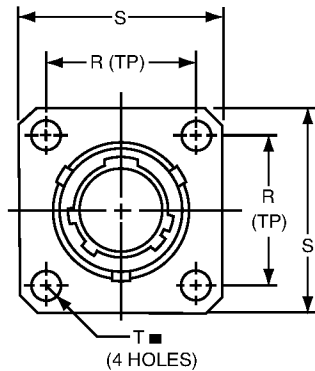
PART # Part number reference. To complete, see how to order pages 62-66.

Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTPS/JTPN	02	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27508	E	14	A	18	P	A



* JTP02RE-XX-XXX (MS27508E)
 ** JTPS02RE-XX-XXX
 ***JTPN02RE-XX-XXX

■ $\text{⊕} \text{ } .005 \text{ DIA } \text{Ⓜ}$

- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N_2O_4 resistant

Shell Size	L Max.	N +.001 -.005	P Max. Panel Thickness	R (TP)	S ±.016	T Dia. ±.005	AD Dia. ±.005	KK Dia. Max.
8	.225	.473	.147	.594	.812	.120	.516	.531
10	.225	.590	.152	.719	.938	.120	.633	.656
12	.225	.750	.152	.812	1.031	.120	.802	.828
14	.225	.875	.152	.906	1.125	.120	.927	.953
16	.225	1.000	.152	.969	1.219	.120	1.052	1.078
18	.225	1.125	.152	1.062	1.312	.120	1.177	1.203
20	.225	1.250	.179	1.156	1.438	.120	1.302	1.328
22	.225	1.375	.179	1.250	1.562	.120	1.427	1.453
24	.225	1.500	.169	1.375	1.688	.147	1.552	1.578

JT06R (MS27473) Series II – Crimp Straight Plug

PART # Commercial

Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27473	E	14	A	18	P	A

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

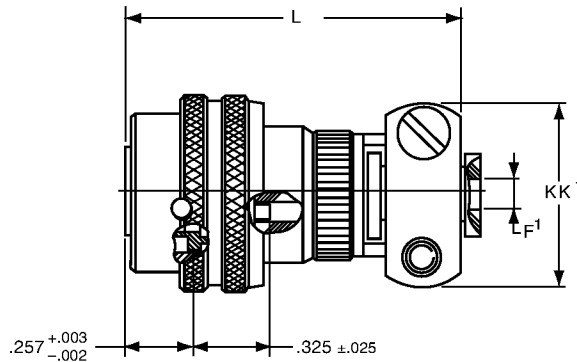
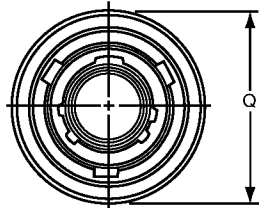
EMI Filter
Transient
26482
Matrix 2
83723 III
Matrix | Pyle
26500
Pyle

5015
Crimp Rear Release Matrix

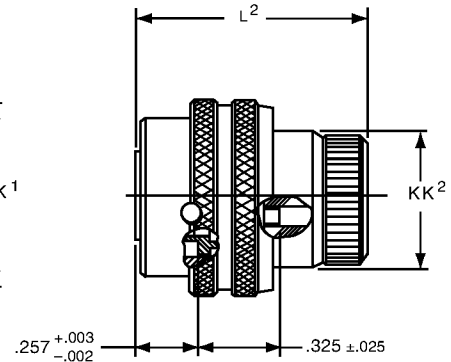
22992
Class 1

Back-
Shells

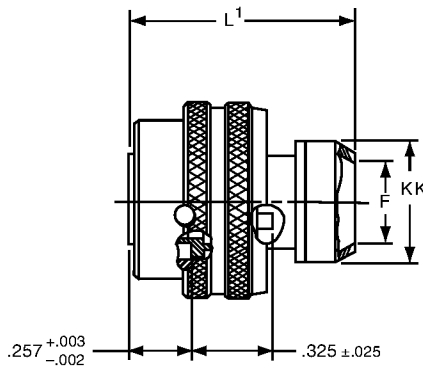
Options
Others



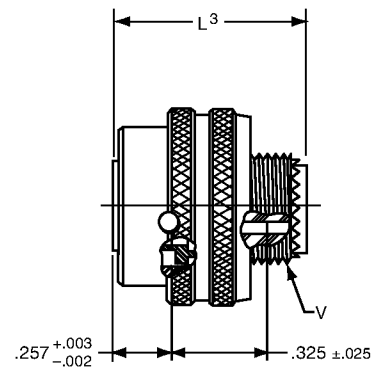
* JT06RE-XX-XXX (SR)
 ** JTS06RE-XX-XXX (SR)
 ***JTN06RE-XX-XXX(SR)



* JT06RE-XX-XXX (MS27473E)
 ** JTS06RE-XX-XXX
 ***JTN06RE-XX-XXX



* JT06RP-XX-XXX (MS27473P)
 ** JTS06RP-XX-XXX
 ***JTN06RP-XX-XXX



* JT06RT-XX-XXX (MS27473T)
 ** JTS06RT-XX-XXX
 ***JTN06RT-XX-XXX

- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	F Dia.	F ¹ Dia. +.001 / -.025	L Max.	L ¹ Max.	L ² Max.	L ³ Max.	Q Dia Max.	V Thread Modified		KK Dia. Max.	KK ¹ Max.	KK ² Dia. Max.
								Class 2A UNEF	Modified Major Dia.			
8	.444	.125	1.562	1.000	.938	.891	.734	.4375-28	.421 – .417	.625	.812	.578
10	.558	.188	1.562	1.000	.938	.891	.844	.5625-24	.542 – .538	.750	.875	.703
12	.683	.312	1.562	1.000	.938	.891	1.016	.6875-24	.667 – .663	.875	1.000	.828
14	.808	.375	1.812	1.000	.938	.891	1.141	.8125-20	.791 – .787	1.000	1.125	.953
16	.909	.500	1.812	1.000	.938	.891	1.265	.9375-20	.916 – .912	1.125	1.188	1.078
18	1.034	.625	1.812	1.000	.938	.891	1.391	1.0625-18	1.034 – 1.030	1.250	1.438	1.203
20	1.159	.625	1.812	1.000	.938	.891	1.500	1.1875-18	1.158 – 1.154	1.375	1.438	1.328
22	1.284	.750	1.938	1.000	.938	.891	1.625	1.3125-18	1.283 – 1.279	1.500	1.625	1.453
24	1.409	.800	1.938	1.062	.938	.891	1.750	1.4375-18	1.408 – 1.404	1.625	1.719	1.578

All dimensions for reference only.

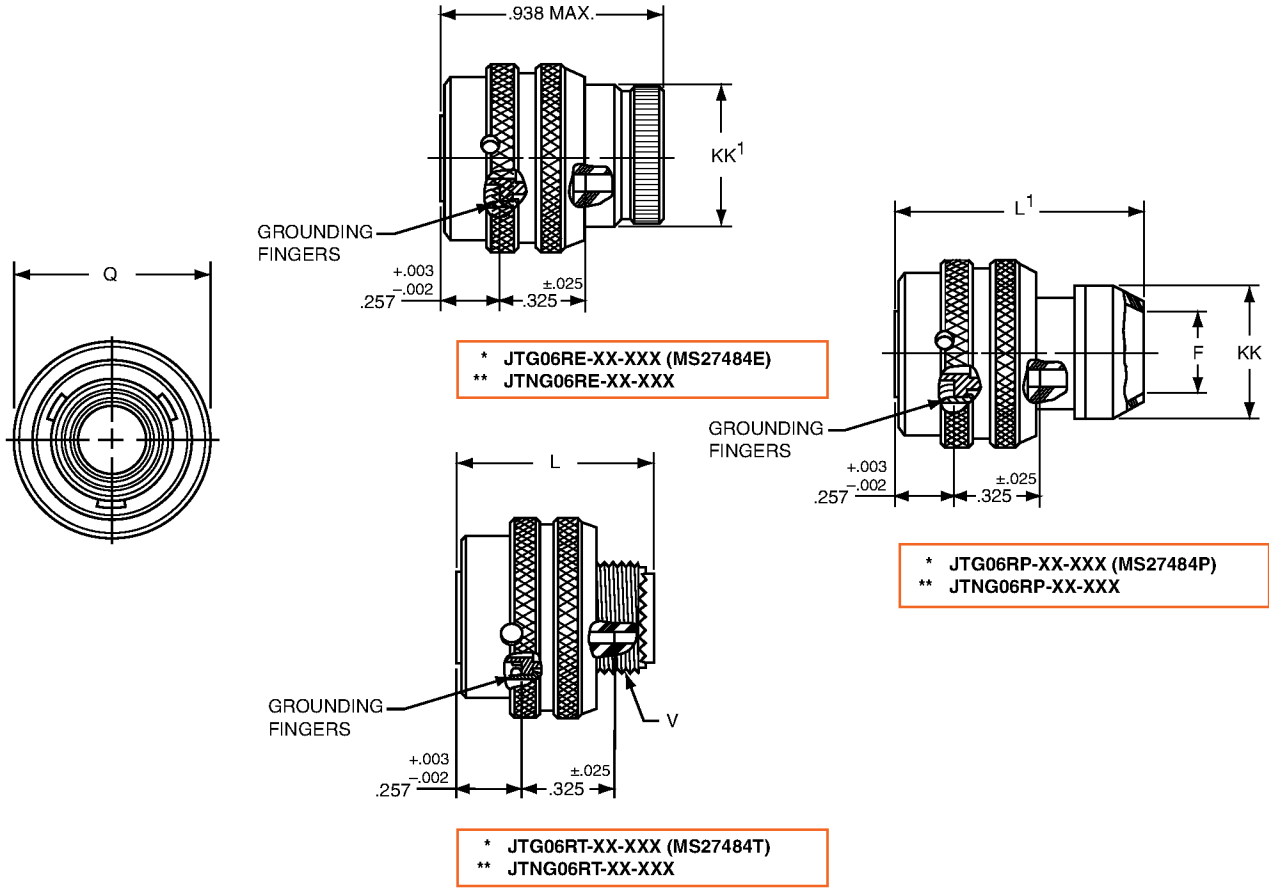
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTG/JTNG	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27484	E	14	A	18	P	A



* Plug with grounding fingers
 ** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	F Dia.	L Max.	L' Max.	Q Dia Max.	V Thread Modified		KK Dia. Max.	KK' Dia. Max.
					Class 2A UNEF	Modified Major Dia.		
8	.444	.891	1.000	.734	.4375-28	.421 – .417	.625	.578
10	.558	.891	1.000	.844	.5625-24	.542 – .538	.750	.703
12	.683	.891	1.000	1.016	.6875-24	.667 – .663	.875	.828
14	.808	.891	1.000	1.141	.8125-20	.791 – .787	1.000	.953
16	.909	.891	1.000	1.265	.9375-20	.916 – .912	1.125	1.078
18	1.034	.891	1.000	1.391	1.0625-18	1.034 – 1.030	1.250	1.203
20	1.159	.891	1.000	1.500	1.1875-18	1.158 – 1.154	1.375	1.328
22	1.284	.891	1.000	1.625	1.3125-18	1.283 – 1.279	1.500	1.453
24	1.409	.891	1.062	1.750	1.4375-18	1.408 – 1.404	1.625	1.578

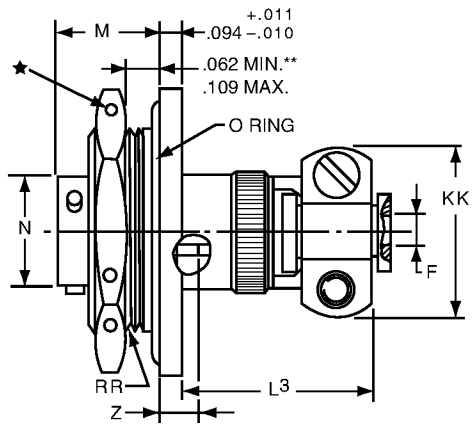
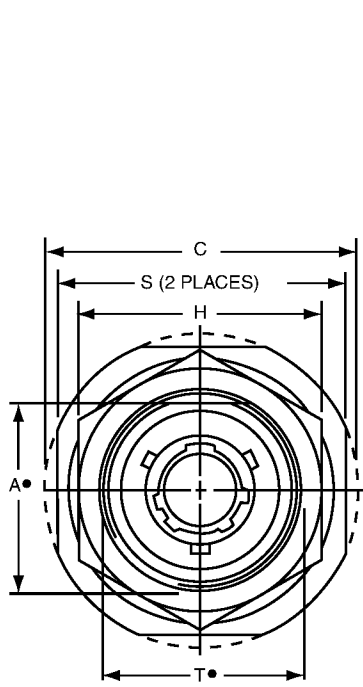
All dimensions for reference only.

JT07R (MS27474) Series II – Crimp Jam Nut Receptacle

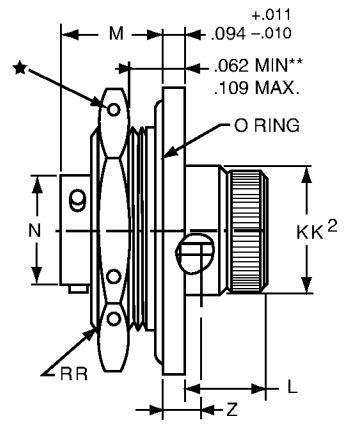
PART #		Part number reference. To complete, see how to order pages 62-66.						
Commercial		Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
		JT/JTS/JTN	07	RE	22-2	P	A	(XXX)
Military		MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
		MS27474	E	14	A	18	P	A

38999

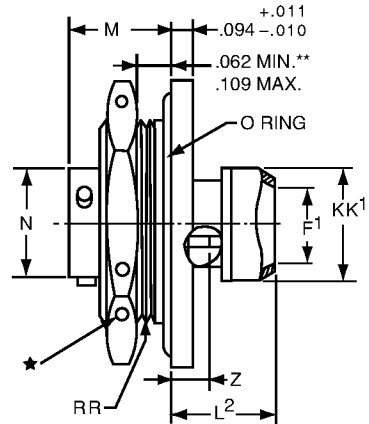
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables



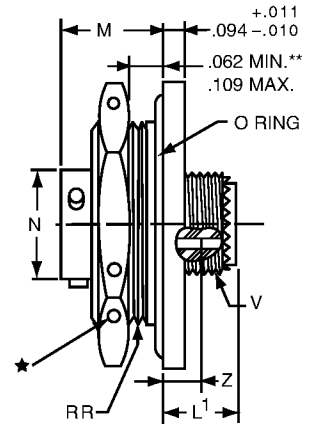
* JT07RE-XX-XXX (SR)
 *** JTS07RE-XX-XXX (SR)
 **** JTN07RE-XX-XXX (SR)



* JT07RE-XX-XXX (MS27474E)
 *** JTS07RE-XX-XXX
 **** JTN07RE-XX-XXX



* JT07RP-XX-XXX (MS27474P)
 *** JTS07RP-XX-XXX
 **** JTN07RP-XX-XXX



* JT07RT-XX-XXX (MS27474T)
 *** JTS07RT-XX-XXX
 **** JTN07RT-XX-XXX

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- * Standard Junior Tri-Lock
- ** Panel Thickness
- *** High temperature version
- **** Clear iridite finish (gold color), N₂O₄ resistant

EMI Filter
Transient
26482
Matrix 2
83723 III
Matrix | Pyle
26500
Pyle
5015
Crimp Rear Release Matrix
22992
Class 1
Back-
Shells
Options
Others

Shell Size	A* +.000 -.010	C Max.	F Dia. +.010 -.025	F ¹ Dia.	H Hex +.017 -.016	L Max.	L ¹ Max.	L ² Max.	L ³ Max.	M ±.005	N Dia. +.001 -.005	S ±.016	T* +.010 -.000	V Thread UNEF Class 2A	Z ±.031	KK Max.	KK ¹ Dia. Max.	KK ² Max.	RR Thread (Plated) Class 2A
8	.830	1.390	.125	.444	1.062	.484	.453	.563	1.047	.438	.473	1.250	.884	.4375-28	.144	.812	.625	.578	.8750-20UNEF
10	.955	1.515	.188	.558	1.188	.484	.453	.563	1.047	.438	.590	1.375	1.007	.5625-24	.144	.875	.750	.703	1.0000-20UNEF
12	1.084	1.640	.312	.683	1.312	.484	.453	.563	1.047	.438	.750	1.500	1.134	.6875-24	.144	1.000	.875	.828	1.1250-18UNEF
14	1.208	1.765	.375	.808	1.438	.484	.453	.563	1.297	.438	.875	1.625	1.259	.8125-20	.144	1.125	1.000	.953	1.2500-18UNEF
16	1.333	1.953	.500	.909	1.562	.484	.453	.563	1.297	.438	1.000	1.781	1.384	.9375-20	.144	1.188	1.125	1.078	1.3750-18UNEF
18	1.459	2.031	.625	1.034	1.688	.484	.453	.563	1.297	.438	1.125	1.890	1.507	1.0625-18	.144	1.438	1.250	1.203	1.5000-18UNEF
20	1.576	2.156	.625	1.159	1.812	.453	.422	.531	1.266	.464	1.250	2.016	1.634	1.1875-18	.188	1.438	1.375	1.328	1.6250-18UNEF
22	1.701	2.280	.750	1.284	2.000	.453	.422	.531	1.391	.464	1.375	2.140	1.759	1.3125-18	.188	1.625	1.500	1.453	1.7500-18UNS
24	1.826	2.405	.800	1.409	2.125	.375	.422	.609	1.391	.464	1.500	2.265	1.884	1.4375-18	.188	1.719	1.625	1.578	1.8750-16UN

All dimensions for reference only.

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JTL/JTLS/JTLN	07	RP	22-2	P	A	(XXX)

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

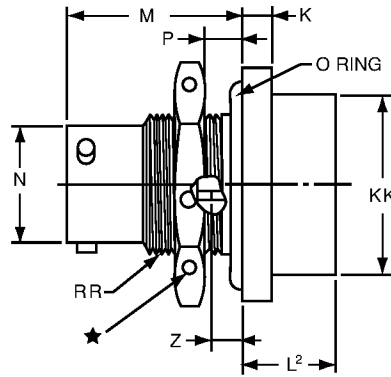
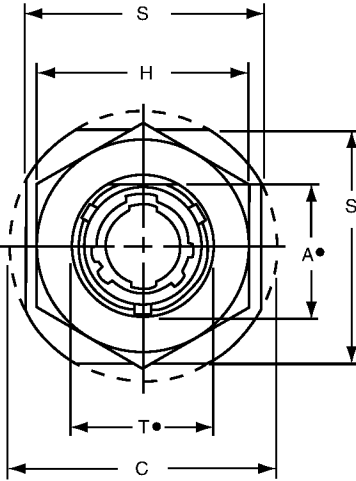
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

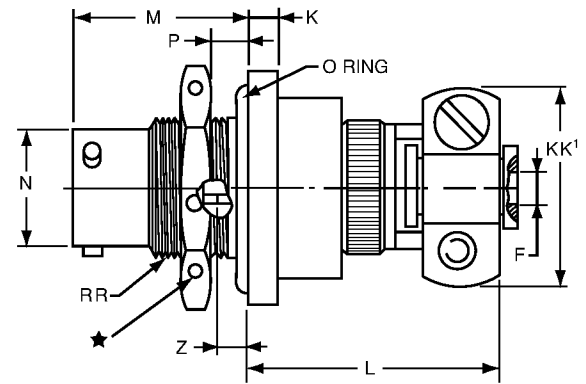
- 22992 Class I

- Back-Shells

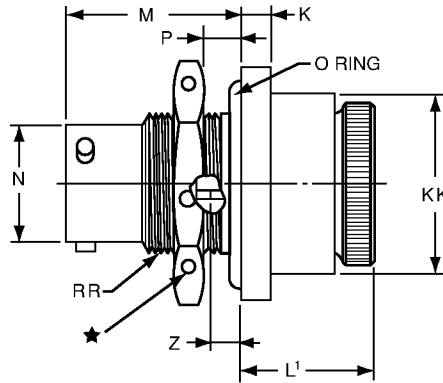
- Options Others



* JTL07RP-XX-XXX
 *** JTLS07RP-XX-XXX
 **** JTLN07RP-XX-XXX



* JTL07RE-XX-XXX (SR)
 *** JTLS07RE-XX-XXX (SR)
 **** JTLN07RE-XX-XXX (SR)



* JTL07RE-XX-XXX
 *** JTLS07RE-XX-XXX
 **** JTLN07RE-XX-XXX

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- * Miniature mounting dimensions
- *** High temperature version
- **** Clear iridite finish (gold color), N₂O₄ resistant

Shell Size	A* +.000 -.010	C Max.	F Dia. +.010 -.025	H Hex +.017 -.016	K +.011 -.010	L Max.	L¹ Max.	L² Max.	M ±.005	N Dia. +.001 -.005	P Panel Thickness		S ±.016	T* +.010 -.000	Z ±.026	KK Dia. Max.	KK¹ Max.	RR Thread Class 2A
											Min.	Max.						
8	.542	1.077	.125	.750	.125	1.062	.641	.375	.630	.473	.062	.125	.938	.572	.047	.688	.812	.5625-24UNEF
10	.669	1.203	.188	.875	.125	1.062	.641	.375	.630	.590	.062	.125	1.062	.697	.047	.812	.875	.6875-24UNEF
12	.830	1.390	.312	1.062	.125	1.062	.641	.375	.630	.750	.062	.125	1.250	.844	.047	.938	1.000	.8750-20UNEF
14	.955	1.515	.375	1.188	.125	1.062	.641	.375	.630	.875	.062	.125	1.375	1.007	.047	1.062	1.125	1.0000-20UNEF
16	1.084	1.640	.500	1.312	.125	1.062	.641	.375	.630	1.000	.062	.125	1.500	1.134	.047	1.188	1.188	1.1250-18UNEF
18	1.208	1.765	.625	1.438	.125	1.062	.641	.375	.630	1.125	.062	.125	1.625	1.259	.047	1.312	1.438	1.2500-18UNEF
20	1.333	1.953	.625	1.562	.156	1.062	.703	.328	.755	1.250	.062	.250	1.812	1.384	.172	1.469	1.438	1.3750-18UNEF
22	1.459	2.075	.750	1.688	.156	1.062	.703	.328	.755	1.375	.062	.250	1.938	1.507	.172	1.594	1.625	1.5000-18UNEF
24	1.575	2.203	.800	1.812	.156	1.062	.703	.328	.755	1.500	.062	.250	2.062	1.634	.172	1.719	1.719	1.6250-18UNEF

All dimensions for reference only.

JT08R (MS27500) Series II – Crimp 90° Plug

PART # Commercial

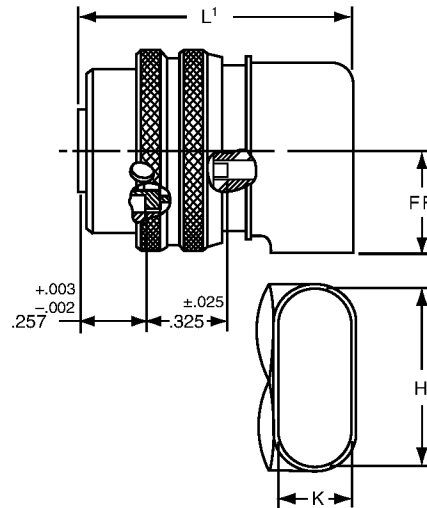
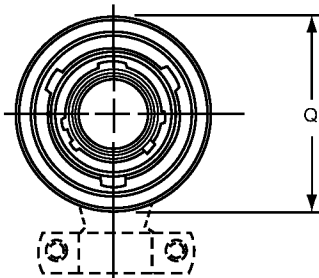
Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS/JTN	08	RP	22-2	P	A	(XXX)

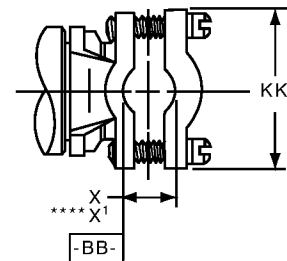
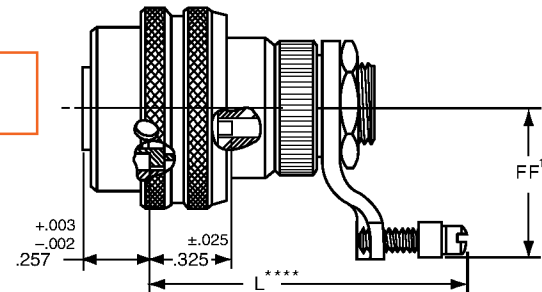
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27500	E	14	A	18	P	A

- * JT08RP-XX-XXX
- ** JTS08RP-XX-XXX
- *** JTN08RP-XX-XXX



- * JT08RE-XX-XXX (MS27500E)
- ** JTS08RE-XX-XXX
- *** JTN08RE-XX-XXX



- * Standard Junior Tri-Lock
- ** High temperature version
- *** Clear iridite finish (gold color), N₂O₄ resistant
- ****Dimensions L and X' are applicable when the end of the screw is flush with the surface BB.

Shell Size	H ±.010	K ±.010	L Max.	L' Max.	Q Dia. Max.	X Min. Cable	X' Max. Cable	FF Max.	FF' Max.	KK Max.
8	.547	.156	1.578	1.125	.734	.082	.234	.438	.984	.755
10	.709	.188	1.578	1.156	.844	.082	.234	.516	1.016	.755
12	.829	.281	1.656	1.250	1.016	.114	.328	.594	1.078	.817
14	1.000	.438	1.844	1.406	1.141	.176	.457	.656	1.203	.943
16	1.021	.500	2.000	1.469	1.265	.238	.634	.719	1.265	1.067
18	1.145	.562	2.046	1.531	1.391	.208	.614	.781	1.328	1.149
20	1.270	.625	2.125	1.594	1.500	.302	.608	.844	1.359	1.399
22	1.395	.688	2.250	1.656	1.625	.302	.823	.906	1.421	1.399
24	1.520	.750	2.422	1.797	1.750	.332	.853	.969	1.703	1.587

All dimensions for reference only.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others

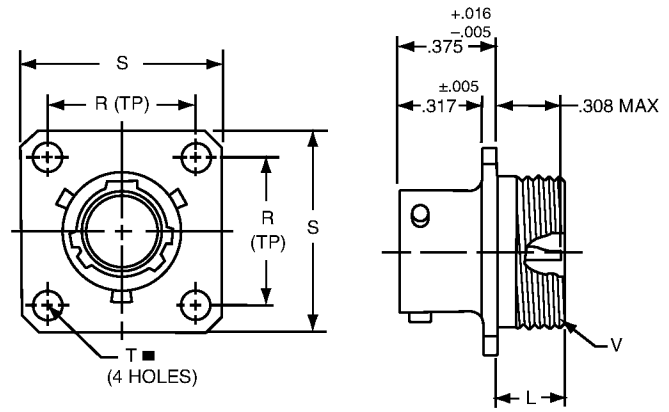
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART # Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS	00	H	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27475	Y	14	A	18	P	A
MS27482	Y	14	A	18	P	A
MS27476	Y	14	A	18	P	A



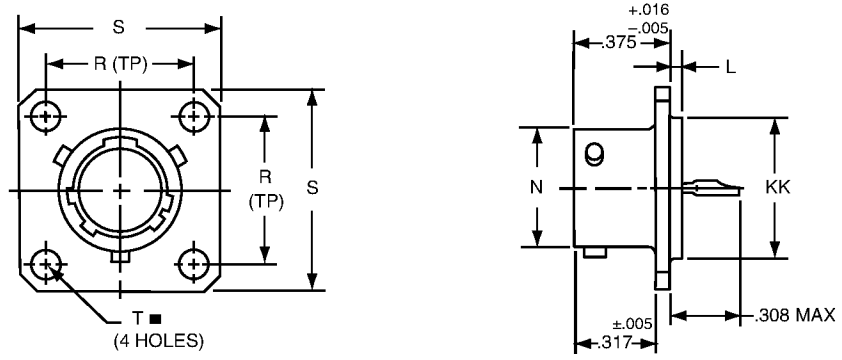
Shell Size	L Max.	N +.001 / -.005	R (TP)	S ±.016	T ±.005	V Thread Class 2A
8	.234	.473	.594	.812	.120	.5625-24UNEF
10	.234	.590	.719	.938	.120	.6875-24UNEF
12	.234	.750	.812	1.031	.120	.8125-20UNEF
14	.234	.875	.906	1.125	.120	.9375-20UNEF
16	.234	1.000	.969	1.219	.120	1.0625-18UNEF
18	.234	1.125	1.062	1.312	.120	1.1875-18UNEF
20	.234	1.250	1.156	1.438	.120	1.3125-18UNEF
22	.234	1.375	1.250	1.562	.120	1.4375-18UNEF
24	.313	1.500	1.375	1.688	.147	1.5625-18UNEF

- ⊕ .005 DIA ⊖
- * Standard Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

- * JT00H-XX-XXX
- ** JT00Y-XX-XXX (MS27475YXXDXXX)
- *** JTS00Y-XX-XXX (MS27482YXXEXXX)

JT02 (MS27476) Series II – Hermetic Box Mounting Receptacle

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix I Pyle
- 26500 Pyle
- 5015 Cimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others



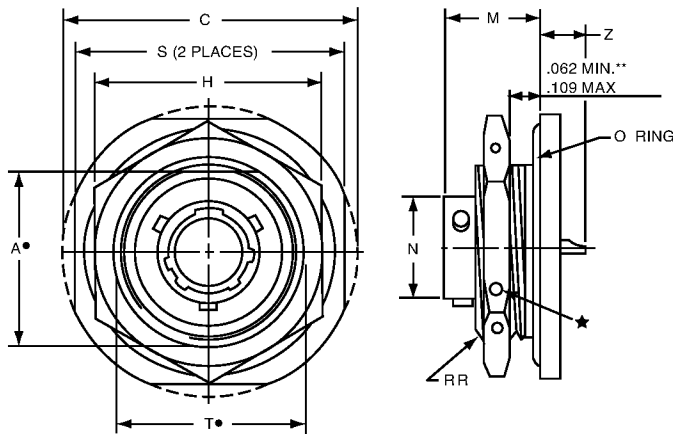
- ⊕ .005 DIA ⊖
- * Standard Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	L +.006 / -.015	N +.001 / -.005	R (TP)	S ±.016	T ±.005	KK +.001 / -.005
8	.051	.473	.594	.812	.120	.562
10	.051	.590	.719	.938	.120	.672
12	.051	.750	.812	1.031	.120	.781
14	.051	.875	.906	1.125	.120	.906
16	.051	1.000	.969	1.219	.120	1.031
18	.051	1.125	1.062	1.312	.120	1.156
20	.051	1.250	1.156	1.438	.120	1.250
22	.080	1.375	1.250	1.562	.120	1.375
24	.080	1.500	1.375	1.688	.147	1.500

- * JT02H-XX-XXX
- ** JT02Y-XX-XXX (MS27476YXXDXXX)
- *** JTS02Y-XX-XXX (MS27476YXXEXXX)

All dimensions for reference only.

JT07 (MS27477) Series II – Hermetic Jam Nut Receptacle



- * Standard Junior Tri-Lock
- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- “D” shaped mounting hole dimensions.
- ** Panel Thickness
- *** Interfacial seal wafer
- **** High temperature version, interfacial seal wafer with stainless steel shell

PART #
Commercial Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTS	07	H	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27477	Y	14	A	18	P	A
MS27483	Y	14	A	18	P	A
MS27478	Y	14	A	18	P	A
MS27503	Y	14	A	18	P	A

- * JT07H-XX-XXX
- *** JT07Y-XX-XX (MS27477YXXDXXX)
- **** JTS07Y-XX-XXX (MS27483YXXEXXX)

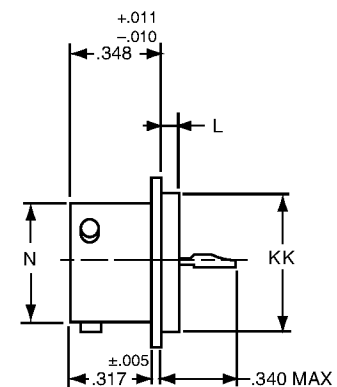
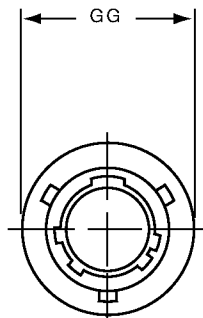
Shell Size	A* +.000 -.010	C Max.	H +.017 -.016	M ±.005	N +.001 -.005	S ±.016	T* +.010 -.000	Z Max.	RR Thread Class 2A
8	.830	1.390	1.062	.438	.473	1.250	.884	.244	8750-20UNEF
10	.955	1.515	1.188	.438	.590	1.375	1.007	.244	1.0000-20UNEF
12	1.084	1.640	1.312	.438	.750	1.500	1.134	.244	1.1250-18UNEF
14	1.208	1.765	1.438	.438	.875	1.625	1.259	.244	1.2500-18UNEF
16	1.333	1.953	1.562	.438	1.000	1.781	1.384	.244	1.3750-18UNEF
18	1.459	2.031	1.688	.438	1.125	1.890	1.507	.244	1.5000-18UNEF
20	1.576	2.156	1.812	.464	1.250	2.016	1.634	.218	1.6250-18UNEF
22	1.701	2.280	2.000	.464	1.375	2.140	1.759	.218	1.7500-18UNS
24	1.826	2.405	2.125	.464	1.500	2.265	1.884	.218	1.8750-16UN

JTI (MS27478) Series II – Hermetic Solder Mounting Receptacle

- * Standard Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

- * JTIH-XX-XXX
- ** JTIY-XX-XX (MS27478YXXDXXX)
- *** JTSIY-XX-XXX (MS27503YXXEXXX)

Shell Size	L +.011 -.010	N +.001 -.005	GG +.011 -.010	KK +.001 -.005
8	.078	.473	.687	.562
10	.078	.590	.797	.672
12	.078	.750	.906	.781
14	.078	.875	1.031	.906
16	.078	1.000	1.156	1.031
18	.078	1.125	1.281	1.156
20	.078	1.250	1.375	1.250
22	.107	1.375	1.500	1.375
24	.107	1.500	1.625	1.500



All dimensions for reference only.
Weld mounting hermetic receptacle also available.
Consult Amphenol Aerospace for availability and dimensions.

All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

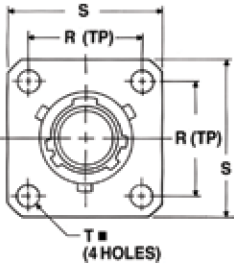
PART # Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN	00	P	22-2	P	A	(XXX)

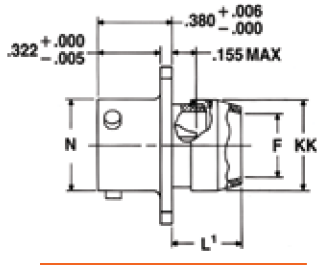
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27334	P	14	A	18	P	A
MS27335	T	14	A	18	P	A

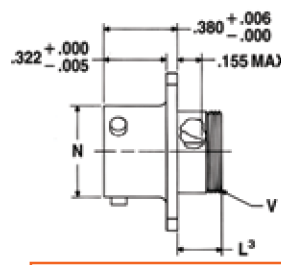
Military qualified to MIL-DTL-27599



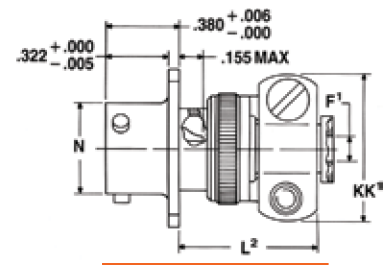
⊕ .005 DIA (M)



*JT00P-XX-XXX (MS27334P)
*JTN00P-XX-XXX



*JT00A-XX-XXX
*JT00C-XX-XXX (MS27334T)
*JTN00A-XX-XXX
*JTN00C-XX-XXX



*JT00A-XX-XXX(SR)
*JTN00A-XX-XXX(SR)
*JTN00C-XX-XXX(SR)

* Standard Junior Tri-Lock

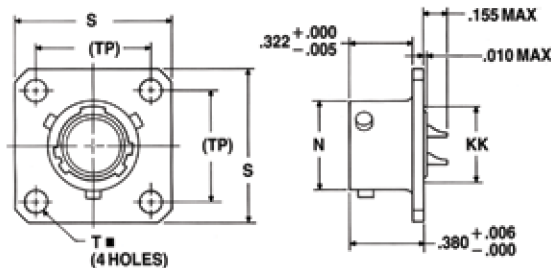
NOTE: For availability of back panel mounting types, consult Amphenol Aerospace.

Shell Size	F Dia. Min.	F' +.010 - .025	L1 Max.	L2 Max.	L3 Max.	N +.001 - .005	R (TP)	S ±.016	T ±.005	VThread Modified		KK Dia. Max.	KK' Max.
										Size Class 2A	Modified Major Dia.		
8	.312	.125	.422	.734	.234	.473	.594	.812	.120	.4375-28UNEF	.421 - .417	.500	.812
10	.429	.188	.422	.734	.234	.590	.719	.938	.120	.5625-24UNEF	.542 - .538	.625	.875
12	.543	.312	.422	.734	.234	.750	.812	1.031	.120	.6875-24UNEF	.667 - .663	.750	1.000
14	.668	.375	.422	.797	.234	.875	.906	1.125	.120	.8125-20UNEF	.791 - .787	.875	1.125
16	.793	.500	.422	.797	.234	1.000	.969	1.219	.120	.9375-20UNEF	.916 - .912	1.000	1.188
18	.894	.625	.422	.797	.234	1.125	1.062	1.312	.120	1.0625-18UNEF	1.034 - 1.030	1.109	1.438
20	1.019	.625	.422	.859	.234	1.250	1.156	1.438	.120	1.1875-18UNEF	1.158 - 1.154	1.234	1.438
22	1.144	.750	.422	.859	.234	1.375	1.250	1.562	.120	1.3125-18UNEF	1.283 - 1.279	1.359	1.625
24	1.269	.800	.422	.922	.313	1.500	1.375	1.688	.147	1.4375-18UNEF	1.408 - 1.404	1.484	1.719

JT02 (MS27335) Series II – Solder

Military qualified to MIL-DTL-27599

Box Mounting Receptacle



*JT02P-XX-XXX
*JT02A-XX-XXX
*JT02C-XX-XXX (MS27335T)
*JTN02P-XX-XXX
*JTN02A-XX-XXX
*JTN02C-XX-XXX

⊕ .005 DIA (M)

* Standard Junior Tri-Lock

NOTE: For availability of back panel mounting types, consult Amphenol Aerospace.

Shell Size	N +.001 - .005	R (TP)	S ±.016	T ±.005	KK Max.
8	.473	.594	.812	.120	.391
10	.590	.719	.938	.120	.508
12	.750	.812	1.031	.120	.622
14	.875	.906	1.125	.120	.749
16	1.000	.969	1.219	.120	.872
18	1.125	1.062	1.312	.120	.976
20	1.250	1.156	1.438	.120	1.101
22	1.375	1.250	1.562	.120	1.226
24	1.500	1.375	1.688	.147	1.351

All dimensions for reference only.

JT06 (MS27336) Series II – Solder Straight Plug

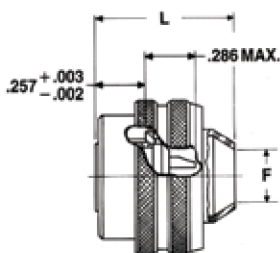
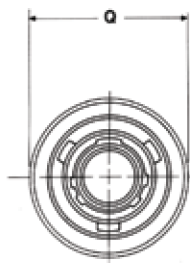
Military qualified to MIL-DTL-27599

PART # Commercial Part number reference. To complete, see how to order pages 62-66.

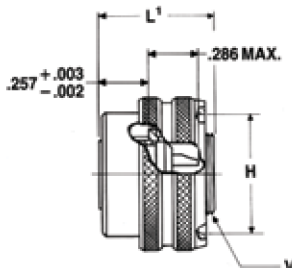
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN/JTG/JTNG	06	A	22-2	P	A	(XXX)

Military

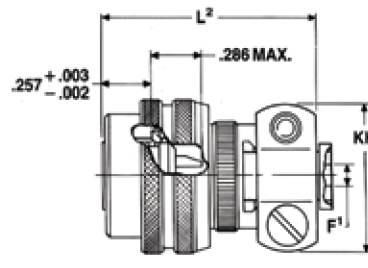
MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27336	P	14	A	18	P	A



*JT06P-XX-XXX (MS27336P)
*JTN06P-XX-XXX



*JT06A-XX-XXX (MS27336T)
*JTN06A-XX-XXX



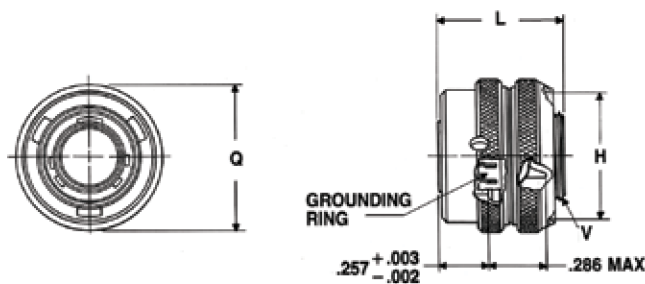
*JT06A-XX-XXX(SR)
*JTN06A-XX-XXX(SR)

*Standard Junior Tri-Lock

Shell Size	F Min.	F ¹ +.010 / -.025	H +.010 / -.001	L Max.	L ¹ Max.	L ² Max.	Q Max.	VThread Modified		KK Max.
								Size Class 2A	Modified Major Dia.	
8	.312	.125	.635	.812	.625	1.109	.734	.4375-28UNEF	.421 - .417	.812
10	.429	.188	.734	.812	.625	1.109	.844	.5625-24UNEF	.542 - .538	.875
12	.543	.312	.870	.812	.625	1.109	1.016	.6875-24UNEF	.667 - .663	1.000
14	.668	.375	.996	.812	.625	1.172	1.141	.8125-20UNEF	.791 - .787	1.125
16	.793	.500	1.122	.828	.625	1.172	1.265	.9375-20UNEF	.916 - .912	1.188
18	.894	.625	1.246	.828	.625	1.172	1.391	1.0625-18UNEF	1.034 - 1.030	1.438
20	1.019	.625	1.372	.828	.625	1.234	1.500	1.1875-18UNEF	1.158 - 1.154	1.438
22	1.144	.750	1.496	.828	.625	1.234	1.625	1.3125-18UNEF	1.283 - 1.279	1.625
24	1.269	.800	1.622	.906	.688	1.297	1.750	1.4375-18UNEF	1.408 - 1.404	1.719

Military qualified to MIL-DTL-27599

JTG06A Series II – Solder Straight Plug (With Grounding Ring)



*JTG06A-XX-XXX
**JTNG06A-XX-XXX

* Plug with grounding fingers
** Coupling nut is clear iridite finish (gold color), shell and grounding fingers are gold plated N₂O₄ resistant.

Shell Size	H Dia. +.010 / -.001	L Max.	Q Dia. Max.	VThread Modified	
				Size Class 2A	Modified Major Dia.
8	.635	.625	.734	.4375-28UNEF	.421 - .417
10	.734	.625	.844	.5625-24UNEF	.542 - .538
12	.870	.625	1.016	.6875-24UNEF	.667 - .663
14	.996	.625	1.141	.8125-20UNEF	.791 - .787
16	1.122	.625	1.265	.9375-20UNEF	.916 - .912
18	1.246	.625	1.391	1.0625-18UNEF	1.034 - 1.030
20	1.372	.625	1.500	1.1875-18UNEF	1.158 - 1.154
22	1.496	.625	1.625	1.3125-18UNEF	1.283 - 1.279
24	1.622	.688	1.750	1.4375-18UNEF	1.408 - 1.404

All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2
83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

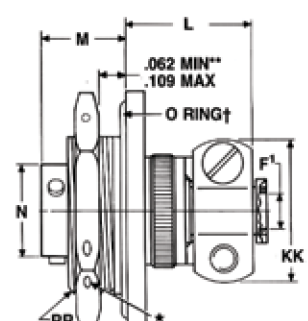
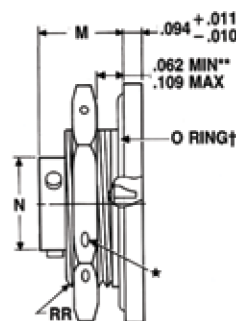
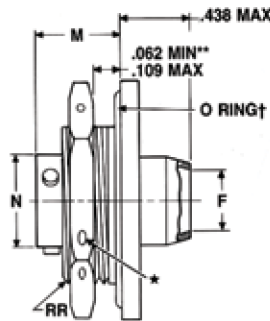
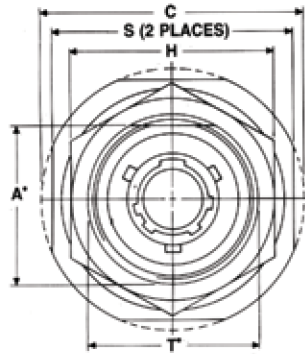
Options
Others

38999

PART # Commercial Part number reference. To complete, see how to order pages 62-66.

Military qualified to MIL-DTL-27599

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
JT/JTN	07	A	22-2	P	A	(XXX)



- * .059 dia. min. 3 lockwire holes
- "D" shaped mounting hole dimensions.
- * Standard Junior Tri-Lock
- ** Panel thickness
- † O Ring not furnished with MS27337

*JT07P-XX-XXX (MS27337P)
*JTN07P-XX-XXX

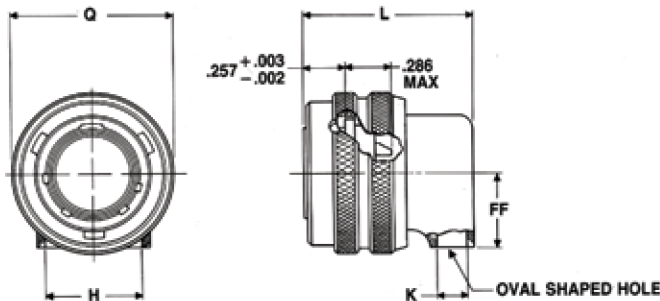
*JT07A-XX-XXX
*JT07C-XX-XXX
*JTN07A-XX-XXX
*JTN07C-XX-XXX

*JT07A-XX-XXX(SR)
*JTN07A-XX-XXX(SR)
*JTN07C-XX-XXX(SR)

Shell Size	A* +.000 -.010	C Max.	F Min.	F1 +.010 -.025	H +.017 -.016	L Max.	M ±.005	N +.001 -.005	S ±.016	T* +.010 -.000	KK Max.	RR Thread Class 2A
8	.830	1.390	.312	.125	1.062	.666	.438	.473	1.250	.884	.812	.8750-20UNEF
10	.955	1.515	.429	.188	1.188	.666	.438	.590	1.375	1.007	.875	1.0000-20UNEF
12	1.084	1.640	.543	.312	1.312	.666	.438	.750	1.500	1.134	1.000	1.1250-18UNEF
14	1.208	1.765	.668	.375	1.438	.729	.438	.875	1.625	1.259	1.125	1.2500-18UNEF
16	1.333	1.953	.793	.500	1.562	.729	.438	1.000	1.781	1.384	1.188	1.3750-18UNEF
18	1.459	2.031	.894	.625	1.688	.729	.438	1.125	1.890	1.507	1.438	1.5000-18UNEF
20	1.576	2.156	1.019	.625	1.812	.765	.464	1.250	2.016	1.634	1.438	1.6250-18UNEF
22	1.701	2.280	1.144	.750	2.000	.765	.464	1.375	2.140	1.759	1.625	1.7500-18UNS
24	1.826	2.405	1.269	.800	2.125	.828	.464	1.500	2.265	1.884	1.719	1.8750-16UN

JT08 Series II – Solder 90° Plug

Military qualified to MIL-DTL-27599



*JT08P-XX-XXX
*JTN08P-XX-XXX

* To complete order number see page 62.

Shell Size	H Min.	K Min.	L Max.	Q Max.	FF Max.
8	.396	.126	.891	.734	.391
10	.532	.141	.906	.844	.438
12	.694	.173	.938	1.016	.516
14	.814	.266	1.031	1.141	.594
16	.985	.423	1.188	1.265	.656
18	1.006	.485	1.250	1.391	.719
20	1.130	.547	1.312	1.500	.781
22	1.255	.610	1.375	1.625	.844
24	1.380	.673	1.516	1.750	.906

All dimensions for reference only.

Amphenol MIL-DTL-38999, Series I, LJT

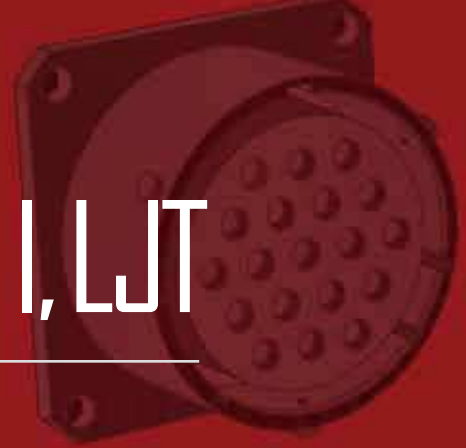


TABLE OF CONTENTS

Combined MIL-DTL-38999 Series I, II, III

s ~~RECEPTACLE~~

~~RECEPTACLE~~

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s ~~RECEPTACLE~~

MIL-DTL-38999, Series II JT and Series I LJT

s ~~RECEPTACLE~~

61

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

LJT Shell Styles:

s ~~RECEPTACLE~~

84

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

86

s ~~RECEPTACLE~~

~~RECEPTACLE~~

87

s ~~RECEPTACLE~~

88

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

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s Accessories continue



MIL-DTL-38999 Series I Typical Markets:

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s ~~RECEPTACLE~~

s)32

Amphenol
Aerospace

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

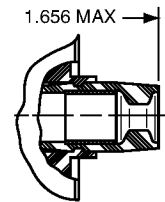
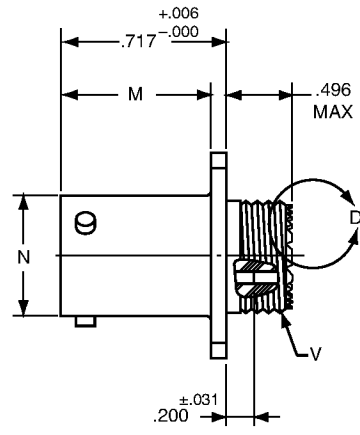
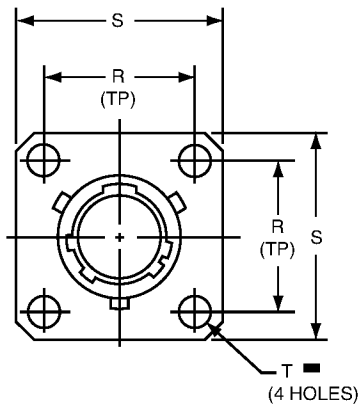
PART # Part number reference. To complete, see how to order pages 62-66.

Commercial

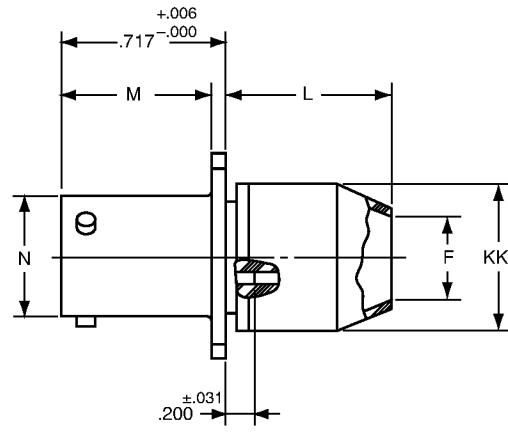
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	00	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27466	E	14	A	18	P	A



LJT00RE-XX-XXX (MS27466E)
LJT00RT-XX-XXX (MS27466T)



LJT00RP-XX-XXX (MS27466P)

⊕ .005 DIA ⊖

Shell Size	F Dia. ±.010	L Max.	M +.000 - .005	N +.001 - .005	R (TP)	S ±.016	T Dia. ±.005	V Thread Class 2A (Plated)	KK Dia. Max
9	.444	.813	.632	.572	.719	.938	.128	.4375-28 UNEF	.608
11	.558	.813	.632	.700	.812	1.031	.128	.5625-24 UNEF	.734
13	.683	.813	.632	.850	.906	1.125	.128	.6875-24 UNEF	.858
15	.808	.813	.632	.975	.969	1.219	.128	.8125-20 UNEF	.984
17	.909	.813	.632	1.100	1.062	1.312	.128	.9375-20 UNEF	1.110
19	1.034	.813	.632	1.207	1.156	1.438	.128	1.0625-18 UNEF	1.234
21	1.159	.906	.602	1.332	1.250	1.562	.128	1.1875-18 UNEF	1.360
23	1.284	.906	.602	1.457	1.375	1.688	.147	1.3125-18 UNEF	1.484
25	1.409	.906	.602	1.582	1.500	1.812	.147	1.4375-18 UNEF	1.610

All dimensions for reference only.

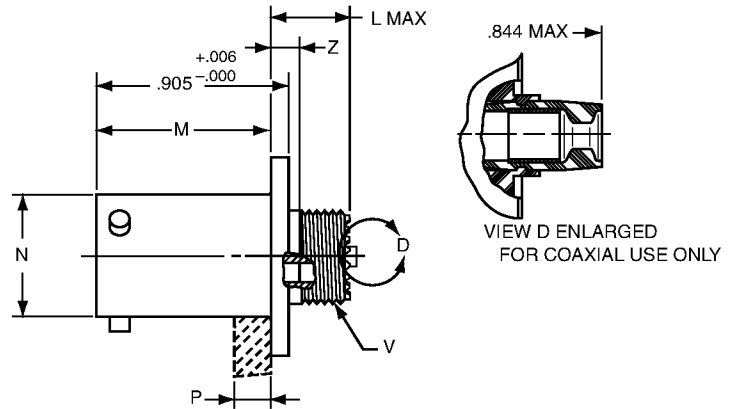
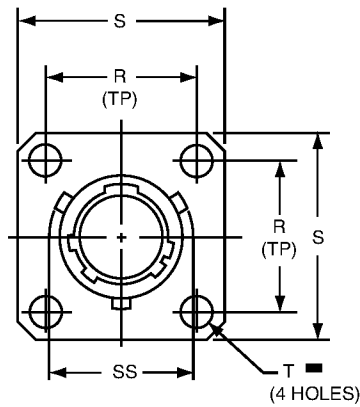
LJTPQ00R (MS27656) Series I – Crimp Wall Mounting Receptacle (Back Panel Mounting)

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

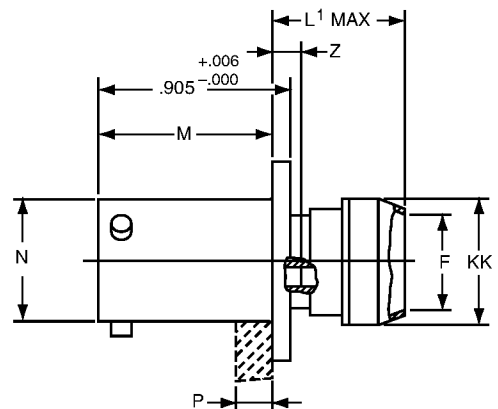
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJTPQ	00	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27656	E	14	A	18	P	A



LJTPQ00RE-XX-XXX (MS27656E)
LJTPQ00RT-XX-XXX (MS27656T)



LJTPQ00RP-XX-XXX (MS27656P)

⊕ .005 DIA M

Shell Size	F Dia. ±.010	L Max.	L' Max.	M +.000 / -.005	N Dia.	P Max. Panel Thickness	R (TP)	S +.011 / -.010	T Dia. ±.005	V Thread Class 2A (Plated)	Z Max	KK Dia. Max	SS Dia. +.000 / -.016
9	.444	.453	.641	.820	.572	.234	.719	.938	.128	.4375-28 UNEF	.138	.625	.662
11	.558	.453	.641	.820	.700	.234	.812	1.031	.128	.5625-24 UNEF	.138	.750	.810
13	.683	.453	.641	.820	.850	.234	.906	1.125	.128	.6875-24 UNEF	.138	.875	.960
15	.808	.453	.641	.820	.975	.234	.969	1.219	.128	.8125-20 UNEF	.138	1.000	1.085
17	.909	.453	.641	.820	1.100	.234	1.062	1.312	.128	.9375-20 UNEF	.138	1.125	1.210
19	1.034	.453	.641	.820	1.207	.234	1.156	1.438	.128	1.0625-18 UNEF	.138	1.250	1.317
21	1.159	.484	.672	.790	1.332	.204	1.250	1.562	.128	1.1875-18 UNEF	.168	1.375	1.442
23	1.284	.484	.672	.790	1.457	.204	1.375	1.688	.147	1.3125-18 UNEF	.168	1.500	1.567
25	1.409	.484	.672	.790	1.582	.193	1.500	1.812	.147	1.4375-18 UNEF	.168	1.625	1.692

All dimensions for reference only.
Note: MS27656 superseded MS 27515.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

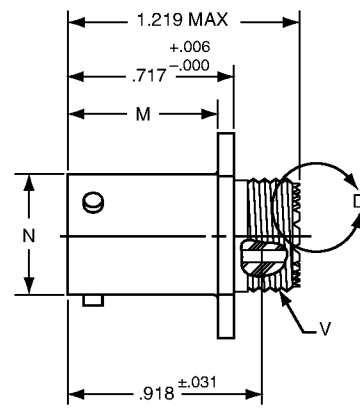
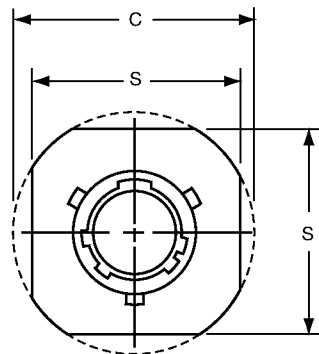
- 5015 Crimp Rear Release Matrix

- 22992 Class I

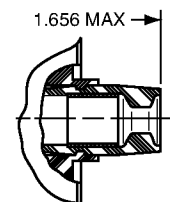
- Back-Shells

- Options Others

PART #		Part number reference. To complete, see how to order pages 62-66.				
Commercial						
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	01	RE	22-2	P	A	(XXX)



LJT01RE-XX-XXX
LJT01RT-XX-XXX



VIEW D ENLARGED FOR COAXIAL USE ONLY

Shell Size	C Max.	M +.000 -.005	N +.001 -.005	S ±.016	V Thread Class 2A (Plated)
9	1.094	.632	.572	.938	.4375-28 UNEF
11	1.188	.632	.700	1.031	.5625-24 UNEF
13	1.281	.632	.850	1.125	.6875-24 UNEF
15	1.375	.632	.975	1.219	.8125-20 UNEF
17	1.469	.632	1.100	1.312	.9375-20 UNEF
19	1.594	.632	1.207	1.438	1.0625-18 UNEF
21	1.719	.602	1.332	1.562	1.1875-18 UNEF
23	1.844	.602	1.457	1.688	1.3125-18 UNEF
25	1.969	.602	1.582	1.812	1.4375-18 UNEF

All dimensions for reference only.

LJT02R (MS27496) – Crimp (Box Mount Recept.)

LJTP02R (MS27505) – Crimp

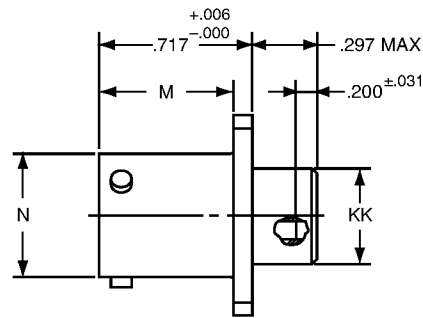
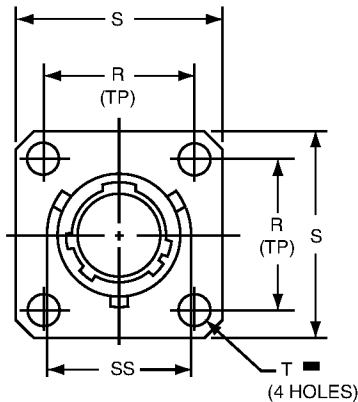
Box Mounting Receptacle (Back Panel Mounting)

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

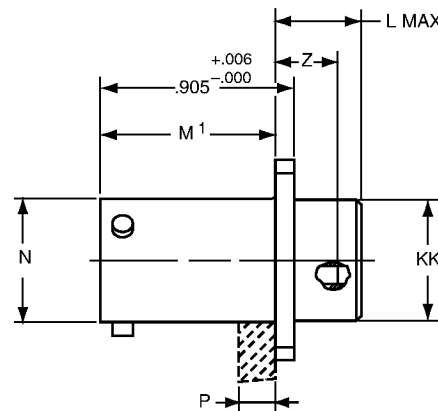
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTP	02	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27496	E	14	A	18	P	A
MS27505	E	14	A	18	P	A



LJT02RE-XX-XXX (MS27496E)



LJTP02RE-XX-XXX (MS27505E)

⊕ .005 DIA Ⓜ

Shell Size	L Max.	M +.000 -.005	M' +.001 -.005	N Dia +.001 -.005	P Max. Panel Thickness	R (TP)	S +.011 -.010	T Dia. ±.005	Z ±.031	KK Dia. +.006 -.005	SS Dia. +.000 -.016
9	.203	.632	.820	.572	.234	.719	.938	.128	.107	.433	.662
11	.203	.632	.820	.700	.234	.812	1.031	.128	.107	.557	.810
13	.203	.632	.820	.850	.234	.906	1.125	.128	.107	.676	.960
15	.203	.632	.820	.975	.234	.969	1.219	.128	.107	.801	1.085
17	.203	.632	.820	1.100	.234	1.062	1.312	.128	.107	.926	1.210
19	.203	.632	.820	1.207	.234	1.156	1.438	.128	.107	1.032	1.317
21	.234	.602	.790	1.332	.204	1.250	1.562	.128	.137	1.157	1.442
23	.234	.602	.790	1.457	.204	1.375	1.688	.147	.137	1.282	1.567
25	.234	.602	.790	1.582	.193	1.500	1.812	.147	.137	1.407	1.692

All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

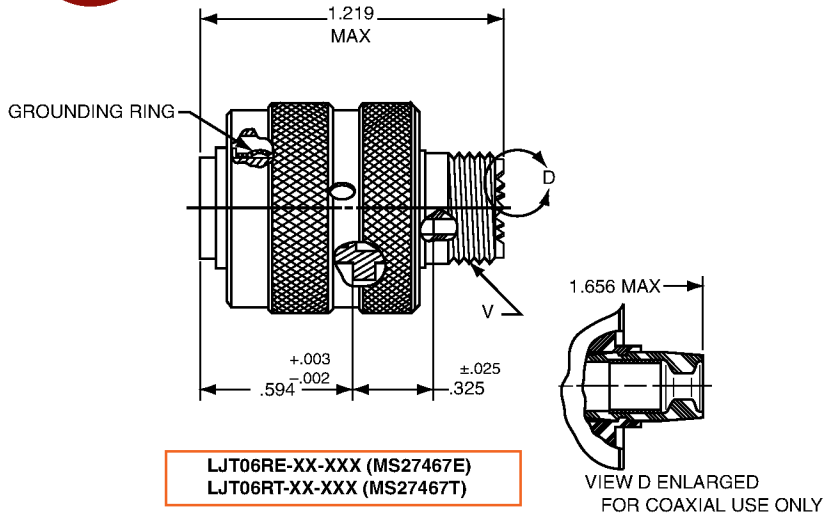
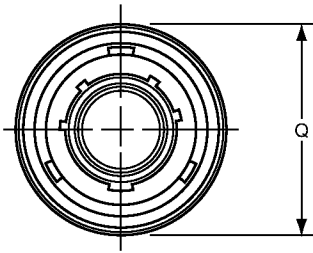
- Options
- Others

PART # Part number reference. To complete, see how to order pages 62-66.

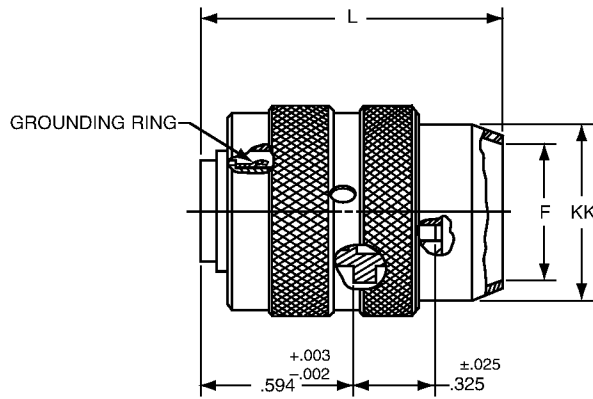
Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	06	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27467	E	14	A	18	P	A



LJT06RE-XX-XXX (MS27467E)
LJT06RT-XX-XXX (MS27467T)



LJT06RP-XX-XXX (MS27467P)

Shell Size	F Dia. ±.010	L Max.	Q Max.	V Thread Class 2A (Plated)	KK Dia. Max.
9	.444	1.531	.844	.4375-28 UNEF	.608
11	.528	1.531	.969	.5625-24 UNEF	.734
13	.683	1.531	1.141	.6875-24 UNEF	.858
15	.808	1.531	1.266	.8125-20 UNEF	.984
17	.909	1.531	1.391	.9375-20 UNEF	1.110
19	1.034	1.531	1.500	1.0625-18 UNEF	1.234
21	1.159	1.625	1.625	1.1875-18 UNEF	1.360
23	1.284	1.625	1.750	1.3125-18 UNEF	1.484
25	1.409	1.625	1.875	1.4375-18 UNEF	1.610

All dimensions for reference only.

LJT07R (MS27468) Series I – Crimp Jam Nut Receptacle

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	07	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27498	E	14	A	18	P	A

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

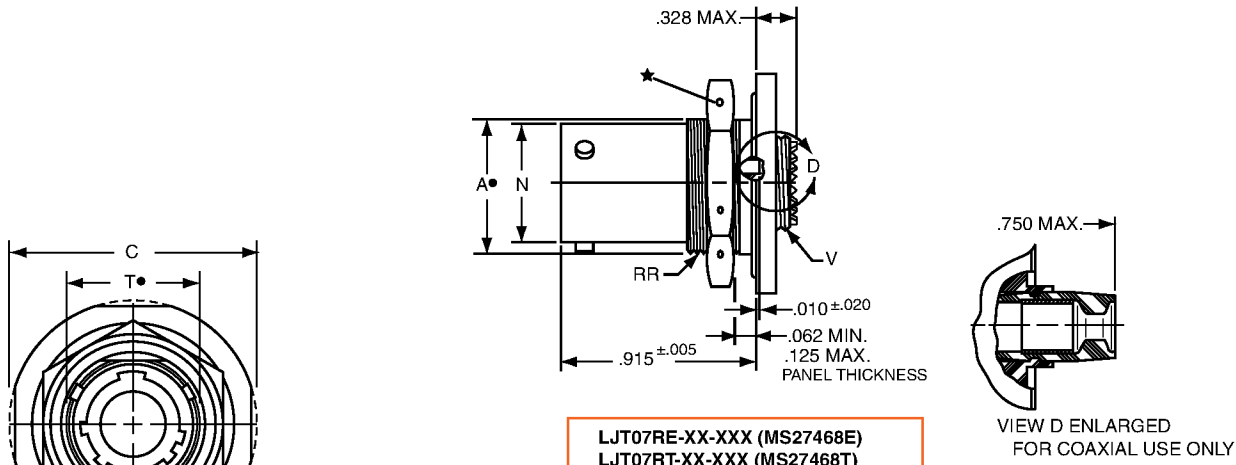
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

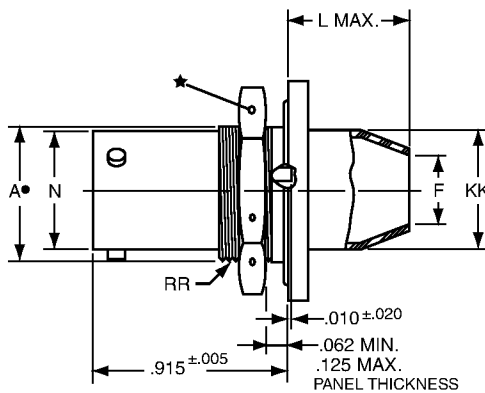
- 22992
- Class 1

- Back-Shell

- Options
- Others



LJT07RE-XX-XXX (MS27468E)
 LJT07RT-XX-XXX (MS27468T)



LJT07RP-XX-XXX (MS27468P)

- ★ .059 Dia. Min. 3 lockwire holes.
 Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.

Shell Size	A* +.000 -.010	C Max.	F Dia. ±.010	H Hex +.017 -.016	L Max.	N +.001 -.005	S ±.016	T* +.010 -.000	V Thread Class 2A (Plated)	KK Dia. Max.	RR Thread Class 2A (Plated)
9	.669	1.199	.444	.875	.625	.572	1.062	.697	.4375-28 UNEF	.608	.6875-24 UNEF
11	.769	1.386	.558	1.000	.625	.700	1.250	.822	.5625-24 UNEF	.734	.8125-20 UNEF
13	.955	1.511	.683	1.188	.625	.850	1.375	1.007	.6875-24 UNEF	.858	1.0000-20 UNEF
15	1.084	1.636	.808	1.312	.625	.975	1.500	1.134	.8125-20 UNEF	.984	1.1250-18 UNEF
17	1.208	1.761	.909	1.438	.625	1.100	1.625	1.259	.9375-20 UNEF	1.110	1.2500-18 UNEF
19	1.333	1.949	1.034	1.562	.656	1.207	1.812	1.384	1.0625-18 UNEF	1.234	1.3750-18 UNEF
21	1.459	2.073	1.159	1.688	.750	1.332	1.938	1.507	1.1875-18 UNEF	1.360	1.5000-18 UNEF
23	1.580	2.199	1.284	1.812	.750	1.457	2.062	1.634	1.3125-18 UNEF	1.484	1.6250-18 UNEF
25	1.709	2.323	1.409	2.000	.750	1.582	2.188	1.759	1.4375-18 UNEF	1.610	1.7500-18 UNS

All dimensions for reference only.

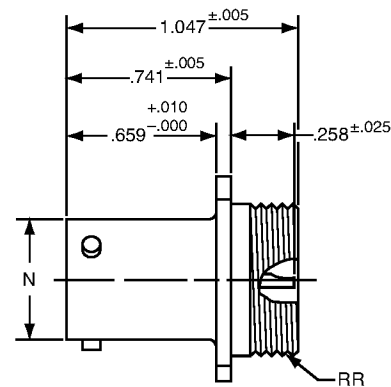
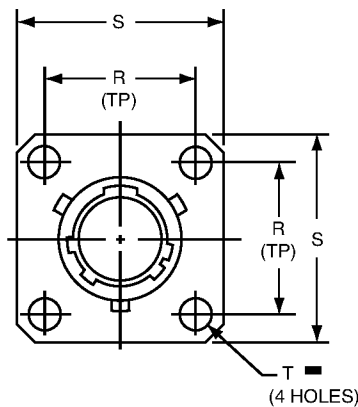
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTS	00	Y	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27469	Y	14	D	18	P	A



- * LJT00H-XX-XXX
- ** LJT00Y-XX-XXX (MS27469YXXD)
- *** LJTS00Y-XX-XXX (MS27469YXXE)

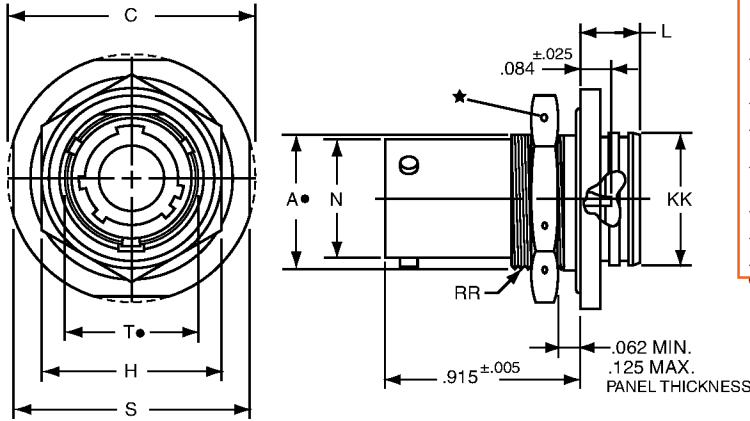
■ ⊕ .005 DIA M

- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. +.001 -.005	R (TP)	S ±.016	T Dia. ±.005	RR Thread Class 2A
9	.572	.719	.938	.128	.6875-24 UNEF
11	.700	.812	1.031	.128	.8125-20 UNEF
13	.850	.906	1.125	.128	.9375-20 UNEF
15	.975	.969	1.219	.128	1.0625-18 UNEF
17	1.100	1.062	1.312	.128	1.1875-18 UNEF
19	1.207	1.156	1.438	.128	1.3125-18 UNEF
21	1.332	1.250	1.562	.128	1.4375-18 UNEF
23	1.457	1.375	1.688	.147	1.5625-18 UNEF
25	1.582	1.500	1.812	.147	1.6875-18 UNEF

All dimensions for reference only.

LJT07 (MS27470) Series I – Hermetic Jam Nut Receptacle



PART #
Commercial

Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT/LJTS	H	RE	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27470	Y	14	A	18	P	A
MS27471	Y	14	A	18	P	A

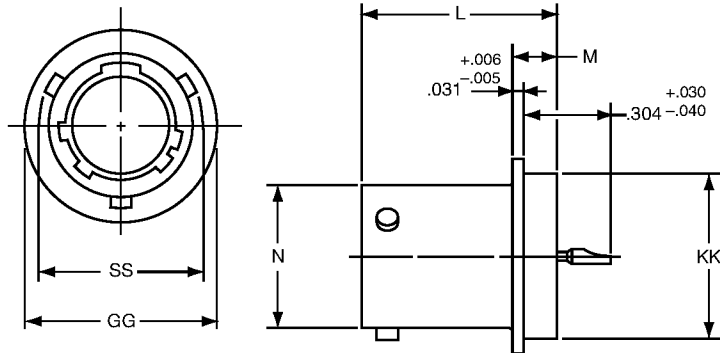
Shell Size	A* +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.000 -.005	S ±.016	T* +.010 -.000	KK +.011 -.000	RR Thread Class 2A (Plated)
9	.669	1.199	.875	.297	.572	1.062	.697	.642	.6875-24 UNEF
11	.769	1.386	1.000	.297	.700	1.250	.822	.766	.8125-20 UNEF
13	.955	1.511	1.188	.297	.850	1.375	1.007	.892	1.0000-20 UNEF
15	1.084	1.636	1.312	.297	.975	1.500	1.134	1.018	1.1250-18 UNEF
17	1.208	1.761	1.438	.297	1.100	1.625	1.259	1.142	1.2500-18 UNEF
19	1.333	1.949	1.562	.328	1.207	1.812	1.384	1.268	1.3750-18 UNEF
21	1.459	2.073	1.688	.328	1.332	1.938	1.507	1.392	1.5000-18 UNEF
23	1.580	2.199	1.812	.328	1.457	2.062	1.634	1.518	1.6250-18 UNEF
25	1.709	2.328	2.000	.328	1.582	2.188	1.759	1.642	1.7500-18 UNS

All dimensions for reference only.

- * LJT07H-XX-XXX
- ** LJT07Y-XX-XXX (MS27470YXXD)
- *** LJTS07Y-XX-XXX (MS27470YXXE)

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- “D” shaped mounting hole dimensions.
- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

LJTI (MS27471) Series I – Hermetic Solder Mounting Receptacle



- * Long Junior Tri-Lock
- ** Interfacial seal wafer
- *** High temperature version, interfacial seal wafer with stainless steel shell

Shell Size	N Dia. +.001 -.005	SS Dia. +.000 -.016	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010	KK Dia. +.001 -.005
9	.572	.662	.789	.125	.750	.672
11	.700	.810	.789	.125	.844	.781
13	.850	.960	.789	.125	.969	.906
15	.975	1.085	.789	.125	1.094	1.031
17	1.100	1.210	.789	.125	1.218	1.156
19	1.207	1.317	.789	.125	1.312	1.250
21	1.332	1.442	.789	.125	1.438	1.375
23	1.457	1.567	.821	.156	1.563	1.500
25	1.582	1.692	.821	.156	1.688	1.625

- * LJTIH-XX-XXX
- ** LJTIY-XX-XXX (MS27471YXXD)
- *** LJTSIY-XX-XXX (MS27471YXXE)

All dimensions for reference only.

Weld mounting hermetic receptacle also available.
Consult Amphenol Aerospace for availability and dimensions.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

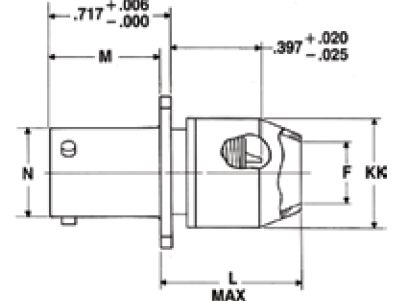
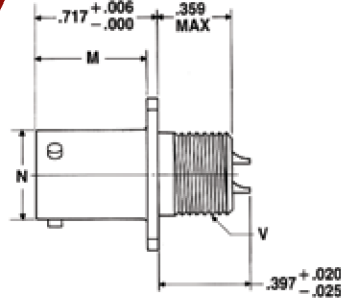
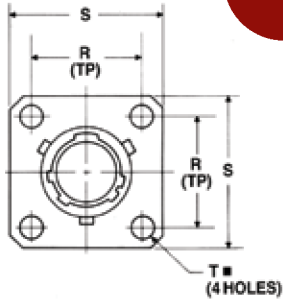
38999
III
HD
Dualok
II
SJT
Accessories
Aquacon
Herm/Seal
PCB

PART # Part number reference. To complete, see how to order pages 62-66.
Commercial

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	00	P	22-2	P	A	(XXX)

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS20026	T	14	A	18	P	A
MS20027	T	14	A	18	P	A

Military qualified to MIL-DTL-27599



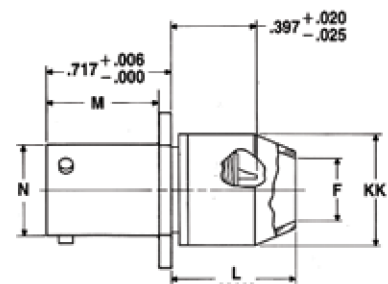
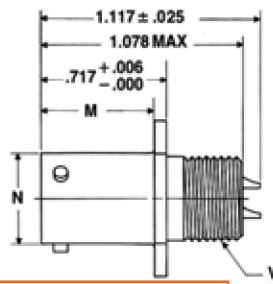
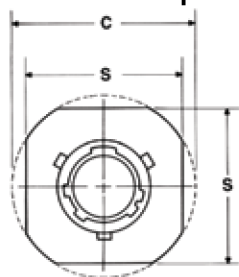
■ ⊕ .005 DIA Ⓜ

NOTE: For availability of back panel mounting types, check with nearest sales office or call Amphenol Aerospace.

Shell Size	F Dia.	L Max.	M +.000 / -.005	N +.001 / -.005	R (TP)	S ±.016	T Dia. ±.005	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	.327	.625	.632	.572	.719	.938	.128	.4375-28	.608
11	.444	.625	.632	.700	.812	1.031	.128	.5625-24	.734
13	.558	.625	.632	.850	.906	1.125	.128	.6875-24	.858
15	.683	.625	.632	.975	.969	1.219	.128	.8125-20	.984
17	.808	.625	.632	1.100	1.062	1.312	.128	.9375-20	1.110
19	.909	.625	.632	1.207	1.156	1.438	.128	1.0625-18	1.234
21	1.034	.703	.602	1.332	1.250	1.562	.128	1.1875-18	1.360
23	1.159	.703	.602	1.457	1.375	1.688	.147	1.3125-18	1.484
25	1.284	.703	.602	1.582	1.500	1.812	.147	1.4375-18	1.610

LJT01 (MS20027) Series I – Solder Line Receptacle

Military qualified to MIL-DTL-27599



LJT01T-XX-XXX (MS20027T)

LJT01P-XX-XXX

Shell Size	C Max.	F Dia.	L Max.	M +.000 / -.005	N +.001 / -.005	S ±.016	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	1.094	.327	.625	.632	.572	.938	.4375-28	.608
11	1.188	.444	.625	.632	.700	1.031	.5625-24	.734
13	1.281	.558	.625	.632	.850	1.125	.6875-24	.858
15	1.375	.683	.625	.632	.975	1.219	.8125-20	.984
17	1.469	.808	.625	.632	1.100	1.312	.9375-20	1.110
19	1.594	.909	.625	.632	1.207	1.438	1.0625-18	1.234
21	1.719	1.034	.703	.602	1.332	1.562	1.1875-18	1.360
23	1.844	1.159	.703	.602	1.457	1.688	1.3125-18	1.484
25	1.969	1.284	.703	.602	1.582	1.812	1.4375-18	1.610

All dimensions for reference only.

LJT06 (MS20028) Series I – Solder Straight Plug

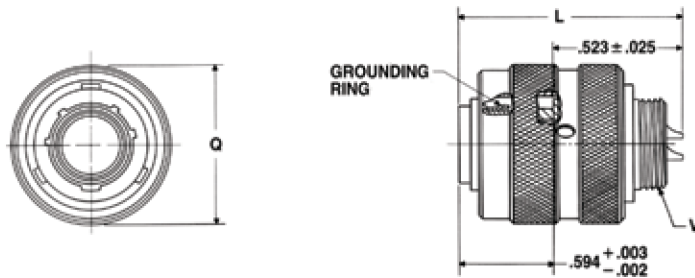
Military qualified to MIL-DTL-27599

PART # Commercial Part number reference. To complete, see how to order pages 62-66.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
LJT	06	T	22-2	P	A	(XXX)

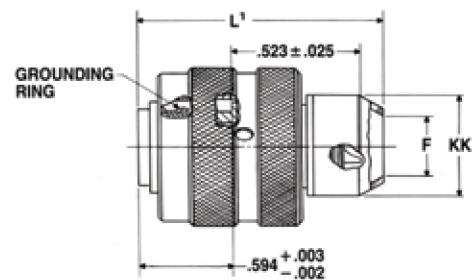
Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS20028	T	14	A	18	P	A
MS20029	T	14	A	18	P	A



LJT06T-XX-XXX (MS20028T)

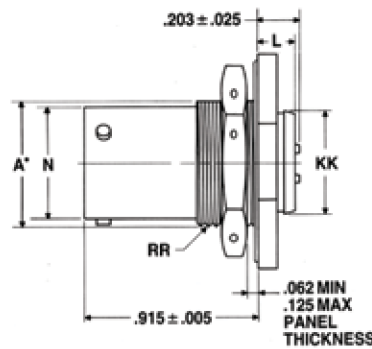
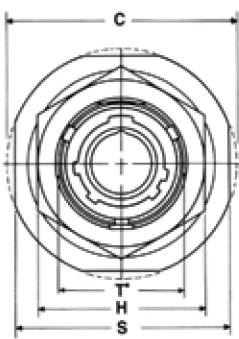
Shell Size	F Dia.	L Max.	L' Max.	Q Max.	VThread Class 2A UNEF (Plated)	KK Dia. Max.
9	.327	1.128	1.488	.844	.4375-28	.608
11	.444	1.128	1.488	.969	.5625-24	.734
13	.558	1.128	1.488	1.141	.6875-24	.858
15	.683	1.128	1.488	1.266	.8125-20	.984
17	.808	1.128	1.488	1.391	.9375-20	1.110
19	.909	1.128	1.488	1.500	1.0625-18	1.234
21	1.034	1.128	1.566	1.625	1.1875-18	1.360
23	1.159	1.128	1.566	1.750	1.3125-18	1.484
25	1.284	1.191	1.644	1.875	1.4375-18	1.610



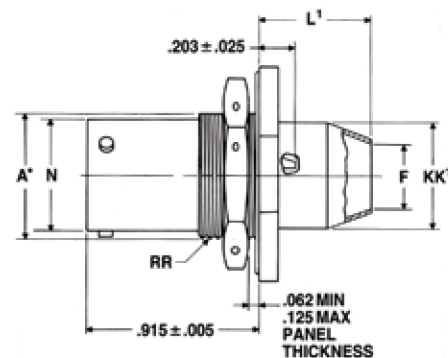
LJT06P-XX-XXX

LJT07 (MS20029) Series I – Solder Jam Nut Receptacle

Military qualified to MIL-DTL-27599



LJT07T-XX-XXX (MS20029T)



LJT07P-XX-XXX (MS20029P)

• “D” shaped mounting hole dimensions

Shell Size	A* +.000 / -.010	C Max.	F Dia.	H Hex +.017 / -.016	L Max.	L' Max.	N +.001 / -.005	S ±.016	T* +.010 / -.000	KK +.011 / -.000	KK' Dia. Max.	RR Thread Class 2A (Plated)
9	.669	1.199	.327	.875	.234	.625	.572	1.062	.697	.516	.608	.6875-24UNEF
11	.769	1.386	.444	1.000	.234	.625	.700	1.250	.822	.642	.734	.8125-20UNEF
13	.955	1.511	.558	1.188	.234	.625	.850	1.375	1.007	.766	.858	1.0000-20UNEF
15	1.084	1.636	.683	1.312	.234	.625	.975	1.500	1.134	.892	.984	1.1250-18UNEF
17	1.208	1.761	.808	1.438	.234	.625	1.100	1.625	1.259	1.018	1.110	1.2500-18UNEF
19	1.333	1.949	.909	1.562	.266	.625	1.207	1.812	1.384	1.142	1.234	1.3750-18UNEF
21	1.459	2.073	1.034	1.688	.266	.656	1.332	1.938	1.507	1.268	1.360	1.5000-18UNEF
23	1.580	2.199	1.159	1.812	.266	.750	1.457	2.062	1.634	1.392	1.484	1.6250-18UNEF
25	1.709	2.323	1.284	2.000	.266	.750	1.582	2.188	1.759	1.518	1.610	1.7500-18UNS

All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

38999

INSERT AVAILABILITY

Shell Size / Insert Arrangement	Service Rating	Total Contacts	Contact Size							
			22D	20	16	12	12 Coax	8 Coax*	8 Twinax	
11-2	I	2			2					
11-35	M	13	13							
11-98	I	6		6						
13-4	I	4			4					
13-8	I	8		8						
13-35	M	22	22							
13-98	I	10		10						
15-5	II	5			5					
15-15	I	15		14	1					
15-18	I	18		18						
15-19	I	19		19						
15-35	M	37	37							
15-97	I	12		8	4					
17-6	I	6				6				
17-8	II	8			8					
17-26	I	26		26						
17-35	M	55	55							
17-99	I	23		21	2					
19-11	II	11			11					
19-32	I	32		32						
19-35	M	66	66							
21-11	I	11				11				
21-16	II	16			16					
21-35	M	79	79							
21-39	I	39		37	2					
21-41	I	41		41						
23-21	II	21			21					
23-35	M	100	100							
23-53	I	53		53						
23-54	M	53	40		9	4				
23-55	I	55		55						
25-4	I	56		48	8					
25-19	I	19				19				
25-20	N	30		10	13		4			3
25-24	I	24			12	12				
25-29	I	29			29					
25-35	M	128	128							
25-43	I	43		23	20					
25-46	I	46		40	4				2*	
25-61	I	61		61						

**TABLE I
INSERT ARRANGEMENT CODE**

Basic Part Number	MIL-DTL-38999 Insert Arrangement
88/91-538808	11-99
06	11-35
07	11-98
10	13-4
11	13-8
13	13-98
14	13-35
18	15-5
22	15-18
19	15-19
20	15-35
27	17-6
28	17-8
29	17-26
30	17-35
31	17-99
37	19-11
39	19-32
40	19-35
47	21-11
48	21-16
49	21-35
50	21-41
51	21-39
57	23-21
58	23-35
59	23-53
60	23-55
66	25-19
74	25-4
67	25-29
68	25-35
69	25-43
70	25-61
71	25-46
72	25-2

**TABLE II
LANYARD LENGTH CODES**

Lanyard Length (in.) ±.250	MS	Commercial Code
4.000		40
4.250		41
4.500		42
4.750		43
5.000		50
5.250		51
5.500		52
5.750		53
6.000	No	60
6.250	Code	61
6.500		62
6.750	Std.	63
7.000	Length	70
7.250	6.250	71
7.500		72
7.750		73
8.000		80
8.250		81
8.500		82
8.750		83
9.000		90
9.250		91
9.500		92
9.750		93

LJT Lanyard Separation Forces

Shell Size	Straight Plug (lbs. max.)	15 Degree Pull (lbs. Max.)
11 13 15	45	55
17 19 21 23 25	90	100

* For RG 180/U and RG 195/U cables only. (Check Amphenol Aerospace, Sidney, NY for other cable applications). For availability of other insert arrangements and accessories consult Amphenol Aerospace.

Series I, LJT Breakaway Fail Safe Lanyard Release Plug How to Order, cont.

HOW TO ORDER - BY MILITARY PART NUMBER FAIL SAFE MS27661

1. MS Number	2. Service Class	3. Shell Size	4. Finish	5. Insert Arrg.	6. Contact Style	7. Alternate Position
MS27661	T	17	B	35	P	A

1. MS27661 Number

MS Number designates MIL-DTL-38999, Series I LJT Lanyard Release Plug

2. Select a Service Class

E	For environmental crimp applications (inactive for new design)
T	For environmental crimp applications with serrations on rear threads of shell

3. Select a Shell Size

MIL-DTL-38999, sizes 11 through 25, see chart on page 94.

4. Select a Finish

B	Designates corrosion resistant olive drab cadmium plated aluminum, 500 hour extended salt spray, EMI shielding effectiveness -50dB @ 10 GHz specification min., 175°C
F	Designates electroless nickel plated aluminum, 48 hour salt spray, EMI shielding effectiveness -65dB @ 10 GHz 500 specification min., 200°C

These are standard finishes. Consult Amphenol Aerospace for variations.

5. Select an Insert Arrangement

MIL-DTL-38999, see insert identification chart on page 94.

6. Select a Contact Style

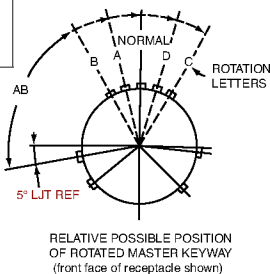
P	Designates Lanyard Release plug with pin contacts
S	Designates Lanyard Release plug with socket contacts

7. Alternate Keying Position

For alternate position of connector (to prevent cross-mating) see LJT key/keyway rotation below. (No letter is required for normal)

LJT Key/Keyway Rotation

Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal	A	B	C	D
9	95°	77°	-	-	113°
11	95°	81°	67°	123°	109°
13	95°	75°	63°	127°	115°
15	95°	74°	61°	129°	116°
17	95°	77°	65°	125°	113°
19	95°	77°	65°	125°	113°
21	95°	77°	65°	125°	113°
23	95°	80°	69°	121°	110°
25	95°	80°	69°	121°	110°



HOW TO ORDER - BY COMMERCIAL PART NUMBER FAIL SAFE 88-5388 OR 91-5388

1. Finish	2. Connector Type Identification	3. Shell Size & Insert Arrangement	4. Lanyard Length Code	5. Contact Type Alternate Rotation of Insert
88	5388	29	40	P

1. Select a Finish

88	Designates corrosion resistant olive drab cadmium plate over nickel, 500 hour extended salt spray, EMI -50dB @ 10 GHz specification min., 175°C
91	Designates electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10 GHz specification min., 48 hour salt spray, 200°C

These are standard finishes. Consult Amphenol Aerospace, Sidney, NY for variations.

2. Connector Type Identification

5388	Designates MIL-DTL-38999, Series I LJT Lanyard Release Plug
-------------	---

3. Select a Shell Size and Insert Arrangement

Shell sizes are MIL-DTL-38999, Series III from sizes 11 thru 25. The basic part number selected specifies the insert arrangement. See Table I (page 94) for coded part number that correlates to insert arrangement.

4. Select a Lanyard Length Code

See Table II (page 94) for lanyard length code number.

5. Select a Contact Type/Alternate Rotation of Insert

P	Designates Lanyard Release plug with pin contacts
S	Designates Lanyard Release plug with socket contacts

When an alternate position of the connector is required to prevent cross-mating, a different letter (other than P or S) is used. See alternate positioning for LJT (to your left), then convert to Amphenol commercial coding by the following chart below.

Pin Contacts		Socket Contacts	
MS Letter	Amphenol Letter	MS Letter	Amphenol Letter
P	P (normal)	S	S (normal)
PA	E	SA	F
PB	R	SB	T
PC	W	SC	X
PD	Y	SD	Z

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

Amphenol LJT Breakaway Fail Safe Connectors provide unequalled performance in environments requiring instant disengagement.

Designed to provide quick disconnect of a connector plug and receptacle with an axial pull on the lanyard, the "Breakaway" Fail Safe connector family offers a wide range of electrical and mechanical features:

- Instant decoupling and damage free separation
- Completely intermateable with standard LJT receptacles
- Inventory support commonality through the use of standard insert arrangements and contacts

Breakaway un-mating is initiated by applying a pull force to the lanyard which causes the operating sleeve on the plug to move away from the receptacle. Coupling segments on the plug then move away from the mating receptacle while expanding, thus releasing the receptacle. After completion of the un-mating sequence, spring compression returns the sleeve and segments to their original positions. Un-mating of the plug may also be accomplished by normal rotation of the coupling ring without affecting the breakaway capability.

The LJT Breakaway Fail Safe connector features which provide EMI EMP shielding in excess of MIL-DTL-38999 Series I requirements:

- Solid metal-to-metal coupling
- EMI grounding fingers
- Conductive finishes

Contact Amphenol Aerospace for more information on breakaway, quick-disconnect connectors. Other Amphenol cylindrical families (MIL-DTL-38999 Series III, MIL-DTL-26482, MIL-DTL-83723) also offer breakaway quick-disconnect connectors.

PART # Part number reference. To complete, see how to order pages 95.

Connector Type	Shell Style	Service Class	Shell Size & Insert Arrg	Contact Type	Alternate Position	Special Variations
88/91	5388	T	22-2	P	A	(XXX)

Military

MS Number	Service Class	Shell Size	Finish	Insert Arrg	Contact Style (P or S)	Alternate Position
MS27661	T	14	A	18	P	A

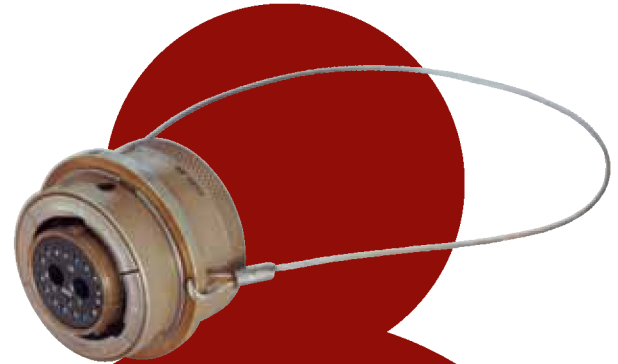
LJT Fail Safe 88-5388/91-5388 (MS27661)

Lanyard Release Plug

* To complete order number see page 95.

Shell Size	A Dia. Max.	B Max.	D Max. Accessory Dia.	L Max.	V Thread UNEF Class 2A (Plated)
11	1.393	1.797	.740	1.703	.5625-24
13	1.558	1.969	.926	1.703	.6875-24
15	1.669	2.078	1.051	1.703	.8125-20
17	1.797	2.203	1.176	1.703	.9375-20
19	1.926	2.323	1.300	1.703	1.0625-18
21	2.054	2.469	1.426	1.703	1.1875-18
23	2.183	2.594	1.551	1.703	1.3125-18
25	2.293	2.703	1.676	1.766	1.4375-18

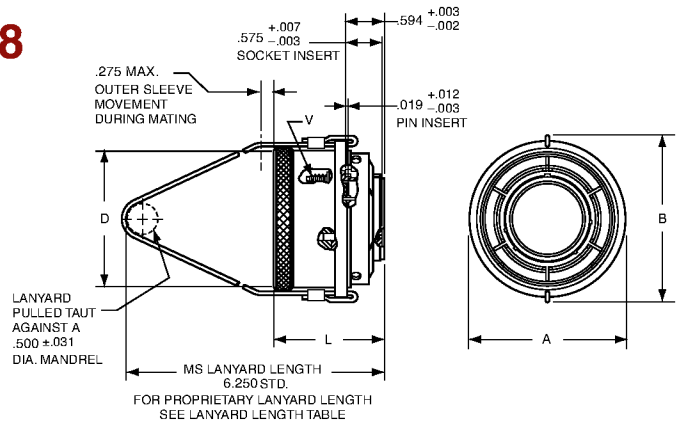
All dimensions for reference only.



LJT Breakaway Fail Safe

In addition to standard Breakaway connectors, Amphenol also manufactures custom breakaway connectors including those with:

- Increased pull-force capability
- Custom lanyard lengths and backshells
- Low force separation capabilities
- Low insertion/separation force contacts
- Non-cadmium finishes
- Custom JT Series Breakaway designs have been developed for special applications; however the LJT Series is recommended over the JT Series for the quick-disconnect breakaway style.



Amphenol SJT Series



TABLE OF CONTENTS

Amphenol SJT Connectors -
Scoop-Proof Design of LJT Series & Standard Mounting Dimensions
of JT Series - Meet European Specification Applications



SJT Shell Styles:

				3*4 24			
				3*4 24			
				3*4 24			
				3*4 9			



SJT Typical Markets:

Amphenol
Aerospace



38999

Amphenol® SJT connectors combine unique design features of the scoop-proof LJT series within standard mounting dimensions of JT types. Available in a wide range of shell sizes, finishes, insert arrangements and accessories.



Components

AMPHENOL
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 AMPHENOL

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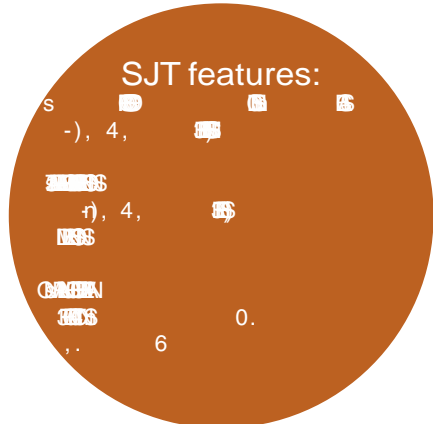
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Contacts

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CONTACT RATING

CIRCUIT	SIGNAL		POWER		CIRCUIT	POWER	
	TYPE	TERMINATION	IMPEDANCE	LOSS		TYPE	TERMINATION
1	1	...	...
2	2	...	...
3	3	...	...
4	4	...	...
5	5	...	...
6	6	...	...
7	7	...	...
8	8	...	...
9	9	...	...
10	10	...	...

SERVICE RATING**

CIRCUIT	SIGNAL		POWER	TEMPERATURE	TEMPERATURE	TEMPERATURE
	TYPE	TERMINATION				
M	2-3	...	62-3	62-3	62-3	62-3
.	...	...	62-3	62-3	62-3	62-3
I	...	...	62-3	62-3	62-3	62-3
II	...	...	62-3	62-3	62-3	62-3

Easy Steps to build a part number... SJT

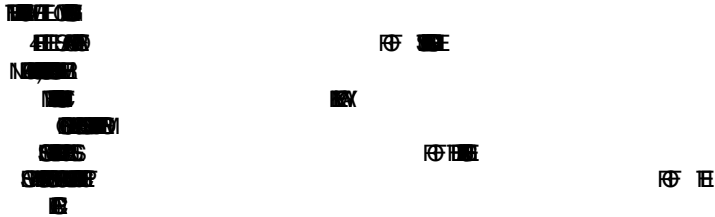
- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Connector Type SJT	Shell Style	Service Class	Shell Size- Insert Arrangement.	Contact Type	Alternate Keying Position	Finish Variations Suffix
SJT	00	RT	18-66	P	A	(XXX)

Step 1. Select a Connector Type

	Designates
SJT	
SJTS	
SJTG	
SJTP	

Step 6. Select an Alternate Keying Position



Key/Keyway Rotation
AB ANGLE OF ROTATION (Degrees)

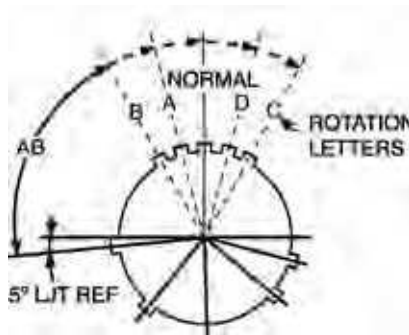
REF	OR	A	B	C	D

Step 2. Select a Shell Style

	Designates
00	
06	
07	
I	

Step 3. Select a Service Class

	Designates
Y	
RT	



RELATIVE POSSIBLE
POSITION OF
ROTATED MASTER
KEYWAY
(front face of
receptacle shown)

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 100. To view Insert Arrangement illustrations see pgs. 10-17.

Step 7. Select a Finish Variation Suffix

FINISH DATA		
		SJT/SJTG
	(005)	
	(011)	
	(014)	
	(023)	
		SJT()Y

Step 5. Select a Contact Type

	DES
P	
S	

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others



38999

- III
- HD
- Dualok
- II
- I
- SJT**
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

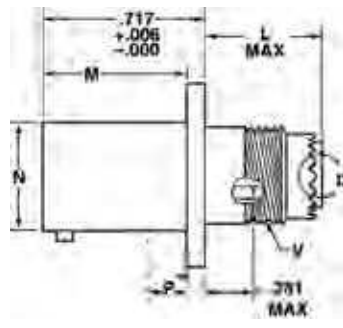
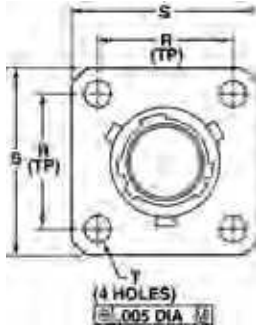
- Back-Shells

- Options
- Others

Shell Size	Crimp	Hermetics* Class Y	Service Rating	Total Contacts	Contact Size									
					22D	22M	22	20	16	12	12 (Coax)	10 (Power)	8 (Coax)	8†† (Twinax)
	X		M											
	X		M											
	X		M											
	X		I											
	X		I											
	◆		I											
	X		I											
	X		M											
	X		M											
	X		I											
	X		I											
	X		M											
	X		M											
	X	X	I											
	X		II											
	X		I											
	X		I											
	X	X	I											
	X	X	M											
	X	X	M											
	X		I											
	◆		M											
	X		I											
	X		M											
	X		M											
	X		M											
	X	X	I											
	X		II											
	X		I											
	X		M											
	X		M											
	X		M											
	X	X	M											
	X		M											
	X		II											
	X	X	M											
	X		I											
	X		M											
	X		M											
	X		I											
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	◆		.											
	X		I											
	◆		.											
	X		I											
	X		I											
	X		M											
	X		I											
	◆		I											
	◆		I											
	X		I										∞	

2
 CABE
 2 OR2 CABE

SJT00RT – Crimp



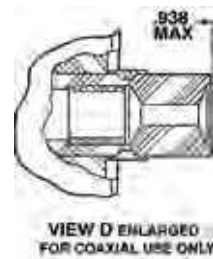
PART # *To complete, see how to order pages 99.

00	RT	X-X	X	X	(XXX)
----	----	-----	---	---	-------

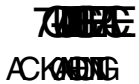
00 00 RT X-X X X (XXX)
 00 00 RT X-X X X (XXX)
 00 00 RT X-X X X (XXX)

Shell Size	L Max	M +.000 / -.005	R (TP)	S ±.016	T ±.005	V Thread Modified		N +.001 / -.005	P** Max
						Class 2A UNEF (Plated)	Modified Major Dia.		
						n			
						n			
						n			
						n			
						n			
						n			
						n			
						n			

SJT00RT

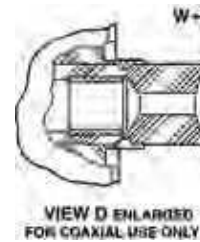
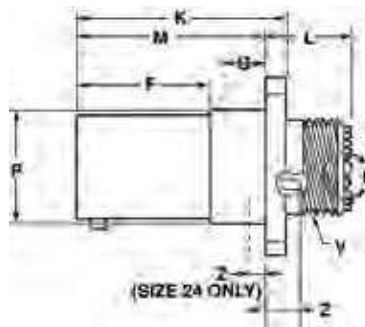
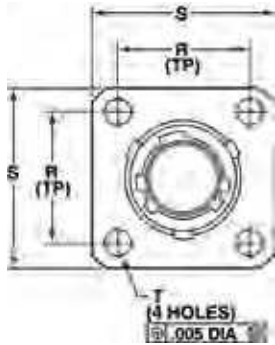


SJTP00RT – Crimp



PART # To complete, see how to order pages 99.

00	RT	X-X	X	X	(XXX)
----	----	-----	---	---	-------



SJTP00RT

Shell Size	F +.000 / -.005	K +.006 / -.000	L Max.	M +.000 / -.005	R (TP)	S +.011 / -.010	T ±.005	Z ±.031	V Thread Class 2A (Plated) UNEF	P Dia. +.001 / -.005	W Max.	G Max.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

Matrix 2 26482

Matrix | Pyle 83723 III

Pyle 26500

Crimp Rear Release Matrix 5015

Class 1 22992

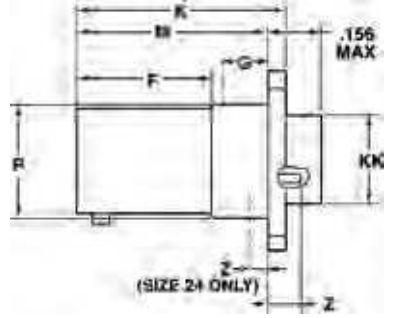
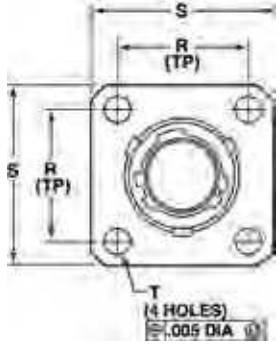
Back-Shells

Options Others

38999

PART # To complete, see how to order pages 99.

02	RE	X-X	X	X	(XXX)
----	----	-----	---	---	-------



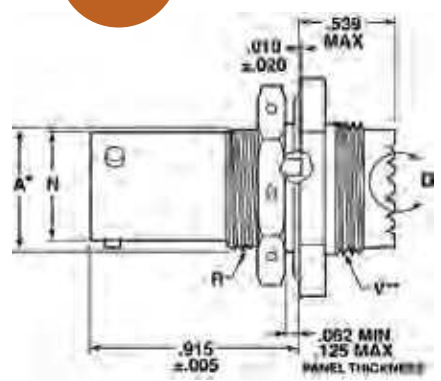
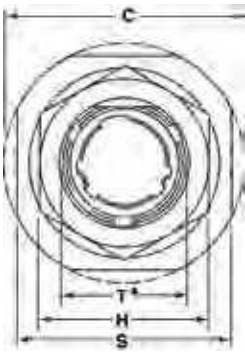
SJTP02RE

Shell Size	F	K	M	R	S	T	Z	P Dia.	KK Dia.	G
	+0.000 -0.005	+0.006 -0.000	+0.000 -0.005	R (TP)	+0.011 -0.010	±0.005	±0.031	+0.001 -0.005	+0.005 -0.002	Max.

PART # To complete, see how to order pages 99.

07	RT	X-X	X	X	(XXX)
----	----	-----	---	---	-------

SJT07RT – Crimp



SJT07RT

S

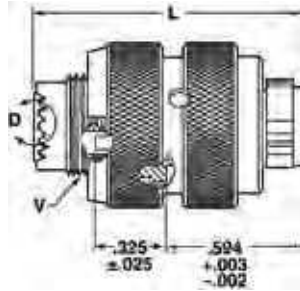
Shell Size	A•	H Hex	S	V Thread Class 2A UNEF (Plated)	R Thread Class 2A UNEF (Plated)	N	C	T•
	+0.000 -0.010	+0.017 -0.016	±0.016			+0.001 -0.005	Max.	+0.010 -0.000

SJT06RT/SJTG06RT – Crimp

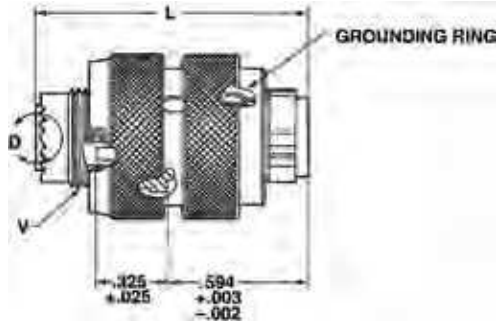
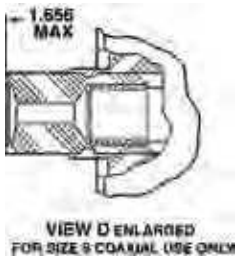


PART # To complete, see how to order pages 99.

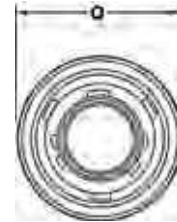
TYPE	SIZE	CONFIG	PLATING	FINISH	REMARKS
SJT	06	RT	X-X	X	X (XXX)
SJTG	06	RT	X-X	X	X (XXX)



SJT06RT



SJTG06RT



Shell Size	L Max	Q Dia. Max.	V Thread	
			Class 2A UNEF (Plated)	Modified Major Dia.
				n
				n
				n
				n
				n
				n
				n
				n

38999

- III
- HD
- Dualok
- II
- I
- SJT**
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix
- 22992 Class 1

Back-Shells

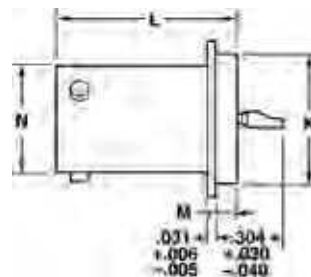
Options Others



38999

PART # To complete, see how to order pages 99.

III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB
III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB
III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB



SJTIY

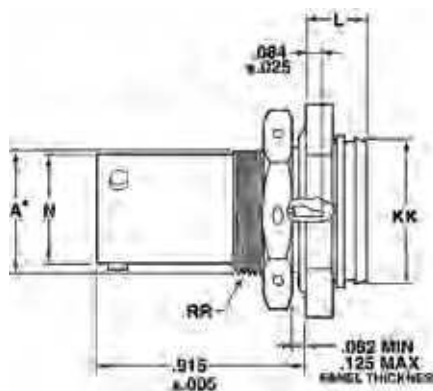
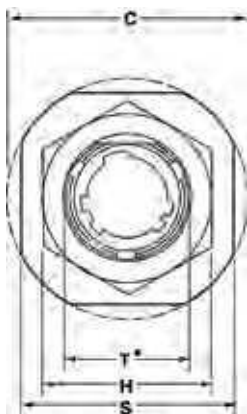
	L	M	G Dia.	K Dia.	N
Shell Size	+0.011	+0.006	+0.011	+0.001	+0.001
	-0.000	-0.005	-0.010	-0.005	-0.005

PART # To complete, see how to order pages 99..

III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB
III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB
III	HD	Dualok	II	I	SJT	Accessories	Aquacon	Herm/Seal	PCB

SJT07Y – Hermetic

MIL-STD-883C



SJT07Y

	N	C	A*	L	H Hex	S	KK	RR Thread Class 2A UNEF (Plated)	T*
Shell Size	+0.001	Max.	+0.000	Max.	+0.017	±0.016	+0.011		+0.010
	-0.005		-0.010		-0.016		-0.000		-0.000

Amphenol Accessories and Tools for MIL-DTL-38999 Series III, II, I and SJT

TABLE OF CONTENTS

Accessories for MIL-DTL-38999 Connectors

s MIL-DTL-38999 Backshells (Refers to Backshell Section from Amphenol PCD)	106
s Protection Caps for Series III	107, 108
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Amphenol
Aerospace

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

Amphenol offers a full range of accessories that are designed to enhance the performance of Amphenol 38999 connectors, both military and non-military.

Backshells are an integral part of any circular connector when it comes to reliable cable connections. Amphenol divisions team up globally to provide a very large assortment of backshells for use with 38999 Series of connectors, as well as other circular series.

SEE LISTING FOR PARTS AND PRICING

The section of this catalog called "Backshells" covers the backshell and adapters that are provided through

SEE LISTING FOR PARTS AND PRICING

SEE LISTING FOR PARTS AND PRICING



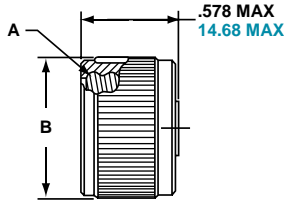
The variety of types of backshells and adapters covered in the

SEE LISTING FOR PARTS AND PRICING

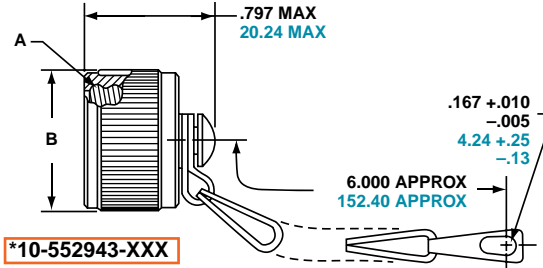
SEE LISTING FOR PARTS AND PRICING

SEE LISTING FOR PARTS AND PRICING

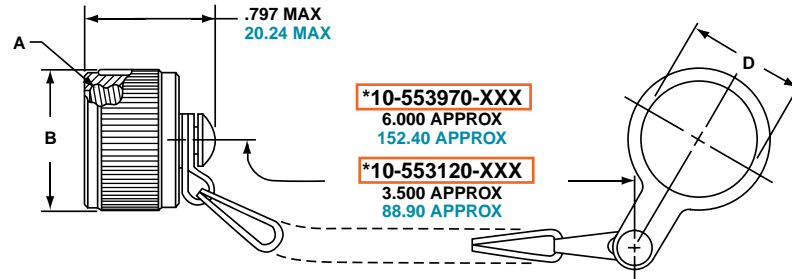
MIL-DTL-38999, Series III TV Receptacle Protection Cap



***10-553310-XXX**



***10-552943-XXX**



***10-553970-XXX**
6.000 APPROX
152.40 APPROX

***10-553120-XXX**
3.500 APPROX
88.90 APPROX

base, **10-552943-119**

Shell Size	A Thread Class 2B 0.1P-0.3L-TS	B Dia. Max.	D Dia. +.010 - .000
9			
11			
13			
15			
17			
19			
21			
23			
25			

Shell Size	MS Shell Size Code	IA -AX	IA n
9	A		
11	B		
13	C		
15	D		
17	E		
19	F		
21	G		
23	H		
25	J		

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Consult Amphenol Aerospace for availability

TV Series III

MS METAL PROTECTION CAPS

Shell Size	MS Shell Size Code	MS Receptacle Protection Cap
9	A	7 8
11	B	7 8
13	C	7 8
15	D	7 8
17	E	7 8
19	F	7 8
21	G	7 8
23	H	7 8
25	J	7 8

R - designates eyelet type

TV Series III PLASTIC PROTECTION CAPS

Shell Size	Receptacle
9	10-70500-10
11	10-70500-12
13	10-70500-14
15	10-70500-16
17	10-70500-19
19	10-70500-20
21	10-70500-22
23	10-70500-24
25	10-70524-1

Consult Amphenol Aerospace for more detailed information on ordering

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient
Matrix 2
26482
Matrix | Pyle
83723 III

Pyle
26500

Crimp Rear Release Matrix
5015

Class 1
22992

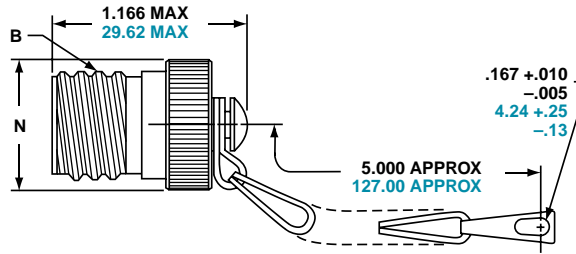
Back-Shell's

Options
Others

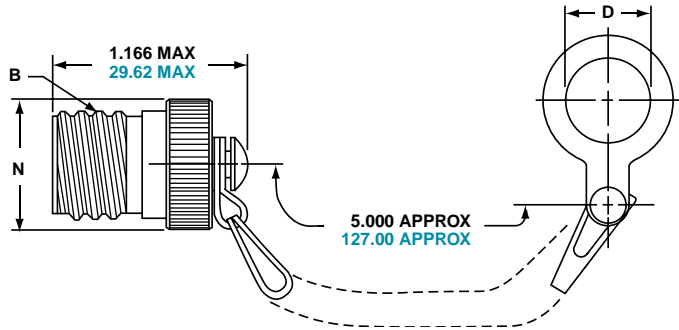
38999



*10-552944-XXX



*10-553998-XXX



base, 10-552944-119

Inches				Millimeters			
Shell Size	A Thread Class 2B 0.1P-0.3L-TS	D Dia. +.010 -.000	N Dia. Max.	Shell Size	MS Shell Size Code	IA n	.IA .AX
9				9	A		
11				11	B		
13				13	C		
15				15	D		
17				17	E		
19				19	F		
21				21	G		
23				23	H		
25				25	J		

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel base	-XX9
Electroless Nickel	-XXG

Consult Amphenol Aerospace for availability

TV Series III

MS METAL PROTECTION CAPS

Shell Size	MS Shell Size Code	MS Plug Protection Cap
9	A	7 8
11	B	7 8
13	C	7 8
15	D	7 8
17	E	7 8
19	F	7 8
21	G	7 8
23	H	7 8
25	J	7 8

R - designates eyelet type



Consult Amphenol Aerospace for more detailed information on ordering

TV Series III PLASTIC PROTECTION CAPS

Shell Size	Plug
9	10-70506-14
11	10-70506-16
13	10-70500-18
15	10-70500-20
17	10-70500-22
19	10-70500-24
21	10-70524-1
23	10-70506-28
25	10-70500-28

MIL-DTL-38999, Series III TV Dummy Receptacle

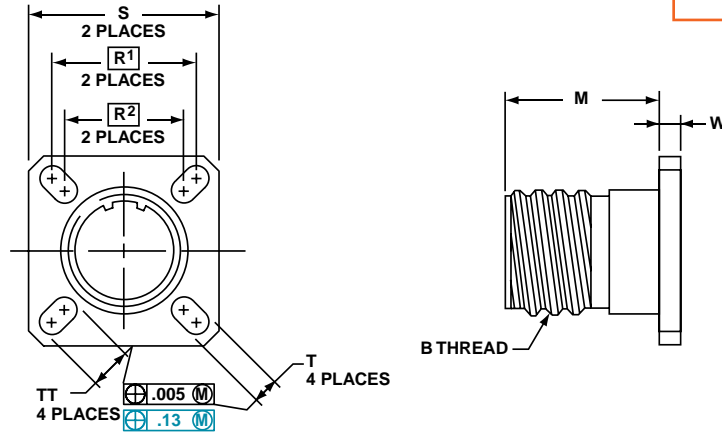


38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Part number reference.
See note below to complete.

* 10-553974-XXX



base, 10-553974-119

Inches

Shell Size	MS Shell Size Coded	B Thread 0.1P-0.3L-TS (Plated)	M +.020 - .000	R ¹	R ²	S ±.010	T ±.008 - .006	W ±.010	TT ±.008 - .006
9	A								
11	B								
13	C								
15	D								
17	E								
19	F								
21	G								
23	H								
25	J								

Finish	10-No Suffix
Olive Drab, Cadmium, Nickel Base	-XX9
Electroless Nickel	-XXG

Millimeters

Shell Size	MS Shell Size Coded	M n	R ¹	R ²	S	T n	7	TT n
9	A							
11	B							
13	C							
15	D							
17	E							
19	F							
21	G							
23	H							
25	J							

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

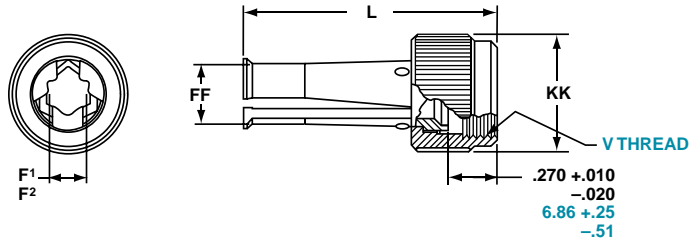
Options Others

38999

Series III TV

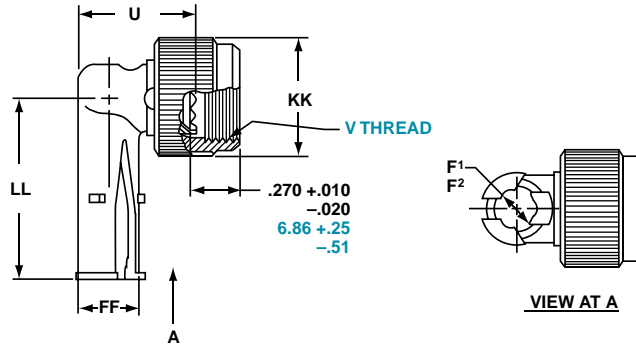
Straight Style

*10-552681-XXX metal coupling



90 Degree Elbow Style

*10-552682-XXX metal coupling



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

Inches

Shell Size	MS Shell Size Code	F ¹ Min. Dia. Cable	F ² Max. Dia. Cable	L Max.	U Max.	FF Dia. Max.	KK Dia. Max.	LL Max.
9	A							
11	B							
13	C							
15	D							
17	E							
19	F							
21	G							
23	H							
25	J							

Finish	10-No Suffix
Olive Drab, Cadmium Nickel Base	-XX9
Electroless Nickel	-XXG

Millimeters

Shell Size	MS Shell Size Code	F ¹ N/A Cable	F ² -AX/A Cable	AX	5-AX	Metric	IA -AX	+IA -AX	-AX
9	A					M12X1-6H			
11	B					M15X1-6H			
13	C					M18X1-6H			
15	D					M22X1-6H			
17	E					M25X1-6H			
19	F					M28X1-6H			
21	G					M31X1-6H			
23	H					M34X1-6H			
25	J					M37X1-6H			



Amphenol offers a full range of accessories that are designed to enhance the performance of Amphenol Breakaway connectors.

Low Profile Backshells in shell size 25 with the following features:

NEW DESIGN

STRENGTH

WEIGHT

FUNCTIONALITY

REPAIR

harness assembly and repairability

REPAIR

10-640000-XXX



Backshells are offered for use with Breakaway Fail Safe Connectors in three heights.

Dummy Contacts

SIZE

TYPE

unused contact cavities

SIZE

0

SIZE

0

Wire Combs

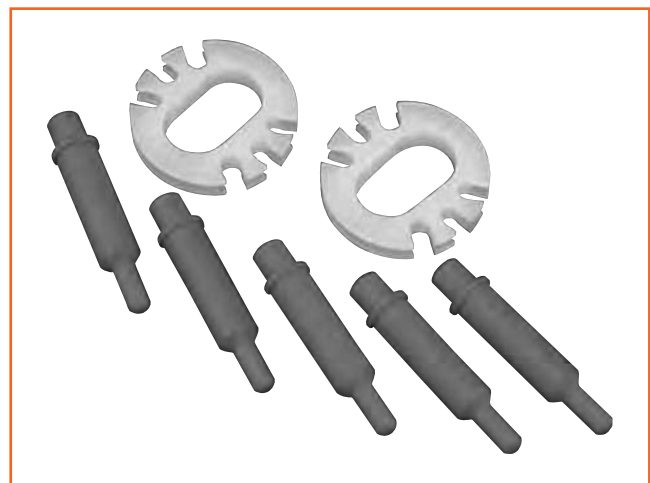
SIZE

stabilize and prevent contact side loading

SIZE

888

SIZE



Accessory products for Breakaway Connectors: Dummy Contacts and Wire Combs

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

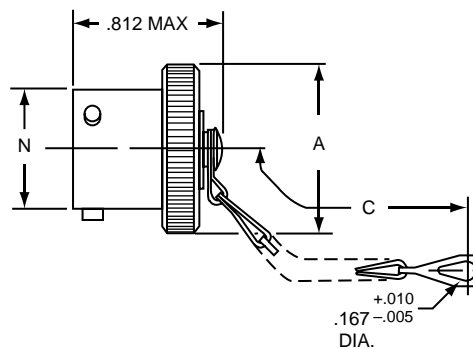
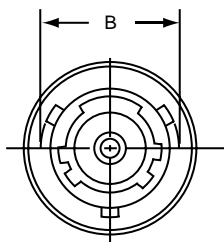
22992
Class 1

Back-Shell

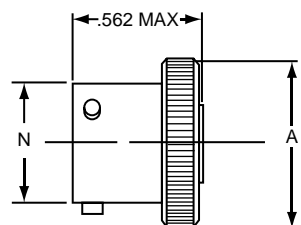
Options
Others

38999

Series II JT



* 10-547138-XXX (MS27510XXXC)



* 10-241853-XXX (MS27510XXXA)

For MS stamping identification, accessories must be ordered by MS part number. If ordered by 10- part number, they will be stamped with said number.

MS
MS
MS

-3 OR -3

Shell Size	A Dia. Max.	A' Dia. Max.	B +.000 - .016	C Approx.	N Dia. +.001 - .005
8					
10					
12					
14					
16					
18					
20					
22					
24					

Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate Treat	-XX0		
Anodic Coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel Base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

Series II JT PLASTIC PROTECTION CAPS

Shell Size	Plug
8	10-70500-10
9	10-70506-14
10	10-70506-14
11	10-70506-16
12	10-70506-16
13	10-70506-18
14	10-70506-18
15	10-70506-20
16	10-70506-20
17	10-70506-22
18	10-70506-22
19	10-70506-24
20	10-70506-24
21	10-70576-24
22	10-70576-24
23	10-70506-28
24	10-70506-28
25	10-558651-25

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

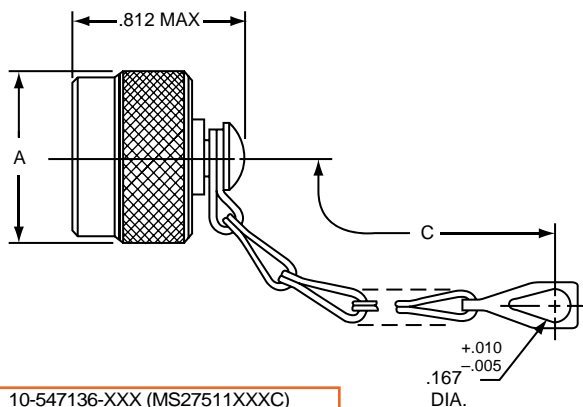
22992
Class 1

Back-Shells

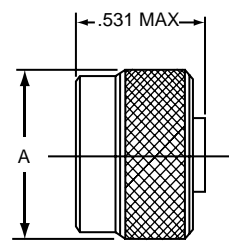
Options
Others

Series II JT

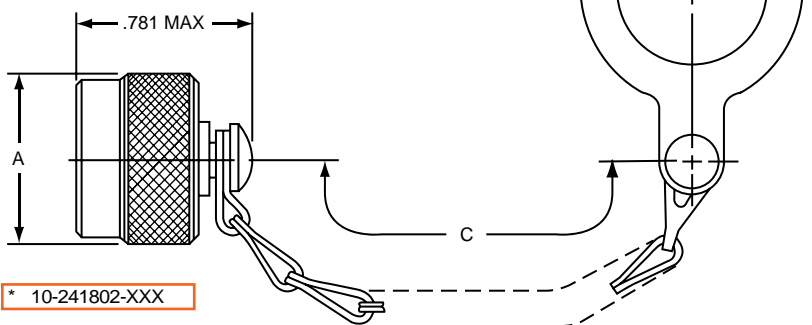
38999



* 10-547136-XXX (MS27511XXXC)



* 10-241856-XXX (MS27511XXXA)



* 10-241802-XXX

For MS stamping identification, accessories must be ordered by MS part number. If ordered by 10- part number, they will be stamped with said number.

* To complete order number, add shell

MS27511
MS27511A
MS27511A10A

10-241802-107, MS27511A10C, MS27511A10A

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shells

Options Others

Shell Size	A Dia. Max.	C Approx.	D +.010 - .000
8			
10			
12		o	
14			
16			
18			
20			
22			
24			

o FOR -3

Series II JT PLASTIC PROTECTION CAPS

Shell Size	Receptacle
8	10-70506-10S
9	10-70500-10
10	10-70506-12
11	10-70500-12
12	10-70506-14
13	10-70500-14
14	10-70506-16
15	10-70500-16
16	10-70506-18
17	10-70500-18
18	10-70506-20
19	10-70500-20
20	10-70506-22
21	10-70500-22
22	10-70506-24
23	10-70500-24
24	10-70576-24
25	10-70506-28

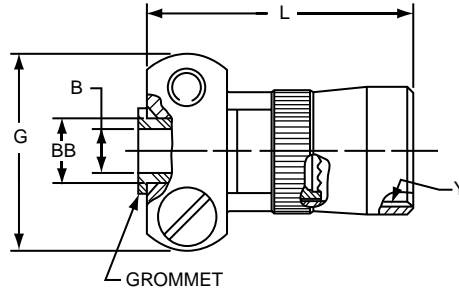
Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate Treat	-XX0		
Anodic Coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel Base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

Strain Relief (Crimp Type)

38999

Series II JT

Series I LJT



* 10-405982-XXX (MS27506XXX-2 reference M85049/49)

For MS stamping identification, accessories must be ordered by MS part number.
If ordered by 10-part number, they will be stamped with said number.

Finish	10-Number Suffix	MS27506 Suffix	M85049/49 Suffix
Chromate Treat	-XX0		NA
Anodic Coating	-XX5	CXX-2	(-2-XXA)
Cadmium Plate Nickel Base	-XX7	AXX-2	NA
Olive drab, Cadmium, Nickel base	-XX9	BXX-2	887
Electroless Nickel	-XXG	FXX-2	(-2-XXN)

OR - 7

Shell Size	B Dia. +.010 -.025	G Max.	L Max.	Y Thread (Modified)		BB Dia. +.000 -.011	Screw Size
				Size Class 2B	Modified Minor Dia.		
8				5.	n		6-32UNC
10				5.	n		6-32UNC
12				5.	n		6-32UNC
14				5.	n		6-32UNC
16				5.	n		6-32UNC
18				5.	n		8-32UNC
20				5.	n		8-32UNC
22				5.	n		8-32UNC
24				5.	n		8-32UNC

OR CLAMP CONSUMER ENDFOSPACE

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

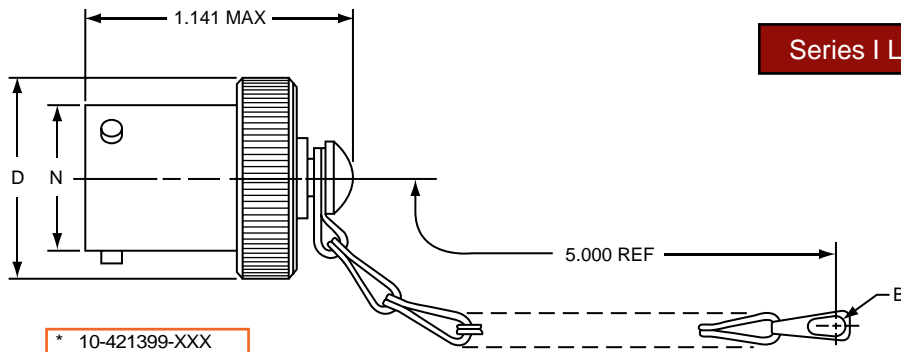
5015
Crimp Rear Release Matrix

22992
Class I

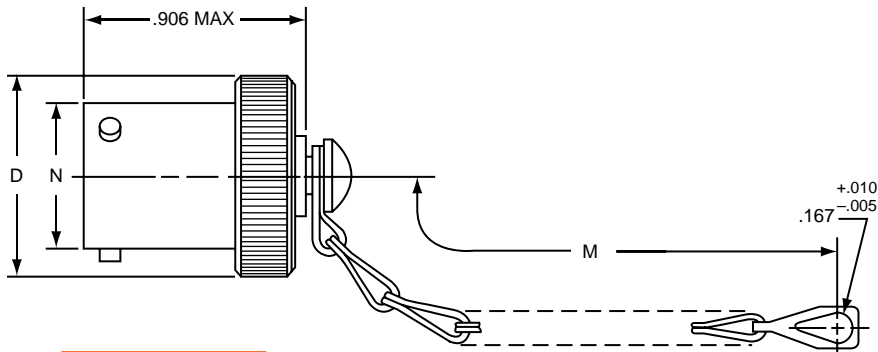
Back-Shell's

Options
Others

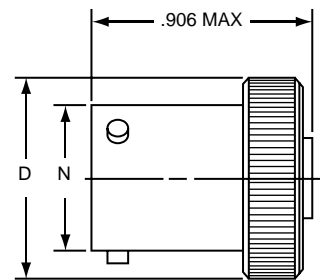
Series I LJT



* 10-421399-XXX



* (MS27501XXXC)



* 10-275196-XXX (MS27501XXXA)

SHOULD BE -3 -3

Shell Size	B Dia. Ref	D Dia. Max.	M ±.250	N Dia. +.001 - .005
9				
11				
13				
15				
17				
19				
21				
23				
25				

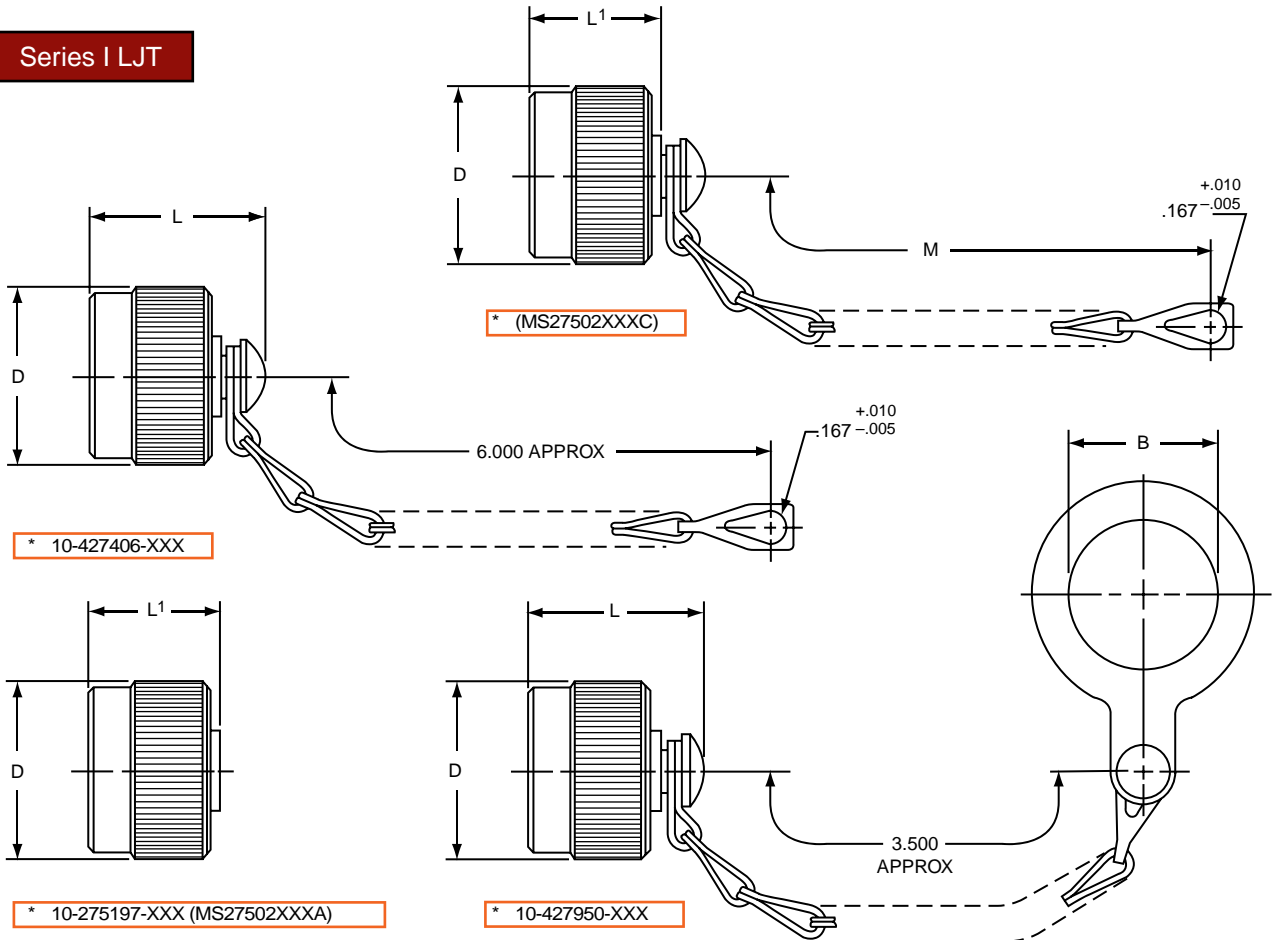
**Series I LJT
PLASTIC PROTECTION CAPS**

Shell Size	Plug
8	10-70500-10
9	10-70506-14
10	10-70506-14
11	10-70506-16
12	10-70506-16
13	10-70506-18
14	10-70506-18
15	10-70506-20
16	10-70506-20
17	10-70506-22
18	10-70506-22
19	10-70506-24
20	10-70506-24
21	10-70576-24
22	10-70576-24
23	10-70506-28
24	10-70506-28
25	10-558651-25

Finish	10- Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate Treat	-XX0		
Anodic Coating	-XX5		
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel Base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

38999

Series I LJT



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class L

- Back-Shells

- Options
- Others

SHOULD BE

Shell Size	B Dia. +.010 -0.000	D Dia. Max.	L Max.	L ¹ Max	M ±.250
9					
11					
13					
15					
17					
19					
21					
23					
25					

Finish	10-Number Suffix	MS Number Suffix with chain	MS Number Suffix without chain
Chromate Treat	-XX0		
Anodic Coating	-XX5	CXXC	CXXA
Cadmium Plate Nickel Base	-XX7	AXXC	AXXA
Olive Drab, Cadmium, Nickel Base	-XX9	BXXC	BXXA
Electroless Nickel	-XXG	FXXC	FXXA

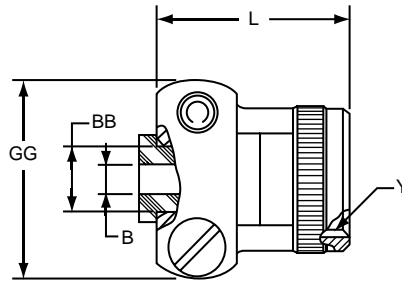
Series I LJT
PLASTIC PROTECTION CAPS

Shell Size	Receptacle
8	10-70506-10S
9	10-70500-10
10	10-70506-12
11	10-70500-12
12	10-70506-14
13	10-70500-14
14	10-70506-16
15	10-70500-16
16	10-70506-18
17	10-70500-18
18	10-70506-20
19	10-70500-20
20	10-70506-22
21	10-70500-22
22	10-70506-24
23	10-70500-24
24	10-70576-24
25	10-70506-28

MIL-DTL-38999, Series I LJT Strain Relief (Solder Type)

Series I LJT

38999



* 10-436792-XXX

For military type cable clamp see MS27506 or M85049/49 on page 114.

FINISH

Finish	10-Number Suffix
Chromate treat	-XX0
Anodic coating	-XX5
Cadmium Plate Nickel Base	-XX7
Olive Drab, Cadmium, Nickel Base	-XX9
Electroless Nickel	-XXG

SIZE

SHOULD BE



Shell Size	B Dia. +.010 -.025	L Max.	Y Thread Class 2B (Plated)	GG Max.	BB Dia. +.000 -.011
9			5.		
11			5.		
13			5.		
15			5.		
17			5.		
19			5.		
21			5.		
23			5.		
25			5.		

SIZE

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

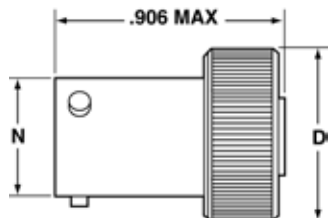
Back-
Shells

Options
Others

38999

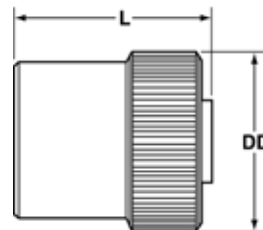
SJT

PLUG PROTECTION CAP

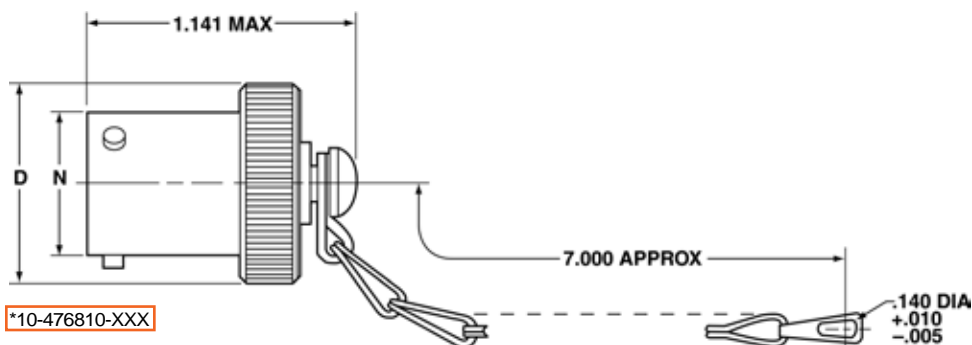


*10-476801-XXX

RECEPTACLE PROTECTION CAP



*10-325943-XXX



*10-476810-XXX

* To complete order number, add shell size and ~~SUFFIX~~

~~CODE~~

Plug Shell Size	D Dia. Max.	N Dia. +.001 - .005
8		
10		
12		
14		
16		
18		
20		
22		
24		

All dimensions for reference only

* To complete order number, add shell size and ~~SUFFIX~~

~~CODE~~

Receptacle Shell Size	DD Dia. Max.	L Max.
8		
10		
12		
14		
16		
18		
20		
22		
24		

SJT

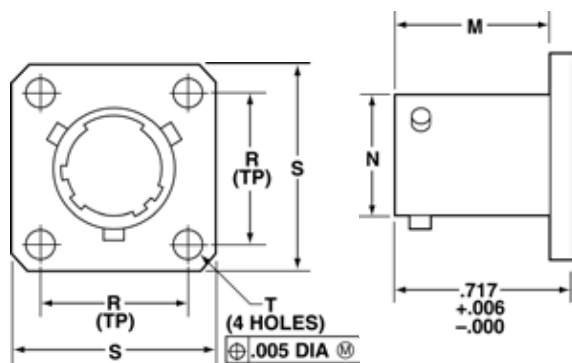
PLASTIC PROTECTION CAPS

Protection Cap Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

Shell Size	Plug	Receptacle
8	10-70500-10	10-70506-10S
10	10-70500-14	10-70506-12
12	10-70500-16	10-70506-14
14	10-70500-18	10-70506-16
16	10-70500-20	10-70506-18
18	10-70500-22	10-70506-20
20	10-70500-24	10-70506-22
22	10-70524-1	10-70506-24
24	10-70506-28	10-70524-1

SJT

DUMMY RECEPTACLE



*10-476807-XXX

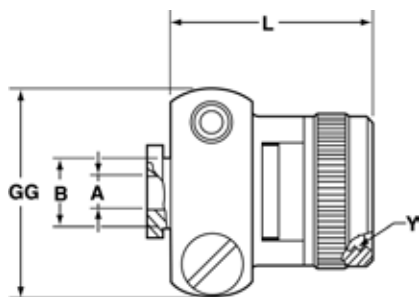
Dummy Receptacle Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

REVISION

Dummy Receptacle Shell Size	D Dia. Max.	L Max.
8		
10		
12		
14		
16		
18		
20		
22		
24		

All dimensions for reference only

CABLE CLAMP



*10-476808-XXX

Cable Clamp Finish	Suffix
Bright Cadmium Plated Nickel Base	XX7
Anodic Coating (Alumilite)	XX5
Chromate Treated (Iridite 14-2)	XX0
Olive Drab Cadmium Plate Nickel Base	XX9
Electroless Nickel Coating	XXG

REVISION

Cable Clamp Shell Size	A Dia. +.010 - .025	B Dia. +.000 - .011	L Max.	Y Thread Class 2B UNEF (Plated)	GG Max.
8					
10					
12					
14					
16					
18					
20					
22					
24					

All dimensions for reference only

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix (Pyle)

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

Series III TV

Series II JT

Series I LJT

Mounts to all MIL-DTL-38999
The universal header assembly from Amphenol provides for easy separation

The header assembly is comprised of of the contact is soldered to the through The socket is embedded in the insulator,



Headers provide easy separation of the connector from the PC board.

Features and Benefits:

Mounts to all MIL-DTL-38999 connectors without the need for special tools or equipment. The header assembly is designed to accommodate up to 150 pins.

Mounting Applications

Mounts to all MIL-DTL-38999 connectors without the need for special tools or equipment. Circular universal headers are designed to accommodate the rear flange of PCB Board Mount shells, series

Mounting to Rectangular ARINC Connectors

Mounts to all ARINC connectors and can accommodate up to 150 pins.

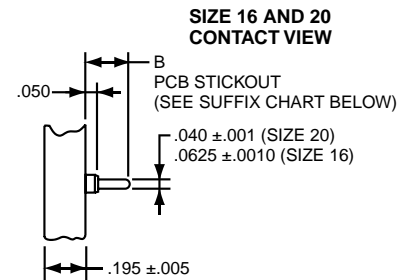
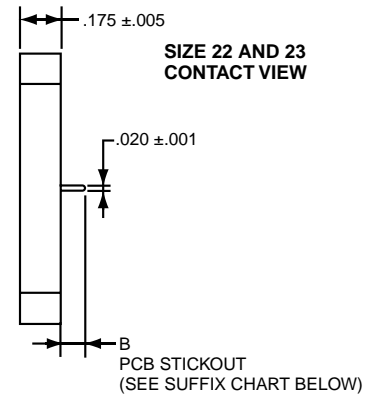
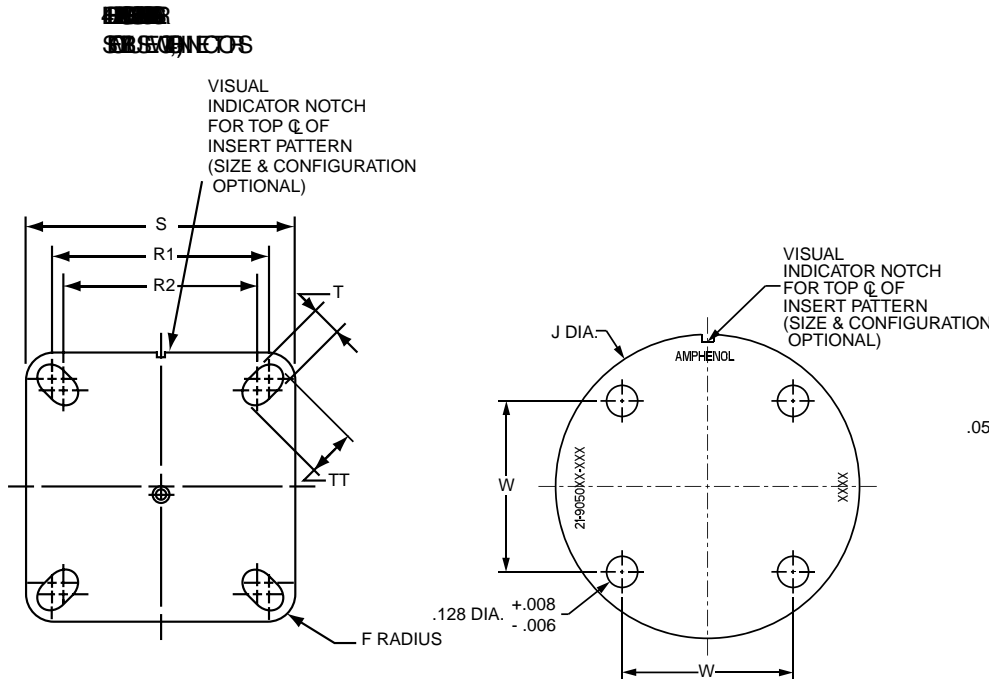
Materials

Aluminum
Steel
Inconel
Titanium
Copper
Silver
Gold
Nickel
Plating

* For information on Header Assemblies for MIL-DTL-26482 connector,

or PC Board Connectors

- Series III TV
- Series II JT
- Series I LJT



NOTE:
Size 16 accepts .048 to .064 dia. PCB tails.
Size 20 accepts .037 to .043 dia. PCB tails.
Size 22 & 23 accepts .018 to .022 dia. PCB tails

Square Assembly Part Number	Shell Size	F Radius	S ± .005	T + .008 - .006	R1 TP†	R2 TP†	TT + .008 - .006
21-904008-XX()	8/9						
21-904010-XX()	10/11						
21-904012-XX()	12/13						
21-904014-XX()	14/15						
21-904016-XX()	16/17						
21-904018-XX()	18/19						
21-904020-XX()	20/21						
21-904022-XX()	22/23						
21-904024-XX()	24/25						

Circular Assembly Part Number	Shell Size	J Dia. ± .005	W
21-905008-XX()	8/9		
21-905010-XX()	10/11		
21-905012-XX()	12/13		
21-905014-XX()	14/15		
21-905016-XX()	16/17		
21-905018-XX()	18/19		
21-905020-XX()	20/21		
21-905022-XX()	22/23		
21-905024-XX()	24/25		

ASSEMBLY NUMBER SUFFIX CHART

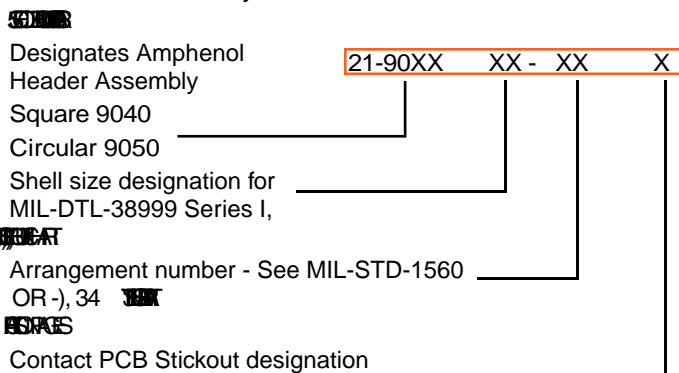
Shell Size Designation*	Arrangement Number Suffix***	Contact PCB Stickout**	
		Suffix	B ± .015 Stickout
08	Insert Arrangement	1	
10	MIL-STD-1560 or MIL-STD-1669	2	
12		3	
14			
16			
18			
20			
22			
24			

DR-), 4, 3E
-), 4, 3E
USE

USE
SERIES
SERIES
SERIES
SERIES

HOW TO ORDER INFORMATION

For Header Assembly with MIL-DTL-38999 Connectors



USE
SERIES
SERIES
SERIES

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shell's

- Options
- Others

38999

Series I

Series II JT

Series I LJT

SJT

All crimping tools included are the "full cycling" type and

There is a possibility of additional crimping tools other than those included being available at present or in the

CRIMPING TOOLS

Contact Size/Type	Crimping Tool	Turret Die or Positioner
12 Pin and Socket	M22520/1-01	M22520/1-04
16 Pin and Socket	M22520/1-01 M22520/7-01	M22520/1-04 M22520/7-04
20 Pin and Socket	M22520/1-01 M22520/2-01 M22520/7-01	M22520/1-04 M22520/2-10 M22520/7-08
22, 22D, 22M Pin	M22520/2-01 M22520/7-01	M22520/2-09 M22520/7-07
22, 22D, 22M Socket Series I, III	M22520/2-01 M22520/7-01	M22520/2-07 M22520/7-05
22D Socket Series II	M22520/2-01 M22520/7-01	M22520/2-06 M22520/7-06
Socket	M22520/2-01	M22520/2-37
Outer Pin & Socket	M22520/5-01	M22520/5-200

Contact Size/Type	Crimping Tool	Turret Die or Positioner
Pin and Socket	M22520/2-01	M22520/2-31
and Socket	M22520/5-01	M22520/5-05 Die Closure B
	M22520/5-01	M22520/5-41 Die Closure B
	M22520/10-01	M22520/10-07 Die Closure B
Pin and Socket	M22520/2-01	M22520/2-35
Pin and Socket	M22520/4-01	M22520/4-02
Pin and Socket	M22520/2-01	M22520/2-34
Pin and Socket	M22520/31-01	M22520/31-02
	TP-201423	

INSERTION TOOLS

Use with Contact Size	Plastic Tools		Metal Tools			
	MS Part Number	Color	Angle Type		Straight Type Commercial Part No.	Color
			MS Part No.	Commercial Part No.		
12	M81969/14-05*	RAPE	M81969/8-11	†	†	Green
16	M81969/14-04*	BLUE	M81969/8-09	11-8674-12††	11-8794-12††	BLUE
20	M81969/14-03*	BLUE	M81969/8-07	11-8674-16††	11-8794-16††	Blue
22	M81969/14-10*	Red / (Orange)	M81969/8-05	11-8674-20††	11-8794-20††	Red
22D, 22M	M81969/14-09	RED/WHITE	M81969/8-03	11-8674-22††	11-8794-22††	RED/WHITE
	M81969/14-01*	RED/WHITE	M81969/8-01	11-8674-24††	11-8794-24††	Black
	None	None	None	None	None	Red

REMOVAL TOOLS

Use with Contact Size	Plastic Tools		Metal Tools				
	MS Part Number	Color	For Unwired Contacts Commercial Part No.	Angle Type		Straight Type Commercial Part No.	Color
				MS Part No.	Commercial Part No.		
12	M81969/14-05*	RAPE	†	M81969/8-12	†	†	RED/WHITE
16	M81969/14-04*	BLUE	11-10050-11††	M81969/8-10	11-8675-12††	11-8795-12††	BLUE
20	M81969/14-03*	BLUE	11-10050-10††	M81969/8-08	11-8675-16††	11-8795-16††	BLUE
22	M81969/14-10*	(Orange) / Red	11-10050-9††	M81969/8-06	11-8675-20††	11-8795-20††	Red / Orange
22D, 22M	M81969/14-09*	RED/WHITE	11-10050-8††	M81969/8-04	11-8675-22††	11-8795-22††	RED/WHITE
	M81969/14-01*	RED/WHITE	11-10050-7††	M81969/8-02	11-8675-24††	11-8795-24††	RED/WHITE
	M81969/14-12	Green	None	None	11-9170††	2+ ooo	N/A
	M81969/14-12	Green	None	None	11-9170††	N/A	N/A

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables
EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle
5015 Crimp Rear Release Matrix
22992 Class I
Back-Shells
Options Others

III
Series II JT
Series I LJT
SJT

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

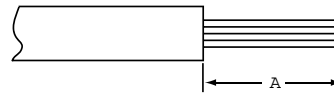
- 5015
- Crimp Rear
- Release
- Matrix
- 22992
- Class 1

- Back-
- Shells

- Options
- Others

Wire Stripping

Stripping Dimensions



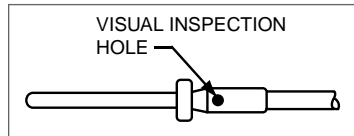
Wire Size	A
-	
20	
16	
12	

Table 1

Contact Size	Wire Dimension (inches)**	
	Min.	Max.
10		
12		
16		
20		
22		
22M, 22D		

Crimping

See table on preceding page for recommended M22520 series crimping tools, turret head or positioner selection settings according to



ADVANCED

ADVANCED

ADVANCED

12 contacts and has a positioner that can be

Contact Insertion

and receptacle and slide the hard-



result Insertion Tool table on preceding

to the properly identified cavity at



The colored side is the insertion tool and

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables
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- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear
- Release
- Matrix
- 22992
- Class I
- Back-
- Shells
- Options
- Others

Series II JT Series I LJT SJT

Contact Insertion, cont.

properly seated and isn't dragged

sealing plug charts for Series III on page 18, for Series I & II

met into position and tighten clamp bar should be applied in the same direction that clamp is threaded to rear threads of



54).

Contact Removal

removal tool for correspond-

contact cavity until tool tips enter rear Hold tool tip firmly against positive stop on



Amphenol Aquacon Series



TABLE OF CONTENTS

AQUACON IMMERSIBLE CONNECTORS

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Accessories / Installation

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Aquacon Connector Typical Markets:



- s Navy Seal Breathers
- s Space Applications that require Water Immersion

Amphenol
Aerospace

38999

The Amphenol® Aquacon Series of connectors has

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

s 1500 PSI Capability

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

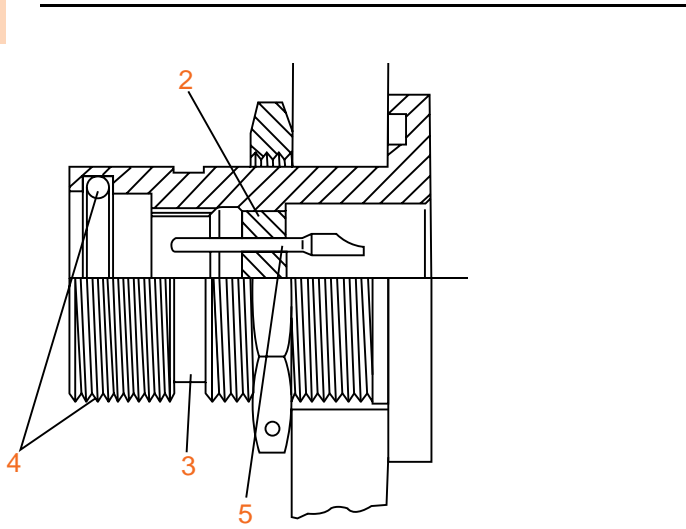
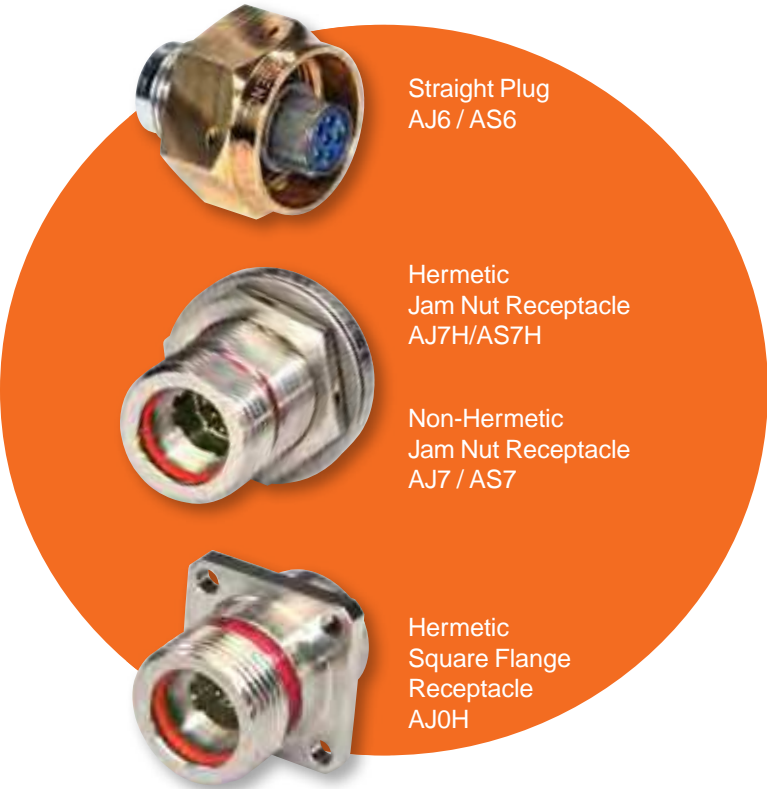
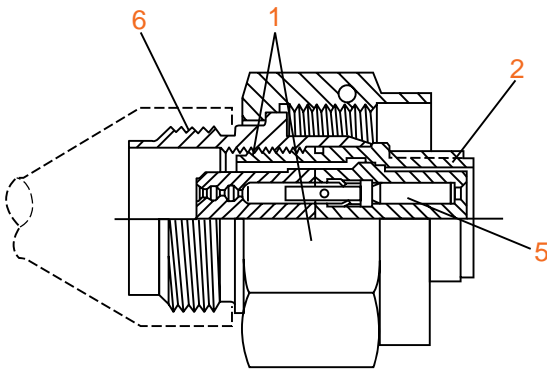
5015
Crimp Rear Release
Matrix

22992
Class I

Back-Shell
Others

Options
Others

Design Features of Aquacon Series Connectors



stainless steel sleeve
 -, 4,
 Pin or socket contacts in either plug or receptacle

Aquacon Contact Ratings

Contact Size	Test Current		Maximum Millivolt Drop			Crimp Well Data		Solder Well Data	
	Standard	Hermetic	Crimp	Solder	Solder Hermetic	Diameter	Depth	Diameter	Depth
22M	3	2	30	20	60			n	
22D	5	-	40	-	-			-	-
22	5	3	40	20	85			n	
20		5	35	20	60			n	
16	13	10	25	20	85			n	
12	23	17	25	20	85				

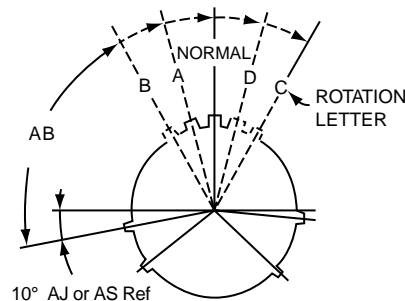
Aquacon Service Ratings

Service Rating	Suggested Operating Voltage (Sea Level)	
	AC (RMS)	DC
M	400	550
I	600	850
II	900	1250

The establishment of electrical safety factors is left entirely in the

Alternate Positioning

Shell Size	AB Angle of Rotation (Degrees)				
	Normal	A	B	C	D
8	100	82			118
10	100	86	72	128	114
12	100	80	68	132	120
14	100	79	66	134	121
16	100	82	70	130	118
18	100	82	70	130	118
20	100	82	70	130	118
22	100	85	74	126	115
24	100	85	74	126	115



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY
(FRONT FACE OF AJ or AS RECEPTACLE SHOWN)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

Aquacon Shell Size	Solder	Crimp	Hermetic*	Service Rating**	Total Contacts	Contact Size					
						22D	22M	22	20	16	12
8-3	8		8	M	3				3		
8-6	8	8	8	M	6		6				
8-35		8	8	M	6	6					
8-44		8		M	4			4			
8-98		8	8	I	3				3		
10-5	8	8	8	I	5				5		
10-13	8	8	8	M	13		13				
10-35		8	8	M	13	13					
10-98	8	8	8	I	6				6		
12-3	8	8	8	II	3					3	
12-8	8	8	8	I	8				8		
12-35		8	8	M	22	22					
12-98	8	8	8	I	10				10		
14-5	8	8	8	II	5					5	
14-15	8	8		I	15				14	1	
14-18	8	8	8	I	18				18		
14-35		8	8	M	37	37					
14-37	8	8	8	M	37		37				
16-6†		8	8	I	6						6
16-8	8	8	8	II	8					8	
16-26	8	8	8	I	26				26		
16-35		8	8	M	55	55					
16-55	8	8	8	M	55		55				
18-11	8	8		II	11					11	
18-32	8	8	8	I	32				32		
18-35		8	8	M	66	66					
18-66	8	8	8	M	66		66				
20-1		8		M	79		79				
20-2		8		M	65			65			
20-16	8	8	8	II	16					16	
20-35		8		M	79	79					
20-39	8	8		I	39				37	2	
20-41	8	8	8	I	41				41		
22-2	8	8		M	85			85			
22-21	8	8	8	II	21					21	
22-32	8			I	32				32		
22-35		8		M	100	100					
22-55	8	8	8	I	55				55		
24-19†		8	8	I	19						19
24-24†		8		I	24					12	12
24-35		8		M	128	128					
24-61	8	8		I	61				61		

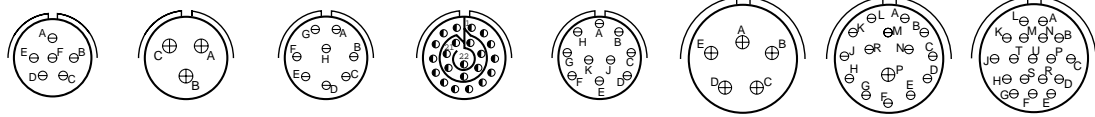
** See specifications
© AMPHENOL AEROSPACE

Front face of pin inserts illustrated

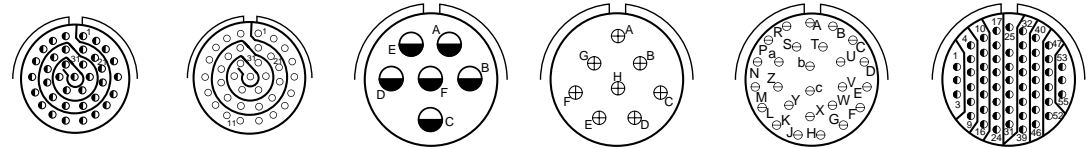
38999



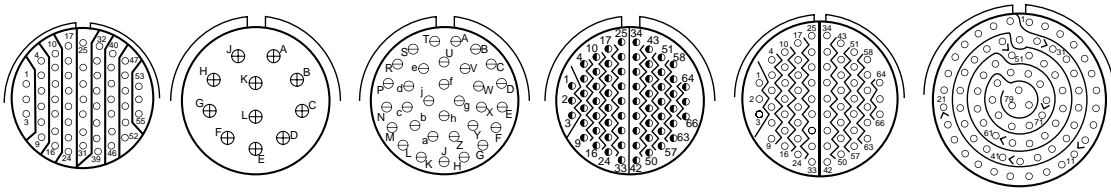
Insert Arrangement	8-3	8-6	8-35	8-44	8-98	10-5	10-13	10-35
Service Rating	M	M	M	M	I	I	M	M
Number of Contacts	3	6	6	4	3	5	13	13
Contact Size	20	22M	22D	22	20	20	22M	22D



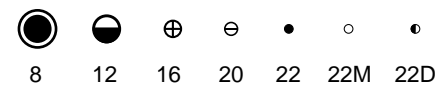
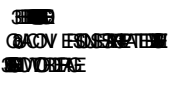
Insert Arrangement	10-98	12-3	12-8	12-35	12-98	14-5	14-15	14-18
Service Rating	I	II	I	M	I	II	I	I
Number of Contacts	6	3	8	22	10	5	14	1
Contact Size	20	16	20	22D	20	16	20	16



Insert Arrangement	14-35	14-37	16-6†	16-8	16-26	16-35
Service Rating	M	M	I	II	I	M
Number of Contacts	37	37	6	8	26	55
Contact Size	22D	22M	12	16	20	22D



Insert Arrangement	16-55	18-11	18-32	18-35	18-66	20-1
Service Rating	M	II	I	M	M	M
Number of Contacts	55	11	32	66	66	79
Contact Size	22M	16	20	22D	22M	22M



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

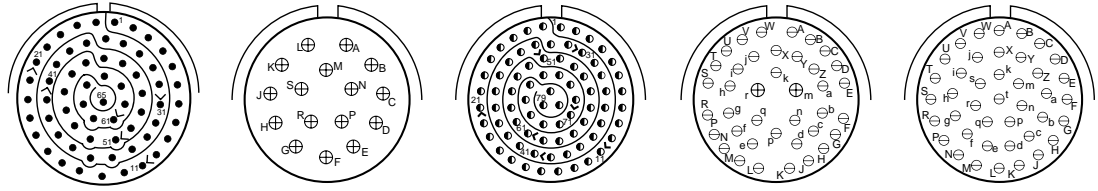
- 22992
- Class I

- Back-Shell

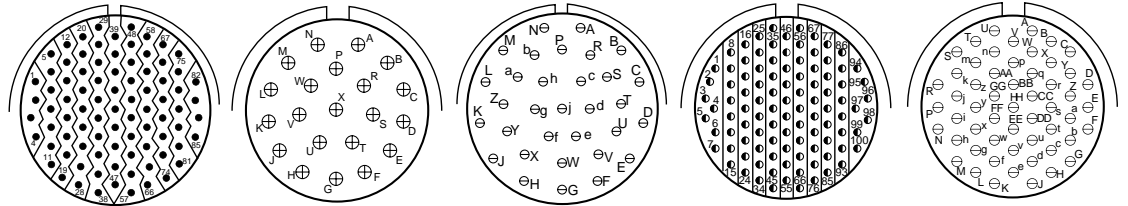
- Options
- Others

38999

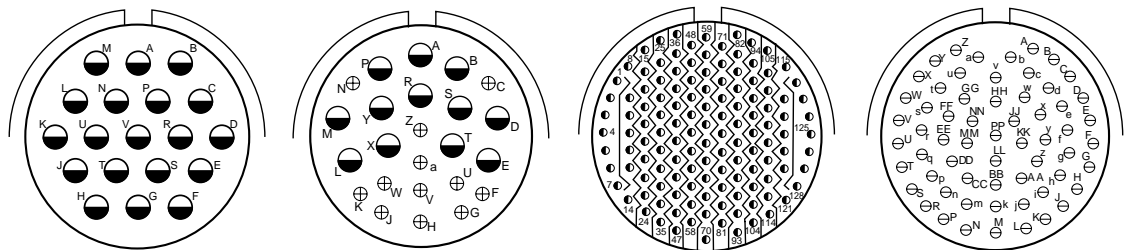
Front face of pin inserts illustrated



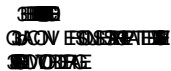
Insert Arrangement	20-2	20-16	20-35	20-39	20-41
Service Rating	M	II	M	I	I
Number of Contacts	65	16	79	37 2	41
Contact Size	22	16	22D	20 16	20



Insert Arrangement	22-2	22-21	22-32	22-35	22-55
Service Rating	M	II	I	M	I
Number of Contacts	85	21	32	100	55
Contact Size	22	16	20	22D	20



Insert Arrangement	24-19†	24-24†	24-35	24-61
Service Rating	I	I	M	I
Number of Contacts	19	12 12	128	61
Contact Size	12	16 12	22D	20



. 4 4 , . 8 12 16 20 22 22M 22D

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



Easy Steps to build a part number... Aquacon Series

1.	2.	3.	4.	5.	6.	7.	8.
Connector Type	Family Designator	Shell Style	Contact Type	Shell Size – Insert Arrangement	Contact Configuration	Insert Rotation	Special Variation
A	J or S	6	R -	20-41	S	A	(445)

Step 1. Type Designator

	Designates
A	Aquacon Immersible Connectors

Step 2. Select a Family Designator

	Designates
J	QUACON WITH PINS
S	QUACON WITH PIN AND WIRE 12 contacts only

Step 3. Select a Shell Style

	Designates
0	QUACON WITH PINS
6	Straight Plug
7	QUACON WITH PINS

Step 4. Select a Contact Type

C	QUACON WITH PINS
R	Removable Crimp Termination
H	QUACON WITH PINS

Step 5. Select a Shell Size & Insert Arrangement

QUACON WITH PINS & Insert Arrangements are together in one chart on page 100.

Step 6. Select a Contact Configuration

	Designates
P	Pin Contacts
S	Socket Contacts

Step 7. Select an Alternate Rotation Position

Step 8. Special Variations

	Designates
(168)	QUACON WITH PINS
(445)	QUACON WITH PINS

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

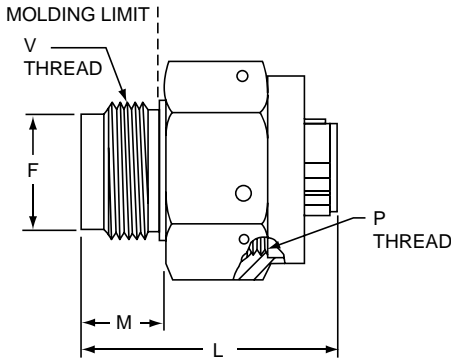
Back-Shells

Options Others

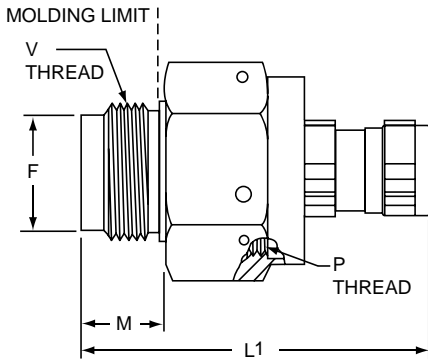
38999

PART # To complete, see how to order page 131.

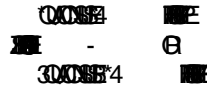
Connector Type	Family Designator	Shell Style	Contact Type	Shell Size	Insert Arrangement	Contact Configuration	Insert Rotation	Special Variation
A	J or S	6	C or R	-XX	-XX	P or S	X	(445)



AJ6X-XX-XXX(445)



AS6X-XX-XXX(445)



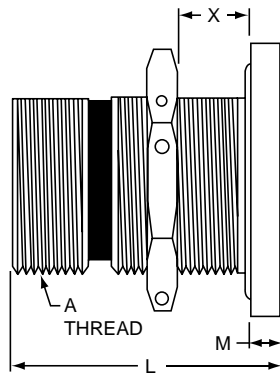
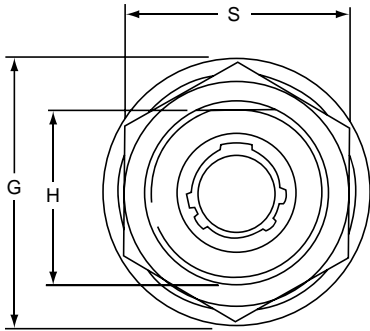
incorporate size 12 contacts

Shell Size	F Dia. +.000 -.005	L Max. (AJ)	L1 Max. (AS)	M ±.010	P Thread Class 2B	S Hex ±.016	V Thread Class 2A UNEF
8					5.		
10					5.		
12					5.		
14					5.		
16					5.		
18					5.		
20					5.		
22					5.		
24					5.3		

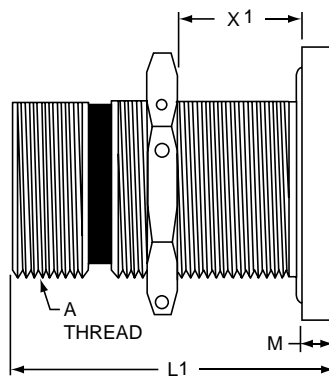
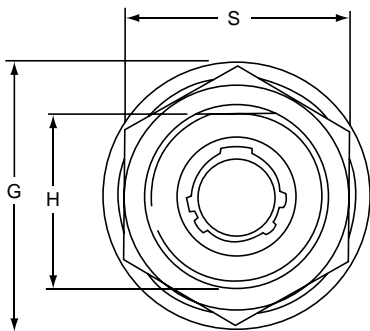
AJ7H / AS7H Aquacon Hermetic Jam Nut Receptacle

PART # To complete, see how to order page 131.

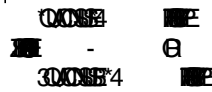
Connector Type	Family Designator	Shell Style	Contact Type	Shell Size	Insert Arrangement	Contact Configuration	Insert Rotation	Special Variation
A	J or S	7	H	-XX	-XX	P or S	X	(XXX)



AJ7H-XX-XXX(XXX)



AS7H-XX-XXX(XXX)



incorporate size 12 contacts

Shell Size	A Thread Class 2A	G Dia.	H +0.000 -0.000	L ±.010 (Hermetic AJ)	L1 +0.000 -0.010 (Hermetic AS)	M	S Hex ±.016	X	X1
								Bulkhead Thickness (AJ)	Bulkhead Thickness (AS)
8	5.							n	n
10	5.							n	n
12	5.							n	n
14	5.							n	n
16	5.							n	n
18	5.							n	n
20	5.							n	n
22	5.							n	n
24	5.3							n	n

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

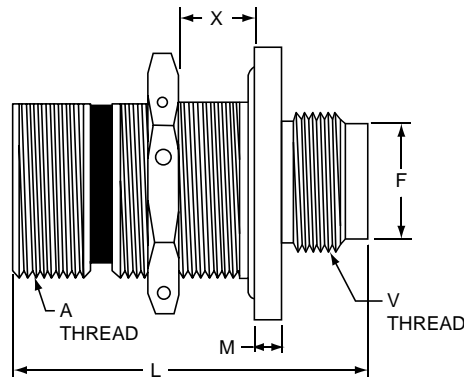
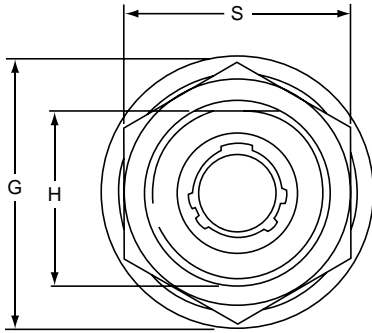
- 5015 Crimp Rear Release Matrix
- 22992 Class 1

- Back-Shell's
- Options
- Others

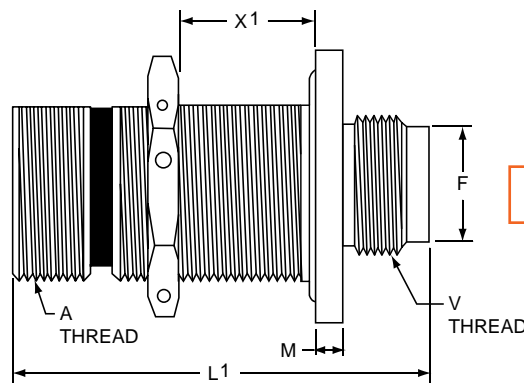
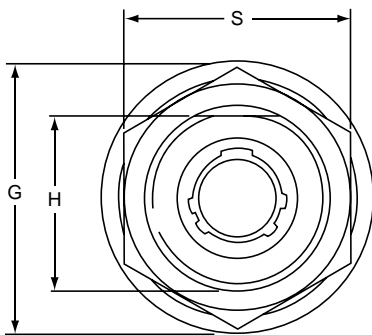
38999

PART # To complete, see how to order page 131.

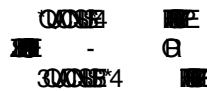
Connector Type	Family Designator	Shell Style	Contact Type	Shell Size	Insert Arrangement	Contact Configuration	Insert Rotation	Special Variation
A	J or S	7	C or R	-XX	-XX	P or S	X	(168)



AJ7X-XX-XXX(168)



ASJX-XX-XXX(168)



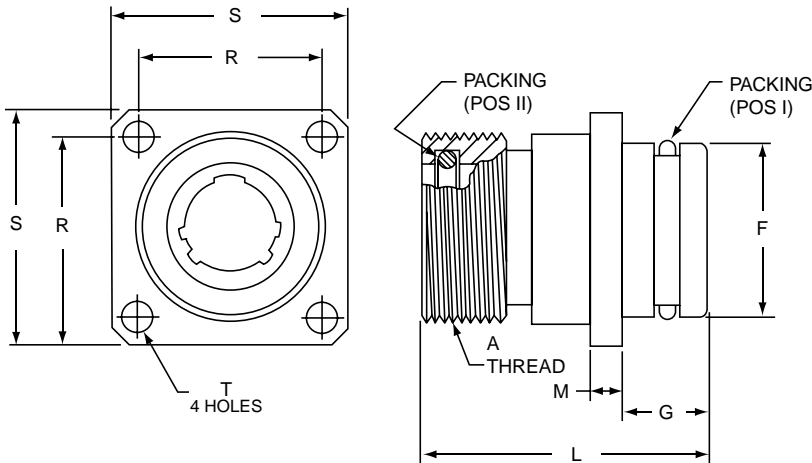
incorporate size 12 contacts

Shell Size	A Thread Class 2A	F +0.00 -0.05	G Dia.	H +0.00 -0.05	L ±0.10 (AJ)	L1 +0.00 -0.10 (AS)	M	S Hex ±0.16	V Thread Class 2A UNEF	X Bulkhead Thickness	X1 Bulkhead Thickness
										(AJ)	(AS)
8	5.								n	n	
10	5.								n	n	
12	5.								n	n	
14	5.								n	n	
16	5.								n	n	
18	5.								n	n	
20	5.								n	n	
22	5.								n	n	
24	5.3								n	n	

AJ0H Aquacon Hermetic Square Flange Receptacle

PART # To complete, see how to order page 131.

Connector Type	Family Designator	Shell Style	Contact Type	Shell Size	Insert Arrangement	Contact Configuration	Insert Rotation	Special Variation
A	J	0	H	-XX	-XX	P or S	X	(XXX)



AJ0H-XX-XXX(XXX)

The Aquacon Hermetic Square Flange Receptacle



Shell Size	A Thread Class 2A	F Dia. +.000 - .001	G ±.030	L	M	R	S	T ±.005	Packing Pos I Part Number	Packing Pos II Part Number
8	5 .								10-90351-15	10-90351-14
10	5 .								10-90351-17	10-90351-16
12	5 .								10-90351-19	10-90351-18
14	5 .								10-90351-21	10-90351-20
16	5 .								10-90351-23	10-90351-22
18	5 .								10-90351-24	10-90351-24
20	5 .								10-90351-26	10-90351-26
22	5 .								10-90351-28	10-90351-28
24	5.3								10-90351-29	10-90351-29

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

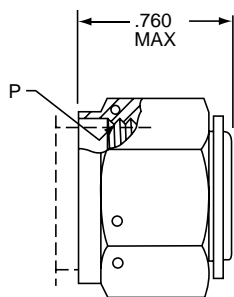
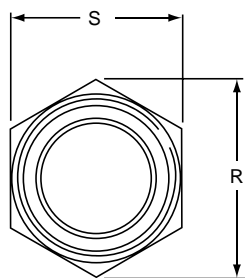
5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

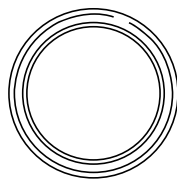
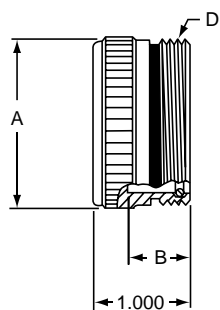
Options
Others

38999



Receptacle Protection Cap
10-377664-XX

Shell Size	PThread Class 2A	R Ref.	S Hex +.005 -010
8	5.		
10	5.		
12	5.		
14	5.		
16	5.		
18	5.		
20	5.		
22	5.		
24	5.3		



Plug Protection Cap
10-399623-XX

Shell Size	A Dia. Max.	B +.031 -000	D Thread Class 2A
8			5.
10			5.
12			5.
14			5.
16			5.
18			5.
20			5.
22			5.
24			5.3



Protection Cap Style		Cap Size
For Receptacle Connector	10-377664 -	20
For Plug Connector	10-399623 -	20

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

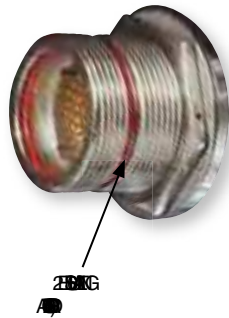
- Back-Shells

- Options
- Others

Sealing

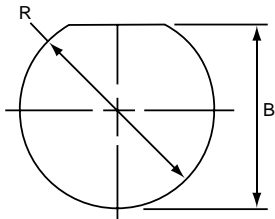
Sealing

the plug coupling nut to assure to reliable,



Mounting Surfaces

MOUNTING CUTOUTS



Rear mount jam nut

Shell Size	B +0.010 -0.000	R +0.010 -0.000
8		
10		
12		
14		
16		
18		
20		
22		
24		

Receptacle "O" Ring Racking Requirements

Shell Size	Main Joint Seal	Shell to Mounting Surface Seal
		Jam Nut
8	ARP-014	ARP-019
10	ARP-016	ARP-021
12	ARP-018	ARP-023
14	ARP-020	ARP-025
16	ARP-022	ARP-027
18	ARP-024	ARP-029
20	ARP-026	ARP-030
22	ARP-028	ARP-031
24	ARP-029	ARP-032

Conversion Table Salt Water Depth to Hydrostatic Pressure

Salt-Water Depth in Feet	Pounds per Sq. Inch	Salt-Water Depth in Feet	Pounds per Sq. Inch
10	4	2,000	890
25	11	2,500	1,113
50	22	3,000	1,335
75	33	4,000	1,780
100	45	5,000	2,225
200	89	6,000	2,670
250	111	7,000	3,115
300	134	7,500	3,338
400	178	8,000	3,560
500	223	9,000	4,005
600	267	10,000	4,450
750	334	15,000	6,675
800	356	20,000	8,900
1,000	445	25,000	11,125

Application Tooling

Contact Size	Crimping Tool	Positioner	Insertion Tool*	Removal Tool*	Sealing Plug*	Color Code	Reference Publication
22M	M22520/2-01	M22520/2-09†	11-8674-24††	11-8675-24††	10-405996-22	Black	L-624
22D	M22520/2-01	M22520/2-09†	11-8674-24††	11-8675-24††	10-405996-22	Black	
22	M22520/2-01	M22520/2-09†	11-8674-22††	11-8675-22††	10-405996-22	Black	
20	M22520/1-01	M22520/1-04	11-8674-20††	11-8675-20††	10-405996-20	Blue	
16	M22520/1-01	M22520/1-04	11-8674-16††	11-8675-16††	10-405996-16	Blue	
12	M22520/1-01	M22520/1-04	11-8674-12††	11-8675-12††	10-405996-12	Blue	

* Amphenol Part Numbers

† 5SE -

††

†††

††††

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482

Matrix 2

83723 III

Matrix | Pyle

26500

Pyle

5015

Crimp Rear Release Matrix

22992

Class 1

Back-Shell's

Options

Others

38999

Contact Installation

Wire and Cable Preparation

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon**
- Herm/Seal
- PCB

Table 1: Wire Strip Length in Inches

Contact Type	Contact Size					
	22M	22D	22	20	16	12
A	1/8	-	1/8	5/32	5/32	
Crimp	1/8 - 5/32			7/32 - 1/4		

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

Solder Contact Termination

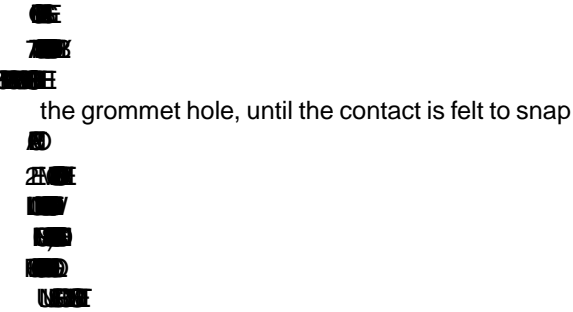


Crimp Contact Termination



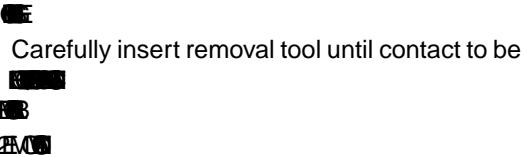
Contact Insertion

Select proper insertion tool from Application Tooling



Contact Removal

Select proper removal tool from Application Tooling



Amphenol Hermetic High Speed/ Epoxy Sealed Connectors



TABLE OF CONTENTS

Series III TV Options

s Amphenol High Speed Hermetic Connectors	140
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s	142

HERMETIC QUICK REFERENCE

s	36-38
s	78, 79
s	90, 91
s 3*4	104
	135
s 0	170-172, 176, 177, 183, 184
s	369, 370, 381, 388-390
s 26500, Pyle	421



APPLICATIONS:



Hermetic Typical Markets:

s Military & Commercial Aviation (older designs)

PAN6433-2, LN29729, VG96912

s Military Vehicles

Amphenol
Aerospace

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol Aerospace is offering superior electrical performance plus the rugged design of a glass sealed hermetic connector.

CUSTOM HERMETIC CONNECTORS:

Amphenol glass sealed hermetic connectors



- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables



FEATURES AND BENEFITS:

- Special flanges
- Crimp termination

High Speed Hermetic Connectors have been designed to meet the demands of today's harsh environments and superior electrical needs

CONNECTOR SPECIFICATIONS & BENEFITS:

- @ 1atm differential
- - (Z)
- AT
- AT

CONNECTOR FEATURES:

- @ 1atm differential

CONNECTOR OPTIONS:

- Special flanges

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

EPOXY SEALED CONNECTORS

-
-
-
-
-
-
-
-

For other epoxy sealed connector options please see "Filter How to Order" page 278 or contact Amphenol Aerospace

Amphenol Aerospace offers a lightweight 38999 Series III interconnect solution for sealed bulkhead applications.



Sealed Jam Nut Receptacles (showing front and back) with Crimp Contacts - Use UTS Termination System with M39029/57 Socket Crimp Contacts and Standard Insertion/Removal Tool

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options Others



Ideal for Thru-Bulkhead Applications

Features and benefits:

- Lightweight
- Sealed
- High Speed
- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others

Steps to build a part number... 21-906 Series Receptacles



Connector Type	Shell Styles	Shell Size – Insert Arrangement	Alternate Keyway Position	Shell Finish
21-906	7	23-35	H	D

Step 1. Connector Type

	Designates
21-906	4 REAR RELEASE MATRIX

Step 2. Select a Receptacle Shell Style

	Designates
7	REAR RELEASE MATRIX
0	REAR RELEASE MATRIX

Step 3. Select a Shell Size and Insert Arrangement

NUMBER OF -), 34

Step 4. Select an Alternate Keying Position on Shell

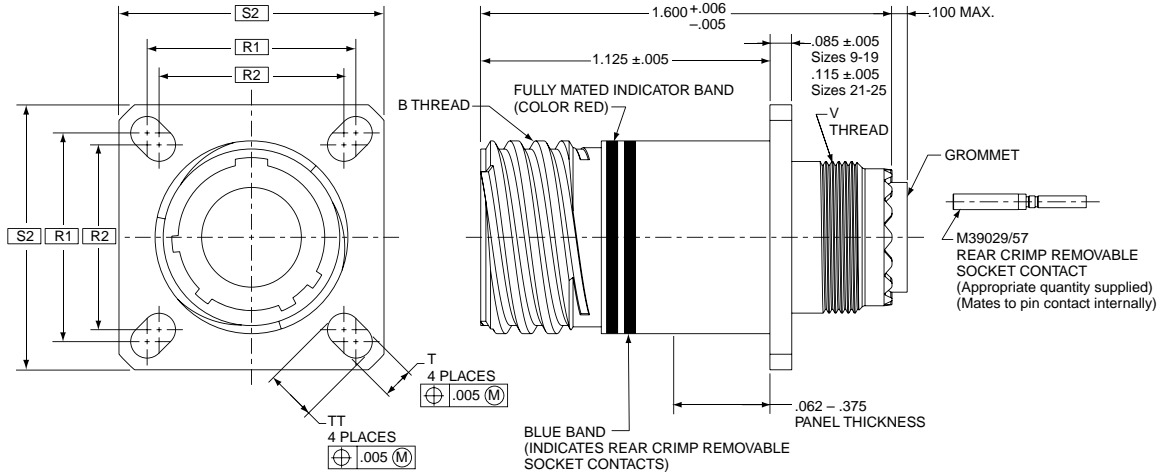
	Pin	Socket
Normal	P	S
A	G	H
B	)	J
C	K	L
D	M	N
E	R	4

Step 5. Select a Shell Finish

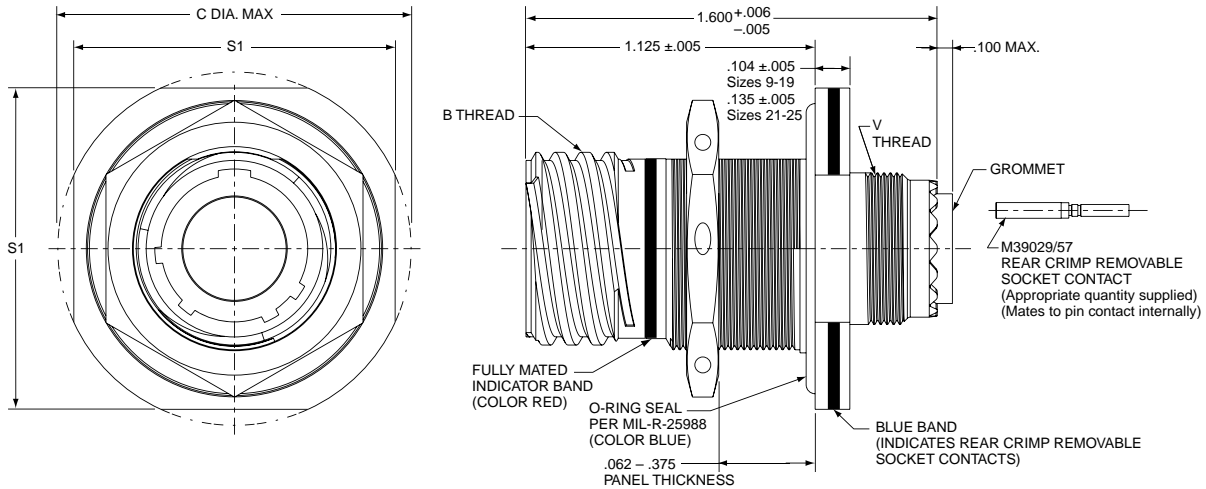
	Designates
None	PLAIN
9	BLACK
D	DRY

38999

Wall Mount Receptacle 21-9060 ()* Similar to D38999/20



Jam Nut Receptacle 21-9067 ()* Similar to D38999/24



Part Number	B Thread 0.1P - 0.3L - TS Class 2A	C Dia. Max.	R1	R2	S1	S2	T +.008 -.006	TT +.008 -.006	V Thread
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2
8 8888								- 8 G	2

Amphenol Circular Connectors for Printed Circuit Board Applications



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 **New
Featured**

PCB Contacts



PCB Connector Typical Markets:

- s Military and Commercial Aviation
- s Space & Satellites
- s Military Vehicles
- s Shipboard
- s Instrumentation

Amphenol
Aerospace 

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix I Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

Amphenol provides circular connectors with PC Tail contacts. This catalog section features the 38999 Series III, II, and I connectors which are ideal for printed circuit board applications, either with rigid attachment or with flex print assembly attachment. For information on other Amphenol circular connectors with PC Tail contacts, consult Amphenol, Sidney NY.

MIL-DTL-38999 CONNECTORS, METAL & COMPOSITE

- Lightweight, compact, high density and high reliability cylindrical
- Operating voltage to 900 VAC (RMS) at sea level
- Environmentally resistant
- Solder or crimp rear release contacts in mating plug
- Series I (LJT) - Bayonet coupling
 - Scoop-proof (recessed pins) offers maximum contact protection
- Series II (JT) - Bayonet coupling
 - For applications requiring maximum weight/space savings and reliability
- Series III (Tri-Start) - Threaded, quick coupling in one complete turn
 - Designed for general duty as well as severe environmental applications
 - Superior EMI shielding with grounding fingers and metal-to-metal mating
 - Filter/Transient protection versions available
 - Scoop-proof contact protection
 - Stainless steel firewall versions, and composite versions
 - Available in Hermetics

See MIL-DTL-38999 Series I, II, and III sections of this catalog for more detailed information.
 Note: MIL-DTL-38999 supersedes MIL-C-38999.



38999 Series III Box Mount Connector with PC Tails



Special 38999 Connector with Stand-off Shell and PC Tails



38999 Series III Connector with a Special Configuration Composite Shell and PC Tails

How to Measure the PCB Tail Length

The tail length of the PCB is the portion of the contact that extends beyond the rear of the shell. This length will vary in relationship to the mounting flange, depending on the series of connector selected. Standard lengths are shown on the connector shell style drawings in this catalog. These shell style drawing pages also provide how to order part numbering for standard PCB cylindrical connectors. When computing the desired tail length, it is important to take into consideration the following factors:

- The connector series and shell style.
- The mounting style of the receptacle; jam nut (D hole) or panel mount (four holes). This can affect the overall length of the tail.
- The extension of the tail beyond the opposite side of the board or the flex.
- The space required to adequately clean flux from between the board or flex and the rear of the connector shell. Connectors that are mounted flush against the board may trap soldering flux which could lead to corrosion of the solder joints.



Stand-off Adapter on a Jam Nut Receptacle.

Would Alignment Discs, Headers or Special Stand-off Shells be Beneficial?

The answer is yes any mechanical methods needed to stabilize the board or flex to the connector and/or the panel is beneficial. The PCB tails shown in this catalog are of one diameter. Stepped tails or PCB tails with an increased diameter on a designated portion may be required for certain applications.

Alignment discs are available which provide ease of alignment of pins to boards, protection during shipment and optimized electrical circuit separation. Header assemblies (see pages 120 & 121) are available which provide time and cost saving potentials. Standoffs may be required for certain applications. Amphenol has developed a new stand-off adapter (see page 185) which may eliminate the need for special stand-off shell designs. Connectors with clinch nuts can be provided. Please call Amphenol to discuss any optional designs or any special requirements.



Universal Header Assemblies are available for Flex Print/PC Board Mounting. Beneficial especially when electrical testing of the connector requires it to be removed and reattached.

What Determines the Diameter of the PCB Tail?

The outside diameter of the PCB tail is determined by the inside diameter of the plated through-hole on the board or flex print. The standard or most popular diameters are shown in the chart on the next page and are called out in the connector illustrations in this catalog.

Standard diameters of PCB tails

Connector Series	Size 16 Contact	Size 20 Contact	Size 22D Contact
MIL-DTL-38999	.062 ±.001	.019 ±.001	.019 ±.001

Should PCB Tails be Gold Plated or Pre-tinned?

The standard PCB tails for MIL-DTL-38999 receptacles have gold plating, .00005 inches over nickel. Amphenol can substitute a pre-tinned version of these tails to facilitate the termination process. This pre-tinning is a 60/40 lead-tin alloy. Call Amphenol for further information on pre-tinning and any other plating of contacts not covered in this catalog.

Would Flex Assemblies be Necessary or Beneficial for the Application?

Flex print can radically simplify the assembly of a connector to a system, as well as eliminate wiring errors. Amphenol offers connector flex assemblies through APC, Amphenol Printed Circuit division. Features and benefits of using flex technology include:

- Available for MIL-DTL-38999 (including filter EMI/EMP types) circular connectors
- Sculptures® Flexible Circuits with built-in terminations
- Eliminates failures associated with crimped or solder-on contacts
- Geometrically fit tight space requirements and create a self-locking terminal pad

Should Other PC Tail Contact Types be Considered?

Press-Fit Connectors with compliant pins are available which engage the plated through-holes in the board without the need for soldering. This optional contact style offers the following benefits:

- Improved board processing time
- Excellent temperature performance
- Ideal for low-lead applications

For more information on Press-Fit connectors with compliant pins see page 557.

Special Quadrax contacts have been designed with PC tails. Coax, twinax and triax contacts can also have PC tails. Refer to the High Speed contacts section of this catalog.



Compliant Pin Contacts in a Bayonet 38999 Catalog



Special Design with Longer PC Tails in a 38999 Composite Shell Connector. Also shows an Alignment Disc.



Flex Termination for Attachment to PC Boards



Quadrax PC Tail Contacts Combined with Standard PC Tail Contacts



Quadrax Contacts with PC Tails in a 38999 Connector with Special Stand-off Shell

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class 1

Back-Shell

Options
Others

38999

The following table lists the most commonly used insert arrangements for printed circuit board application of MIL-DTL-38999 circular connectors. This represents the most readily available patterns within these series. See illustrations of these selected patterns on the following pages. If you require other arrangements than what are shown here, consult Amphenol for further availability.

Example: Shell Size is the first number (8-3) Insert Arrangement is second number.

MIL-DTL-38999			Service Rating	Total Contacts	Contact Size*		
JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III			22D	20	16
8-3	9-3		M/I	3		3	
8-35	9-35	9-35	M	6	6		
8-98	9-98	9-98	I	3		3	
10-5	11-5	11-5	I	5		5	
	11-6		I	6		6	
10-35	11-35	11-35	M	13	13		
12-3	13-3		II	3			3
12-35	13-35	13-35	M	22	22		
14-18	15-18	15-18	I	18		18	
14-19	15-19	15-19	I	19		19	
14-35	15-35	15-35	M	37	37		
16-26	17-26	17-26	I	26		26	
16-35	17-35	17-35	M	55	55		
18-11	19-11	19-11	II	11			11
18-32	19-32	19-32	I	32		32	
18-35	19-35	19-35	M	66	66		
20-27	21-27		I	27		27	
20-35	21-35	21-35	M	79	79		
20-41	21-41	21-41	I	41		41	
22-35	23-35	23-35	M	100	100		
22-55	23-55	23-55	I	55		55	
24-31			I	31			31
24-35	25-35	25-35	M	128	128		
24-61	25-61	25-61	I	61		61	

* For information on size 12 PC tail contacts consult Amphenol Aerospace.

Printed Circuit Boards are available in other series like MIL-DTL-26482 and MIL-5015 Connectors. Please contact Amphenol Aerospace for more information.



MIL-DTL-26482

- Medium size, widely used circular
- Operating voltage to 1,000 VAC (RMS) at sea level
- Series 1 (PT) - Bayonet coupling - most commonly used in PCB applications
- Environmentally resistant
- Solder or crimp front and rear release contacts in mating plug

Black/green zinc alloy plating (cadmium-free) available



MIL-5015 Connector

- Medium-heavy weight, time-tested circular
- Operating voltage to 1,500 VAC (RMS) at sea level
- Environmentally resistant or general duty
- Threaded coupling
- Solder or crimp rear insertion contacts in mating plug

Black/green zinc alloy plating (cadmium-free) available

Circular Connectors – PCB Contacts

Alternate Positioning for MIL-DTL-38999

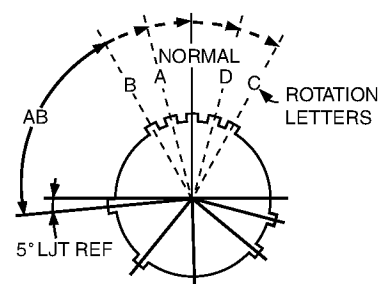
To avoid cross-plugging problems in applications requiring the use of more than one connector of the same series, size and arrangement, alternate rotations are available as indicated in the accompanying charts.

In MIL-DTL-38999 Series I, II and III connectors the rotation is based on rotating the master key/keyway in the connector shell.

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. Only the master key/keyway rotates in the shell, and the insert always remains in the same position relative to the minor keys. Refer to diagrams below for each connector series.

LJT (MIL-DTL-38999 Series I) KEY/KEYWAY ROTATION

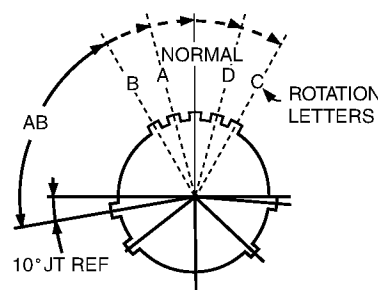
Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal°	A°	B°	C°	D°
9	95	77	—	—	113
11	95	81	67	123	109
13	95	75	63	127	115
15	95	74	61	129	116
17	95	77	65	125	113
19	95	77	65	125	113
21	95	77	65	125	113
23	95	80	69	121	110
25	95	80	69	121	110



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of LJT connector receptacle shown)

JT (MIL-DTL-38999 Series II) KEY/KEYWAY ROTATION

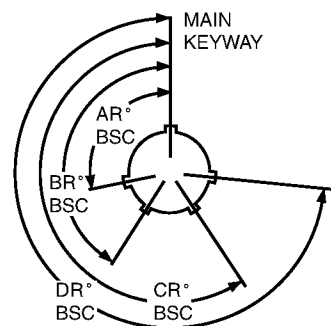
Shell Size	AB ANGLE OF ROTATION (Degrees)				
	Normal°	A°	B°	C°	D°
8	100	82	—	—	118
10	100	86	72	128	114
12	100	80	68	132	120
14	100	79	66	134	121
16	100	82	70	130	118
18	100	82	70	130	118
20	100	82	70	130	118
22	100	85	74	126	115
24	100	85	74	126	115



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of JT connector receptacle shown)

Tri-Start (MIL-DTL-38999 Series III) KEY/KEYWAY ROTATION

Shell Size	Key & Keyway Arrangement Identification Letter	AR°	BR°	CR°	DR°
		BSC	BSC	BSC	BSC
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	E	91	131	197	240
	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
17 and 19	D	119	146	176	298
	E	51	141	184	242
	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
21, 23, and 25	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of Tri-Start connector receptacle shown)

MIL-DTL-38999 SERIES I LJT & SERIES II JT CONNECTORS ALTERNATE ROTATION CROSS-REFERENCE LETTERS

Pins in Alternate Rotations	Sockets in Alternate Rotations
PA = E	SA = F
PB = R	SB = T
PC = W	SC = X
PD = Y	SD = Z

Explanation:
Use P at end of part number for pin contacts in Normal position. Use S at end of part number for socket contacts in Normal position. Use cross-reference letters given in chart above for alternate rotations.

MIL-DTL-38999 SERIES III, TRI-START CONNECTORS ALTERNATE ROTATION CROSS-REFERENCE LETTERS

Pins in Alternate Rotations	Sockets in Alternate Rotations
PA = G	SA = H
PB = I	SB = J
PC = K	SC = L
PD = M	SD = N
PE = R	SE = T

Explanation:
Use P at end of part number for pin contacts in Normal position. Use S at end of part number for socket contacts in Normal position. Use cross-reference letters given in chart above for alternate rotations.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2
83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

Insert Arrangement #8-3 / 9-3

Connector Type:

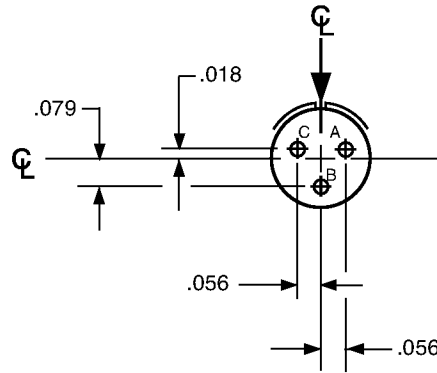
JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
8-3	9-3	NA

Number of Contacts	Contact Size	Service Rating
3	20	M

Insert Designation:

Contact Locations

Front face of pin insert shown



*Service Rating: M for MIL-DTL-38999

Insert Arrangement #8-35 / 9-35

Connector Type:

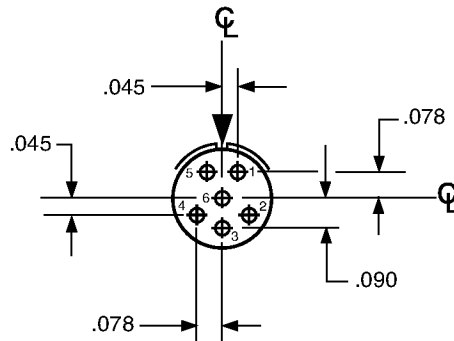
JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
8-35	9-35	9-35

Number of Contacts	Contact Size	Service Rating
6	22D	M

Insert Designation:

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147 .

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

Insert Arrangements

Insert Arrangement #8-98 / 9-98

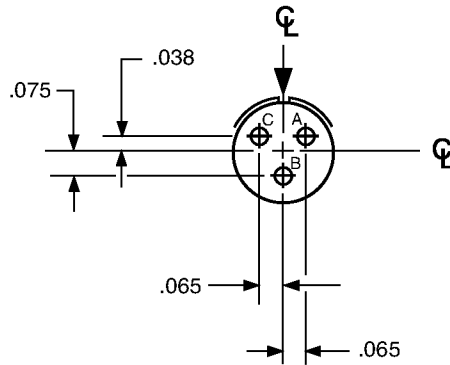
Connector Type:

JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
Insert Designation: 8-98	9-98	9-98

Number of Contacts	Contact Size	Service Rating
3	20	I

Contact Locations

Front face of pin insert shown



Insert Arrangement #10-5 / 11-5

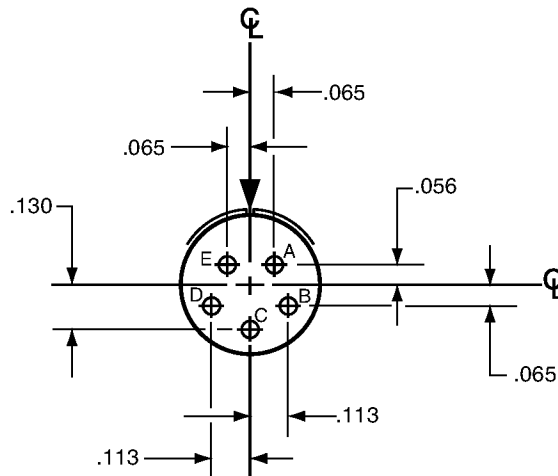
Connector Type:

JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
Insert Designation: 10-5	11-5	11-5

Number of Contacts	Contact Size	Service Rating
5	20	I

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

Insert Arrangement #10-6 / 11-6

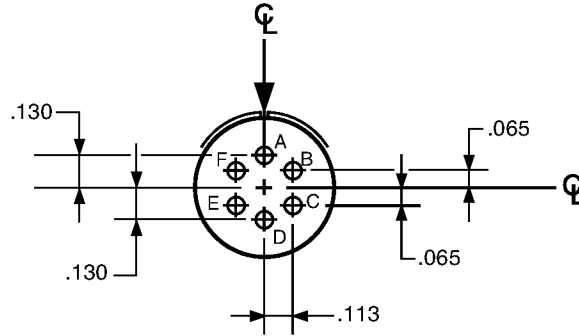
Connector Type:

JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III	
Insert Designation:	NA	11-6	NA

Number of Contacts	Contact Size	Service Rating
6	20	I

Contact Locations

Front face of pin insert shown



Insert Arrangement #10-35 / 11-35

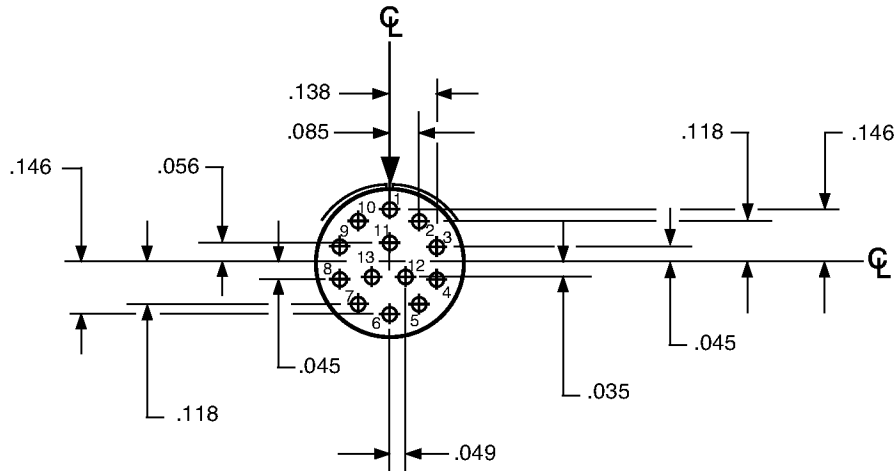
Connector Type:

JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III	
Insert Designation:	10-35	11-35	11-35

Number of Contacts	Contact Size	Service Rating
13	22D	M

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147 .
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

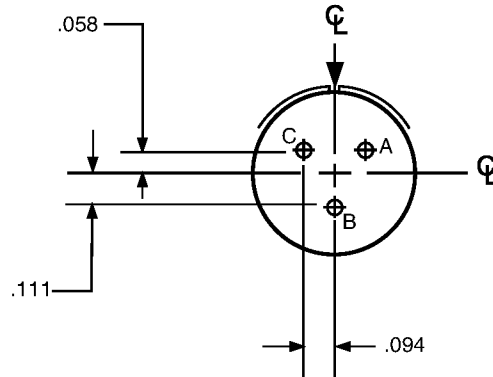
Circular Connectors – PCB Contacts

Insert Arrangements

Insert Arrangement #12-3 / 13-3

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III	Number of Contacts	Contact Size	Service Rating
	12-3	13-3	NA				3	16	II
Insert Designation:						

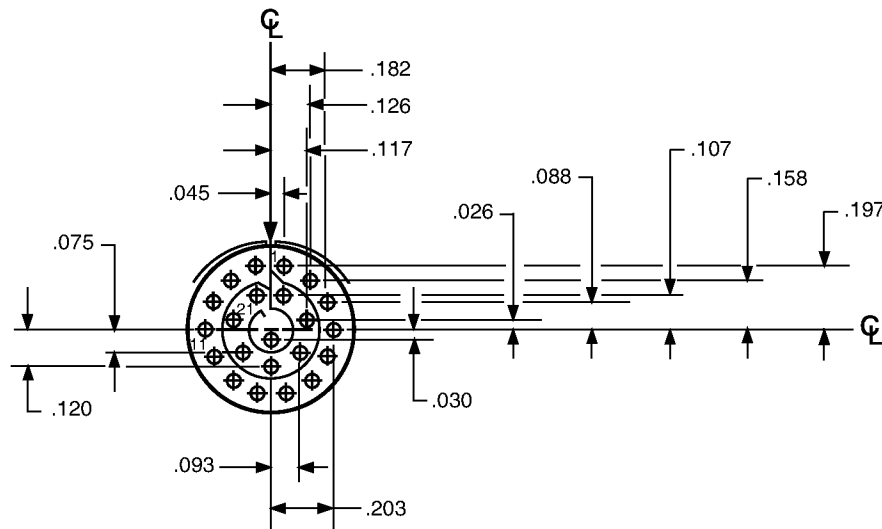
Contact Locations
Front face of pin insert shown



Insert Arrangement #12-35 / 13-35

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III	Number of Contacts	Contact Size	Service Rating
	12-35	13-35	13-35				22	22D	M
Insert Designation:						

Contact Locations
Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

38999

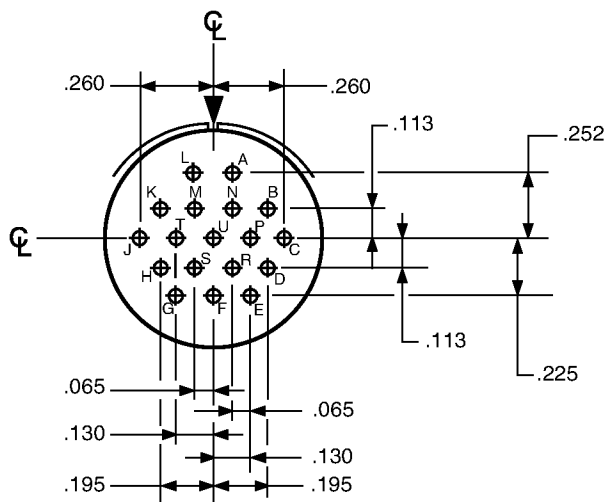
Insert Arrangement #14-18 / 15-18

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	14-18	15-18	15-18
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
18	20	I

Contact Locations

Front face of pin insert shown



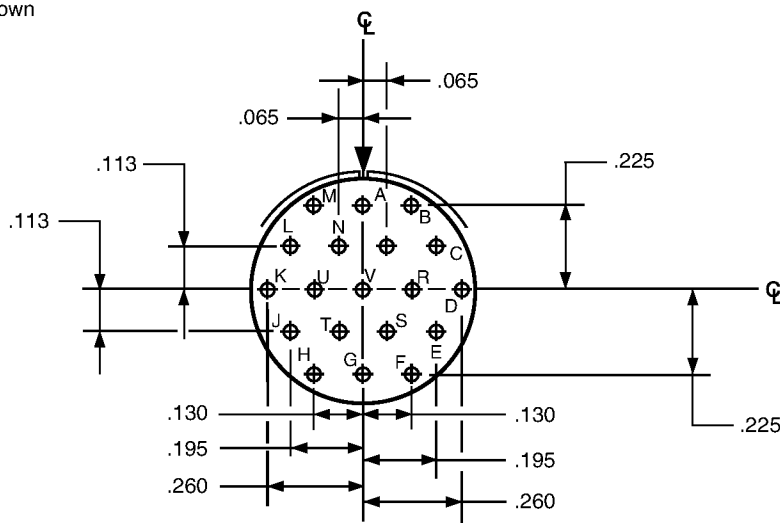
Insert Arrangement #14-19 / 15-19

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	14-19	15-19	15-19
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
19	20	I

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147 .
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

Insert Arrangements

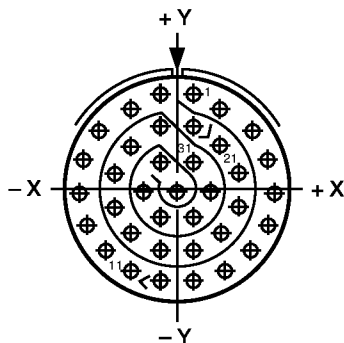
Insert Arrangement #14-35 / 15-35

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	14-35	15-35	15-35
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
37	22D	M

Contact Locations

Front face of pin insert shown



Contact Number	Location	
	X Axis	Y Axis
1	+0.045	+0.262
2	+0.123	+0.217
3	+0.211	+0.160
4	+0.254	+0.080
5	+0.266	-0.010
6	+0.247	-0.098
7	+0.200	-0.175
8	+0.130	-0.232
9	+0.045	-0.262
10	-0.045	-0.262
11	-0.130	-0.232
12	-0.200	-0.175
13	-0.247	-0.098
14	-0.266	-0.010
15	-0.254	+0.080
16	-0.211	+0.160
17	-0.123	+0.217
18	-0.045	+0.262
19	+0.045	+0.172
20	+0.123	+0.119

Contact Number	Location	
	X Axis	Y Axis
21	+0.170	+0.040
22	+0.170	-0.050
23	+0.123	-0.127
24	+0.045	-0.172
25	-0.045	-0.172
26	-0.123	-0.127
27	-0.170	-0.050
28	-0.170	+0.040
29	-0.123	+0.119
30	-0.045	+0.172
31	+0.045	+0.074
32	+0.090	-0.004
33	+0.045	-0.082
34	-0.045	-0.082
35	-0.090	-0.004
36	-0.045	+0.074
37	.000	-0.004

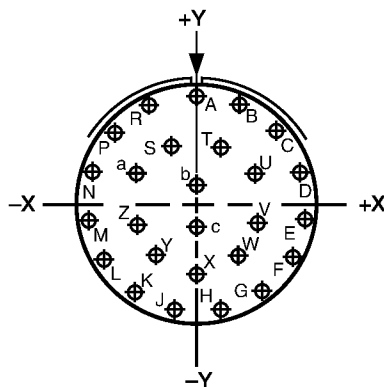
Insert Arrangement #16-26 / 17-26

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	NA	17-26	17-26
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
26	20	I

Contact Locations

Front face of pin insert shown



Contact Number	Location	
	X Axis	Y Axis
A	.000	+0.321
B	+0.131	+0.293
C	+0.239	+0.214
D	+0.305	+0.099
E	+0.319	-0.034
F	+0.278	-0.161
G	+0.189	-0.260
H	+0.067	-0.314
J	-0.067	-0.314
K	-0.189	-0.260
L	-0.278	-0.161
M	-0.319	-0.034
N	-0.305	+0.099
P	-0.239	+0.214

Contact Number	Location	
	X Axis	Y Axis
R	-0.131	+0.293
S	-0.070	+0.177
T	+0.070	+0.177
U	+0.175	+0.094
V	+0.178	-0.036
W	+0.119	-0.151
X	.000	-0.203
Y	-0.119	-0.151
Z	-0.178	-0.036
a	-0.175	+0.094
b	.000	+0.065
c	.000	-0.065

All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

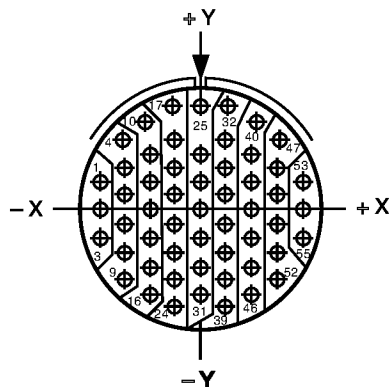
Insert Arrangement #16-35 / 17-35

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	Insert Designation:	16-35	17-35	17-35

Number of Contacts	Contact Size	Service Rating
55	22D	M

Contact Locations

Front face of pin insert shown



Contact Hole Locations		
Contact Number	Location	
	X Axis	Y Axis
1	-.312	+.086
2	-.312	-.004
3	-.312	-.094
4	-.242	+.221
5	-.234	+.131
6	-.234	+.041
7	-.234	-.049
8	-.234	-.139
9	-.234	-.229
10	-.172	+.279
11	-.156	+.176
12	-.156	+.086
13	-.156	-.004
14	-.156	-.094
15	-.156	-.184
16	-.156	-.274
17	-.089	+.316
18	-.078	+.221
19	-.078	+.131
20	-.078	+.041
21	-.078	-.049
22	-.078	-.139
23	-.078	-.229
24	-.078	-.319
25	.000	+.329
26	.000	+.176
27	.000	+.086
28	.000	-.004
29	.000	-.094
30	.000	-.184

Contact Hole Locations		
Contact Number	Location	
	X Axis	Y Axis
31	.000	-.274
32	+.089	+.316
33	+.078	+.221
34	+.078	+.131
35	+.078	+.041
36	+.078	-.049
37	+.078	-.139
38	+.078	-.229
39	+.078	-.319
40	+.172	+.279
41	+.156	+.176
42	+.156	+.086
43	+.156	-.004
44	+.156	-.094
45	+.156	-.184
46	+.156	-.274
47	+.242	+.221
48	+.234	+.131
49	+.234	+.041
50	+.234	-.049
51	+.234	-.139
52	+.234	-.229
53	+.312	+.086
54	+.312	-.004
55	+.312	-.094

All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

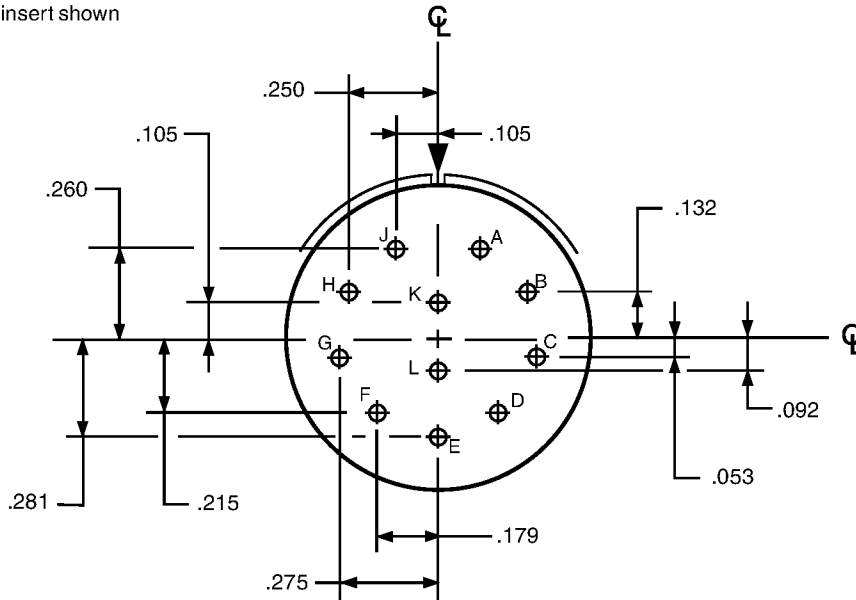
Insert Arrangements

Insert Arrangement #18-11 / 19-11

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	18-11	19-11	19-11
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
11	16	II

Contact Locations
Front face of pin insert shown

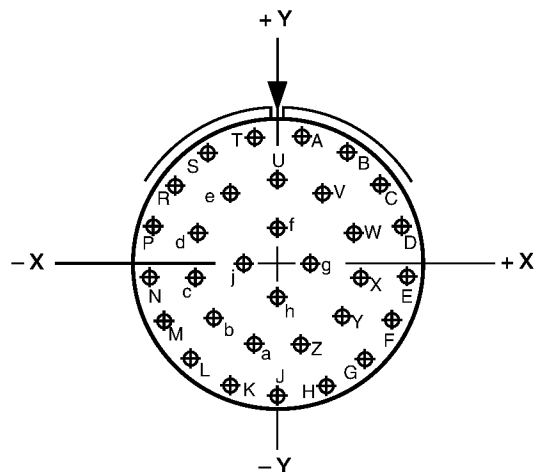


Insert Arrangement #18-32 / 19-32

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	18-32	19-32	19-32
Insert Designation:			

Number of Contacts	Contact Size	Service Rating
32	20	I

Contact Locations
Front face of pin insert shown



Contact Hole Locations		
Contact Letter	Location	
	X Axis	Y Axis
A	+066	+353
B	+189	+305
C	+286	+217
D	+345	+098
E	+357	-.033
F	+321	-.160
G	+242	-.265
H	+130	-.335
J	.000	-.359
K	-.130	-.335
L	-.242	-.265
M	-.321	-.160
N	-.357	-.033
P	-.345	+098
R	-.286	+217
S	-.189	+305

Contact Hole Locations		
Contact Letter	Location	
	X Axis	Y Axis
T	-.066	+353
U	.000	+230
V	+124	+193
W	+209	+095
X	+228	-.033
Y	+174	-.151
Z	+065	-.221
a	-.065	-.221
b	-.174	-.151
c	-.228	-.033
d	-.209	+095
e	-.124	+193
f	.000	+096
g	+096	.000
h	.000	-.096
j	-.096	.000

All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

38999

Insert Arrangement #18-35 / 19-35

Connector Type:

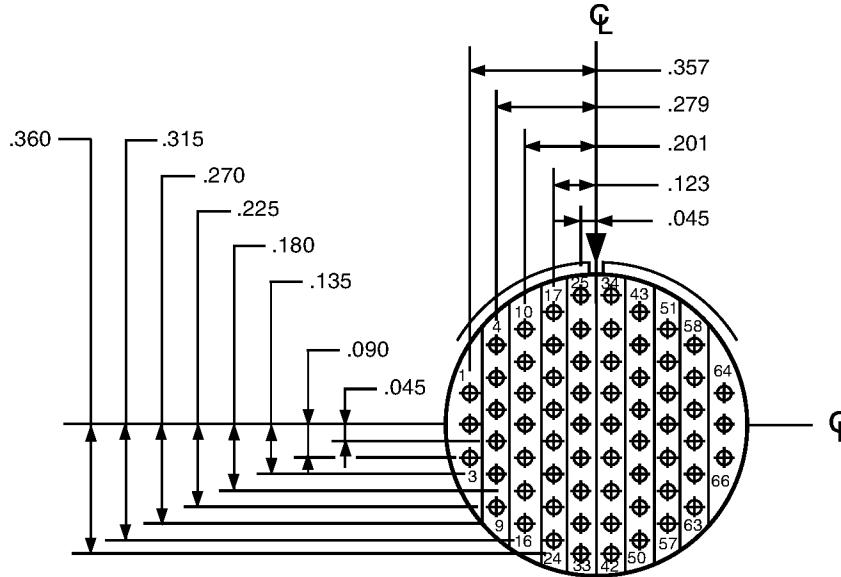
JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
18-35	19-35	19-35

Number of Contacts	Contact Size	Service Rating
66	22D	M

Insert Designation:

Contact Locations

Front face of pin insert shown



Insert Arrangement #20-27 / 21-27

Connector Type:

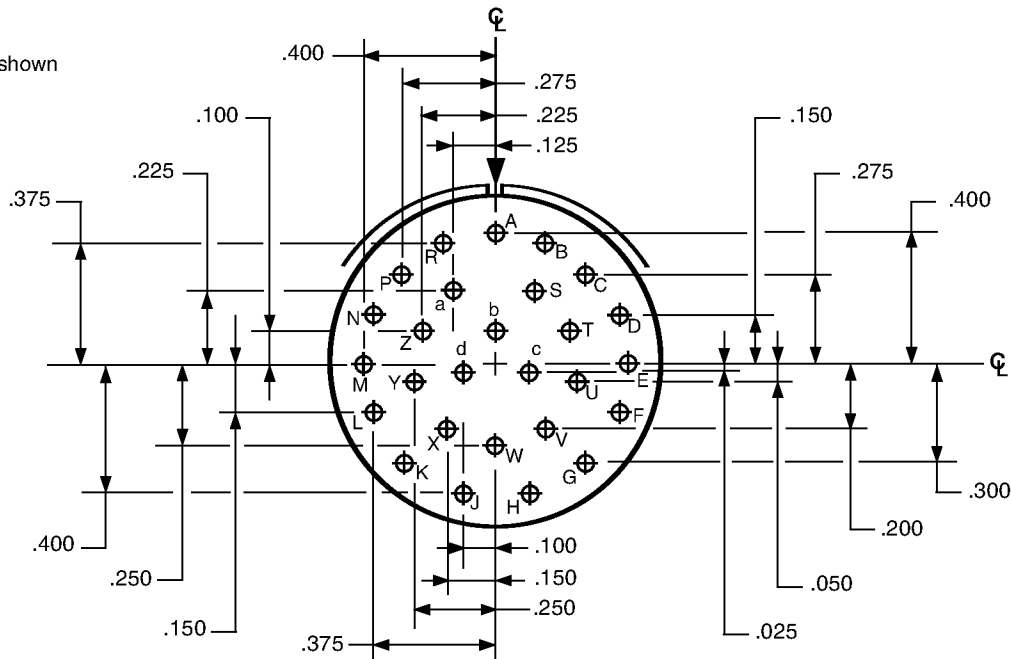
JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
20-27	21-27	NA

Number of Contacts	Contact Size	Service Rating
27	20	I

Insert Designation:

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

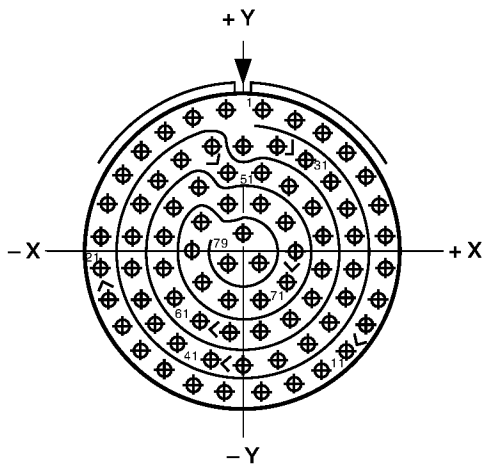
Insert Arrangements

Insert Arrangement #20-35 / 21-35

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	20-35	21-35	21-35

Number of Contacts	Contact Size	Service Rating
79	22D	M

Contact Locations
Front face of pin insert shown



Contact Hole Locations		
Contact Number	Location	
	X Axis	Y Axis
1	+0.053	+0.426
2	+0.146	+0.404
3	+0.232	+0.362
4	+0.306	+0.302
5	+0.365	+0.227
6	+0.406	+0.141
7	+0.427	+0.048
8	+0.427	-.048
9	+0.406	-.141

Contact Hole Locations		
Contact Number	Location	
	X Axis	Y Axis
10	+0.365	-.227
11	+0.306	-.302
12	+0.232	-.362
13	+0.146	-.404
14	+0.053	-.426
15	-.053	-.426
16	-.146	-.404
17	-.232	-.362
18	-.306	-.302
19	-.365	-.227
20	-.406	-.141
21	-.427	-.048
22	-.427	+0.048
23	-.406	+0.141
24	-.365	+0.227
25	-.306	+0.302
26	-.232	+0.362
27	-.146	+0.404
28	-.053	+0.426
29	.000	+0.323
30	+0.098	+0.322
31	+0.184	+0.280
32	+0.258	+0.220
33	+0.311	+0.141
34	+0.332	+0.048
35	+0.332	-.048
36	+0.311	-.141
37	+0.258	-.220
38	+0.184	-.280
39	+0.098	-.322
40	.000	-.347
41	-.098	-.322
42	-.184	-.280
43	-.258	-.220
44	-.311	-.141

Contact Hole Locations		
Contact Number	Location	
	X Axis	Y Axis
45	-.332	-.048
46	-.332	+0.048
47	-.311	+0.141
48	-.258	+0.220
49	-.184	+0.280
50	-.098	+0.322
51	-.048	+0.241
52	+0.048	+0.241
53	+0.134	+0.199
54	+0.208	+0.139
55	+0.237	+0.048
56	+0.237	-.048
57	+0.208	-.139
58	+0.134	-.199
59	+0.048	-.241
60	-.048	-.241
61	-.134	-.199
62	-.208	-.139
63	-.237	-.048
64	-.237	+0.048
65	-.208	+0.139
66	-.134	+0.199
67	-.048	+0.146
68	+0.048	+0.146
69	+0.125	+0.090
70	+0.155	.000
71	+0.125	-.090
72	+0.048	-.146
73	-.048	-.146
74	-.125	-.090
75	-.155	.000
76	-.125	+0.090
77	.000	+0.053
78	+0.048	-.029
79	-.048	-.029

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

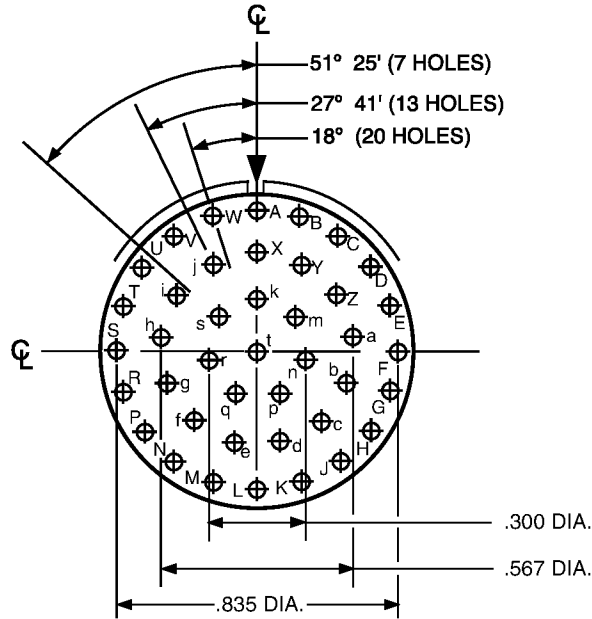
All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999 Insert Arrangement #20-41 / 21-41

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
Insert Designation:	20-41	21-41	21-41

Number of Contacts	Contact Size	Service Rating
41	20	I

Contact Locations
Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

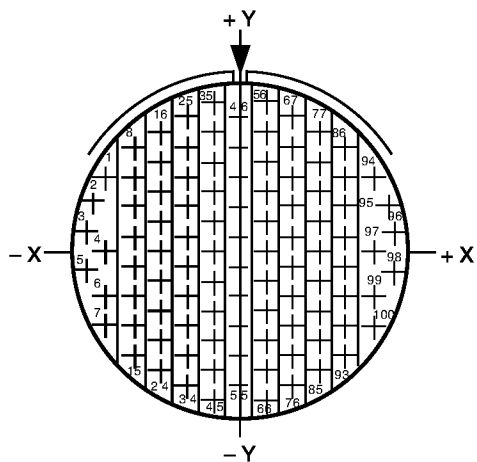
Insert Arrangements

Insert Arrangement #22-35 / 23-35

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	22-35	23-35	23-35

Number of Contacts	Contact Size	Service Rating
100	22D	M

Contact Locations
Front face of pin insert shown



Contact Number	Location	
	X Axis	Y Axis
1	-0.428	+0.241
2	-0.467	+0.154
3	-0.488	+0.061
4	-0.415	.000
5	-0.488	-0.061
6	-0.428	-0.142
7	-0.428	-0.237
8	-0.332	+0.333
9	-0.332	+0.238
10	-0.332	+0.143
11	-0.332	+0.048
12	-0.332	-0.047
13	-0.332	-0.142
14	-0.332	-0.237
15	-0.332	-0.332
16	-0.249	+0.380
17	-0.249	+0.285
18	-0.249	+0.190
19	-0.249	+0.095
20	-0.249	.000

Contact Number	Location	
	X Axis	Y Axis
21	-0.249	-0.095
22	-0.249	-0.190
23	-0.249	-0.285
24	-0.249	-0.380
25	-0.166	+0.428
26	-0.166	+0.333
27	-0.166	+0.238
28	-0.166	+0.143
29	-0.166	+0.048
30	-0.166	-0.047
31	-0.166	-0.142
32	-0.166	-0.237
33	-0.166	-0.332
34	-0.166	-0.427
35	-0.083	+0.475
36	-0.083	+0.380
37	-0.083	+0.285
38	-0.083	+0.190
39	-0.083	+0.095
40	-0.083	.000
41	-0.083	-0.095
42	-0.083	-0.190
43	-0.083	-0.285
44	-0.083	-0.380
45	-0.083	-0.475
46	.000	+0.428
47	.000	+0.333
48	.000	+0.238
49	.000	+0.143
50	.000	+0.048
51	.000	-0.047
52	.000	-0.142
53	.000	-0.237
54	.000	-0.332
55	.000	-0.427
56	+0.083	+0.475
57	+0.083	+0.380
58	+0.083	+0.285
59	+0.083	+0.190
60	+0.083	+0.095

Contact Number	Location	
	X Axis	Y Axis
61	+0.083	.000
62	+0.083	-0.095
63	+0.083	-0.190
64	+0.083	-0.285
65	+0.083	-0.380
66	+0.083	-0.475
67	+0.166	+0.428
68	+0.166	+0.333
69	+0.166	+0.238
70	+0.166	+0.143
71	+0.166	+0.048
72	+0.166	-0.047
73	+0.166	-0.142
74	+0.166	-0.237
75	+0.166	-0.332
76	+0.166	-0.427
77	+0.249	+0.380
78	+0.249	+0.285
79	+0.249	+0.190
80	+0.249	+0.095
81	+0.249	.000
82	+0.249	-0.095
83	+0.249	-0.190
84	+0.249	-0.285
85	+0.249	-0.380
86	+0.332	+0.333
87	+0.332	+0.238
88	+0.332	+0.143
89	+0.332	+0.048
90	+0.332	-0.047
91	+0.332	-0.142
92	+0.332	-0.237
93	+0.332	-0.332
94	+0.428	+0.241
95	+0.467	+0.154
96	+0.488	+0.061
97	+0.415	.000
98	+0.488	-0.061
99	+0.428	-0.142
100	+0.428	-0.237

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

Insert Arrangement #22-55 / 23-55

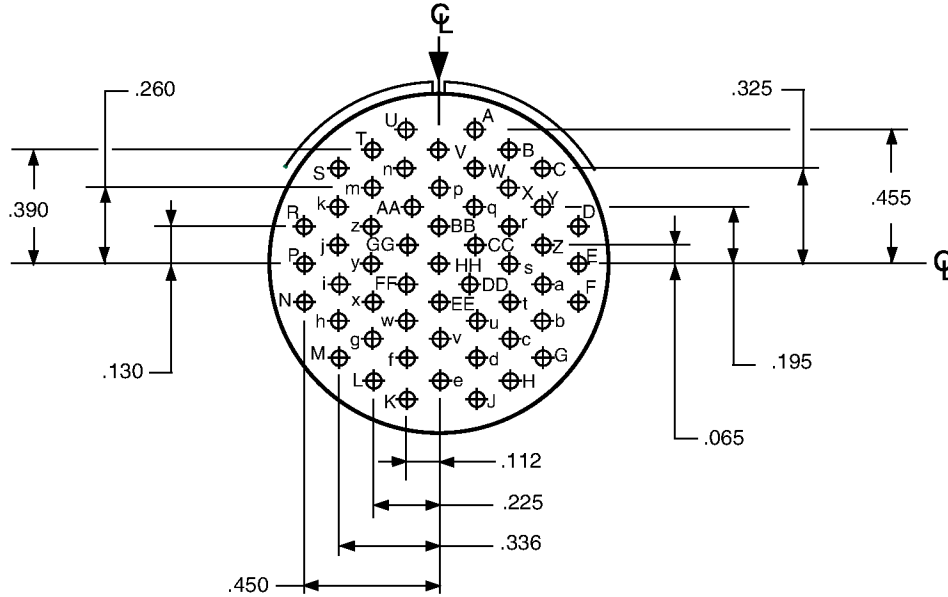
Connector Type:

JT	LJT	Tri-Start
MIL-DTL-38999 Series II	MIL-DTL-38999 Series I	MIL-DTL-38999 Series III
Insert Designation:		
22-55	23-55	23-55

Number of Contacts	Contact Size	Service Rating
55	20	I

Contact Locations

Front face of pin insert shown



Insert Arrangement #24-31 / 25-31

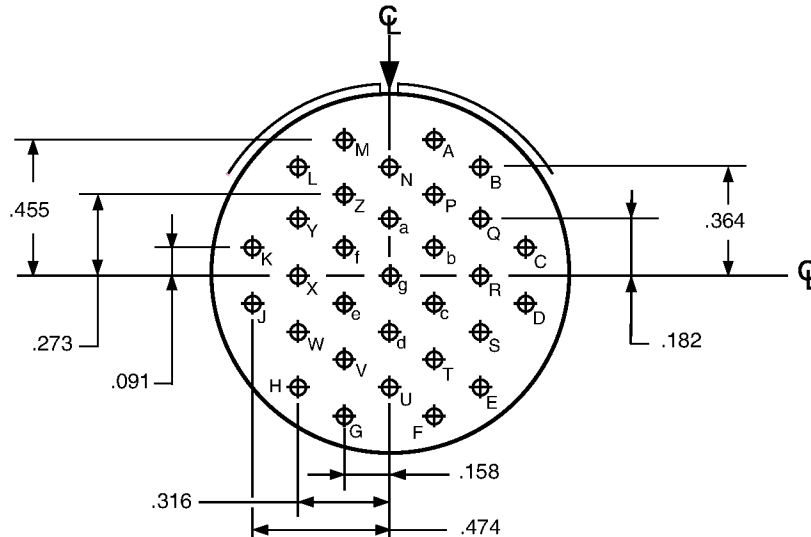
Connector Type:

JT	LJT	Tri-Start
MIL-DTL-38999 Series II	MIL-DTL-38999 Series I	MIL-DTL-38999 Series III
Insert Designation:		
24-31	NA	NA

Number of Contacts	Contact Size	Service Rating
31	16	I

Contact Locations

Front face of pin insert shown



All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Circular Connectors – PCB Contacts

Insert Arrangements

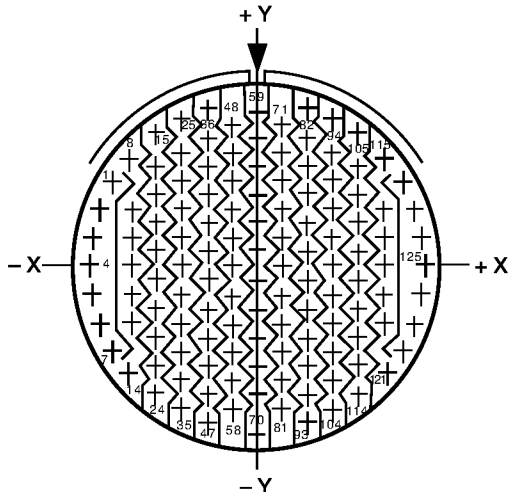
Insert Arrangement #24-35 / 25-35

Connector Type:	JT	LJT	Tri-Start
	MIL-DTL-38999 Series II	MIL-DTL-38999 Series I	MIL-DTL-38999 Series III
Insert Designation:	24-35	25-35	25-35

Number of Contacts	Contact Size	Service Rating
128	22D	M

Contact Locations

Front face of pin insert shown



Contact Number	Location	
	X Axis	Y Axis
1	-.479	+.279
2	-.520	+.190
3	-.546	+.095
4	-.555	.000
5	-.546	-.095
6	-.520	-.190
7	-.479	-.279
8	-.424	+.357
9	-.415	+.190
10	-.415	+.095
11	-.415	.000
12	-.415	-.095
13	-.415	-.190
14	-.424	-.357
15	-.332	+.444
16	-.332	+.332
17	-.332	+.237
18	-.332	+.142
19	-.332	+.047
20	-.332	-.047
21	-.332	-.142
22	-.332	-.237
23	-.332	-.332
24	-.332	-.427
25	-.249	+.496
26	-.249	+.380
27	-.249	+.285
28	-.249	+.190

Contact Number	Location	
	X Axis	Y Axis
29	-.249	+.095
30	-.249	.000
31	-.249	-.095
32	-.249	-.190
33	-.249	-.285
34	-.249	-.380
35	-.249	-.475
36	-.160	+.531
37	-.166	+.427
38	-.166	+.332
39	-.166	+.237
40	-.166	+.142
41	-.166	+.047
42	-.166	-.047
43	-.166	-.142
44	-.166	-.237
45	-.166	-.332
46	-.166	-.427
47	-.166	-.522
48	-.083	+.475
49	-.083	+.380
50	-.083	+.285
51	-.083	+.190
52	-.083	+.095
53	-.083	.000
54	-.083	-.095
55	-.083	-.190
56	-.083	-.285
57	-.083	-.380
58	-.083	-.475
59	.000	+.522
60	.000	+.427
61	.000	+.332
62	.000	+.237
63	.000	+.142
64	.000	+.047
65	.000	-.047
66	.000	-.142
67	.000	-.237
68	.000	-.332
69	.000	-.427
70	.000	-.555
71	+.083	+.475
72	+.083	+.380
73	+.083	+.285
74	+.083	+.190
75	+.083	+.095
76	+.083	.000
77	+.083	-.095
78	+.083	-.190

Contact Number	Location	
	X Axis	Y Axis
79	+.083	-.285
80	+.083	-.380
81	+.083	-.475
82	+.160	+.531
83	+.166	+.427
84	+.166	+.332
85	+.166	+.237
86	+.166	+.142
87	+.166	+.047
88	+.166	-.047
89	+.166	-.142
90	+.166	-.237
91	+.166	-.332
92	+.166	-.427
93	+.166	-.522
94	+.249	+.496
95	+.249	+.380
96	+.249	+.285
97	+.249	+.190
98	+.249	+.095
99	+.249	.000
100	+.249	-.095
101	+.249	-.190
102	+.249	-.285
103	+.249	-.380
104	+.249	-.475
105	+.332	+.444
106	+.332	+.332
107	+.332	+.237
108	+.332	+.142
109	+.332	+.047
110	+.332	-.047
111	+.332	-.142
112	+.332	-.237
113	+.332	-.332
114	+.332	-.427
115	+.424	+.357
116	+.415	+.190
117	+.415	+.095
118	+.415	.000
119	+.415	-.095
120	+.415	-.190
121	+.424	-.357
122	+.479	+.279
123	+.520	+.190
124	+.546	+.095
125	+.555	.000
126	+.546	-.095
127	+.520	-.190
128	+.479	-.279

All dimensions for reference only. For alternate rotations see page 147.

Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix I Pyle

26500
Pyle

5015
Camp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

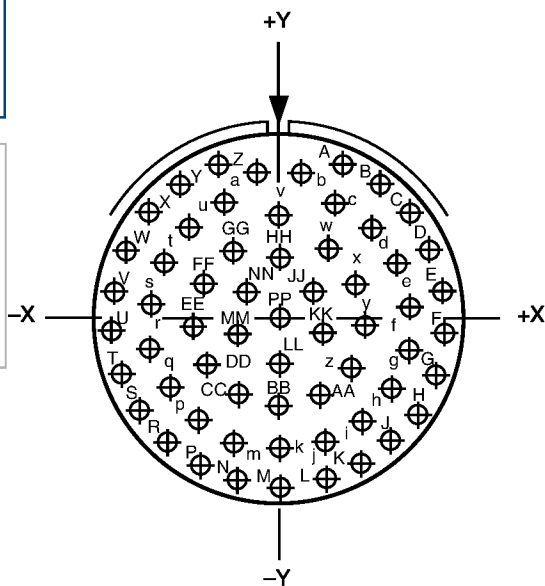
38999

Insert Arrangement #24-61 / 25-61

Connector Type:	JT MIL-DTL-38999 Series II	LJT MIL-DTL-38999 Series I	Tri-Start MIL-DTL-38999 Series III
	Insert Designation:	24-61	25-61	25-61

Number of Contacts	Contact Size	Service Rating
61	20	I

Contact Locations Front face of pin insert shown



Contact Number	Location	
	X Axis	Y Axis
A	+ .196	+ .500
B	+ .314	+ .435
C	+ .413	+ .343
D	+ .485	+ .230
E	+ .527	+ .101
F	+ .536	- .030
G	+ .511	- .164
H	+ .454	- .287
J	+ .368	- .391
K	+ .259	- .470
L	+ .134	- .519
M	.000	- .537
N	- .134	- .519
P	- .259	- .470
R	- .368	- .391
S	- .454	- .287
T	- .511	- .164
U	- .536	- .030
V	- .527	+ .101
W	- .485	+ .230
X	- .413	+ .343
Y	- .314	+ .435
Z	- .196	+ .500
a	- .068	+ .454
b	+ .068	+ .454
c	+ .173	+ .363
d	+ .285	+ .283
e	+ .362	+ .175
f	+ .399	+ .046

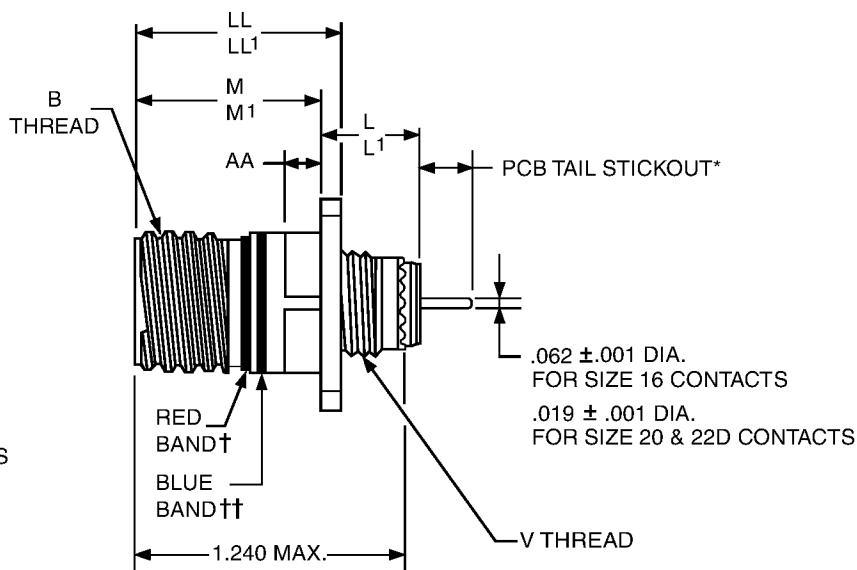
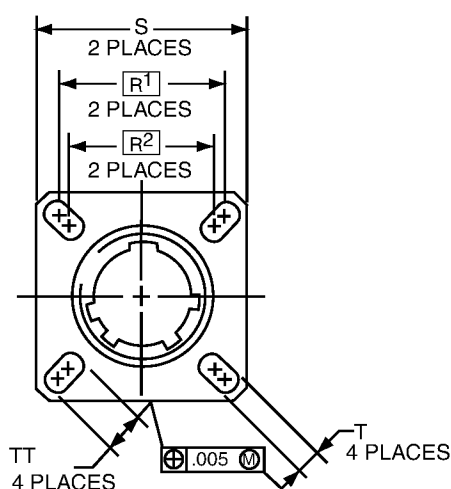
Contact Number	Location	
	X Axis	Y Axis
g	+ .392	- .088
h	+ .341	- .213
i	+ .251	- .314
j	+ .133	- .379
k	.000	- .402
m	- .133	- .379
n	- .251	- .314
p	- .341	- .213
q	- .392	- .088
r	- .399	+ .046
s	- .362	+ .175
t	- .285	+ .283
u	- .173	+ .363
v	.000	+ .338
w	+ .147	+ .223
x	+ .237	+ .122
y	+ .267	- .010
z	+ .228	- .139
AA	+ .131	- .233
BB	.000	- .267
CC	- .131	- .233
DD	- .228	- .139
EE	- .267	- .010
FF	- .237	+ .122
GG	- .147	+ .223
HH	.000	+ .200
JJ	+ .105	+ .094
KK	+ .135	- .041
LL	.000	- .132
MM	- .135	- .041
NN	- .105	+ .094
PP	.000	.000

All dimensions for reference only. For alternate rotations see page 147.
Note: Shown in this catalog are the most common insert patterns for PCB applications. For availability of other arrangements, consult Amphenol Aerospace.

Wall Mounting Receptacle (Back Panel Mounting)

Series III TV

38999



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	76X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **761-769**, designates size 9-25 shell size.
Example: **761**= Size 9 Shell

Shell Size	Coded Shell Size	B Thread Class 2A (Plated) 0.1P-0.3L-TS	L Max. (TV)	L ¹ Max. (CTV)	M +.000 - .005 (TV)	M ¹ +.000 - .005 (CTV)	R1	R2	S Max.	T +.008 - .006	V Thread Metric	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL ¹ ±.005 (CTV)	TT +.008 - .006
9	761	.6250	.469	.514	.820	.773	.719	.594	.948	.128	M12X1-6g	.234	.905	.908	.216
11	762	.7500	.469	.514	.820	.773	.812	.719	1.043	.128	M15X1-6g	.234	.905	.908	.194
13	763	.8750	.469	.514	.820	.773	.906	.812	1.137	.128	M18X1-6g	.234	.905	.908	.194
15	764	1.0000	.469	.514	.820	.773	.969	.906	1.232	.128	M22X1-6g	.234	.905	.908	.173
17	765	1.1875	.469	.514	.820	.773	1.062	.969	1.323	.128	M25X1-6g	.234	.905	.908	.194
19	766	1.2500	.469	.514	.820	.773	1.156	1.062	1.449	.128	M28X1-6g	.234	.905	.908	.194
21	767	1.3750	.500	.545	.790	.741	1.250	1.156	1.575	.128	M31X1-6g	.204	.905	.904	.194
23	768	1.5000	.500	.545	.790	.741	1.375	1.250	1.701	.154	M34X1-6g	.204	.905	.904	.242
25	769	1.6250	.500	.545	.790	.741	1.500	1.375	1.823	.154	M37X1-6g	.204	.905	.904	.242

All dimensions for reference only.
Most common options are shown; other options are available.

□ Designates true position dimensioning
† Red band indicates fully mated
†† Blue band indicates rear release contact retention system

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Camp Rear Release Matrix

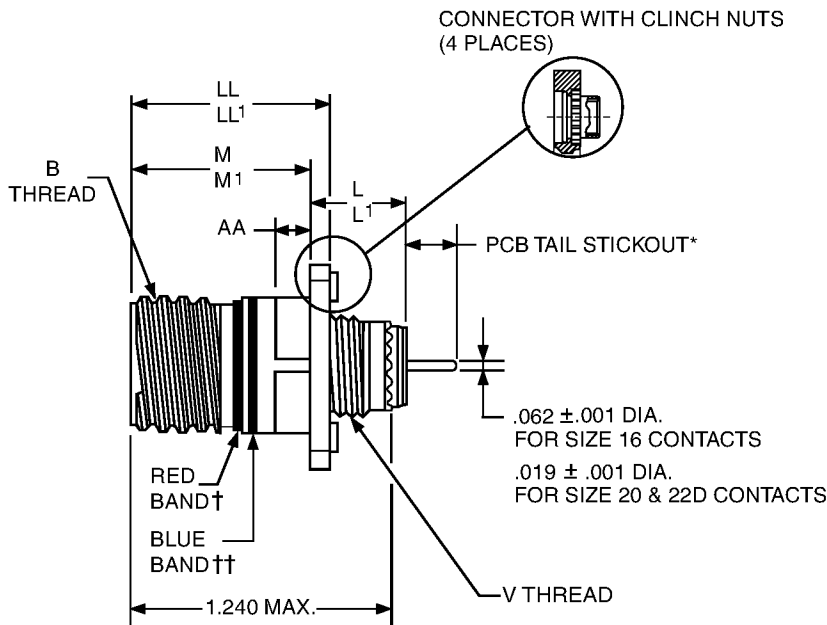
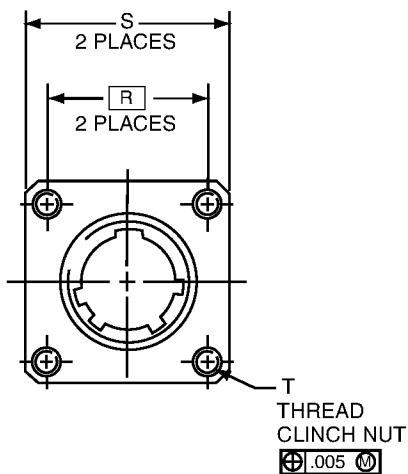
22992
Class 1

Back-Shell's

Options
Others

Wall Mounting Receptacle (Back Panel Mounting) (With Clinch Nuts)

Series III TV



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	628	74X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

628	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below 741-749, designates size 9-25 shell size. Example: **741**= Size 9 Shell

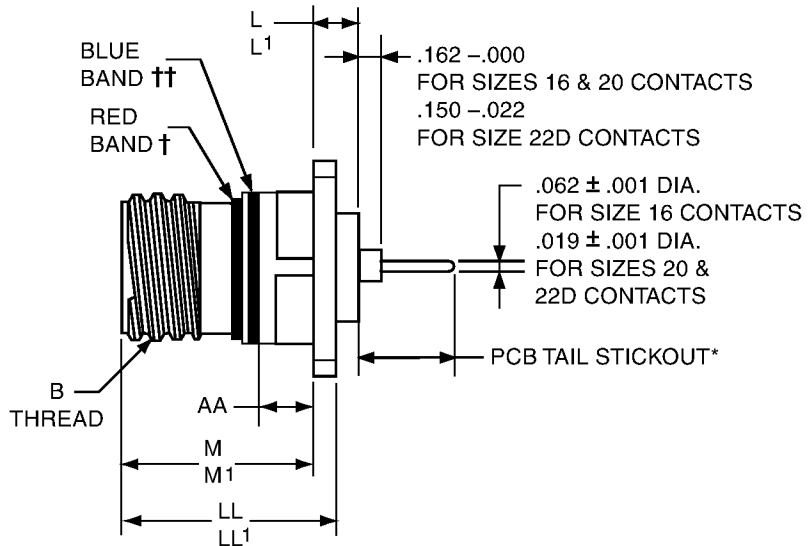
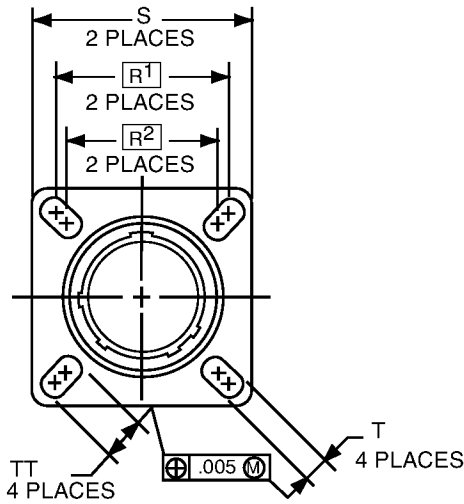
Shell Size	Coded Shell Size	B Thread Class 2A (Plated) 0.1P-0.3L-TS	L Max. (TV)	L' Max. (CTV)	M +.000 - .005 (TV)	M' +.000 - .005 (CTV)	R	S Max.	T Thread	V Thread Metric	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL' ±.005 (CTV)
9	741	.6250	.469	.514	.820	.773	.719	1.094	.112-40UNC-3B	M12X1-6g	.234	.905	.908
11	742	.7500	.469	.514	.820	.773	.812	1.187	.112-40UNC-3B	M15X1-6g	.234	.905	.908
13	743	.8750	.469	.514	.820	.773	.906	1.281	.112-40UNC-3B	M18X1-6g	.234	.905	.908
15	744	1.0000	.469	.514	.820	.773	.969	1.344	.112-40UNC-3B	M22X1-6g	.234	.905	.908
17	745	1.1875	.469	.514	.820	.773	1.062	1.437	.112-40UNC-3B	M25X1-6g	.234	.905	.908
19	746	1.2500	.469	.514	.820	.773	1.156	1.531	.112-40UNC-3B	M28X1-6g	.234	.905	.908
21	747	1.3750	.500	.545	.790	.741	1.250	1.625	.112-40UNC-3B	M31X1-6g	.204	.905	.904
23	748	1.5000	.500	.545	.790	.741	1.375	1.750	.138-32UNC-3B	M34X1-6g	.204	.905	.904
25	749	1.6250	.500	.545	.790	.741	1.500	1.875	.138-32UNC-3B	M37X1-6g	.204	.905	.904

All dimensions for reference only.
Consult Amphenol for more information on ordering connectors with clinch nuts.
Most common options are shown; other options are available.

□ Designates true position dimensioning
† Red band indicates fully mated
†† Blue band indicates rear release contact retention system

Box Mounting Receptacle

Series III TV



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	77X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **771-779**, designates size 9-25 shell size.

Example: **771**= Size 9 Shell

Shell Size	Coded Shell Size	B Thread Class 2A (Plated) 0.1P-0.3L-TS	L Max. (TV)	L ¹ Max. (CTV)	M +.000 - .005 (TV)	M ¹ +.000 - .005 (CTV)	R1	R2	S Max.	T +.008 - .006	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL ¹ ±.005 (CTV)	TT ±.008
9	771	.6250	.205	.250	.820	.773	.719	.594	.948	.128	.234	.905	.908	.216
11	772	.7500	.205	.250	.820	.773	.812	.719	1.043	.128	.234	.905	.908	.194
13	773	.8750	.205	.250	.820	.773	.906	.812	1.137	.128	.234	.905	.908	.194
15	774	1.0000	.205	.250	.820	.773	.969	.906	1.232	.128	.234	.905	.908	.173
17	775	1.1875	.205	.250	.820	.773	1.062	.969	1.323	.128	.234	.905	.908	.194
19	776	1.2500	.205	.250	.820	.773	1.156	1.062	1.449	.128	.234	.905	.908	.194
21	777	1.3750	.235	.280	.790	.741	1.250	1.156	1.575	.128	.204	.905	.904	.194
23	778	1.5000	.235	.280	.790	.741	1.375	1.250	1.701	.154	.204	.905	.904	.242
25	779	1.6250	.235	.280	.790	.741	1.500	1.375	1.823	.154	.204	.905	.904	.242

All dimensions for reference only.
Most common options are shown; other options are available.

- Designates true position dimensioning
- † Red band indicates fully mated
- †† Blue band indicates rear release contact retention system

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

Box Mounting Receptacle (With Clinch Nuts)

38999

Series III TV

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

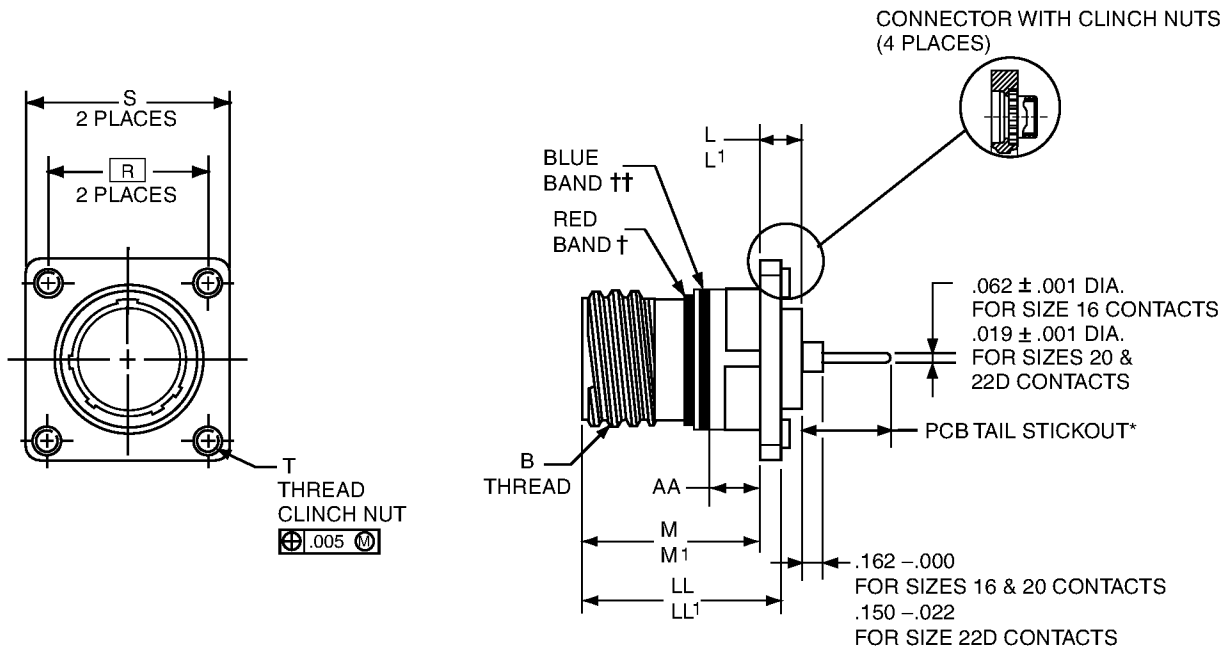
- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	628	75 X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

628	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **751-759**, designates size 9-25 shell size.
Example: **751**= Size 9 Shell

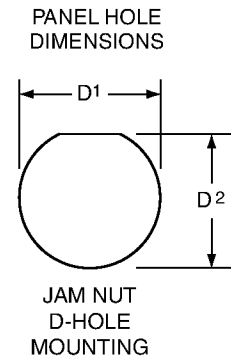
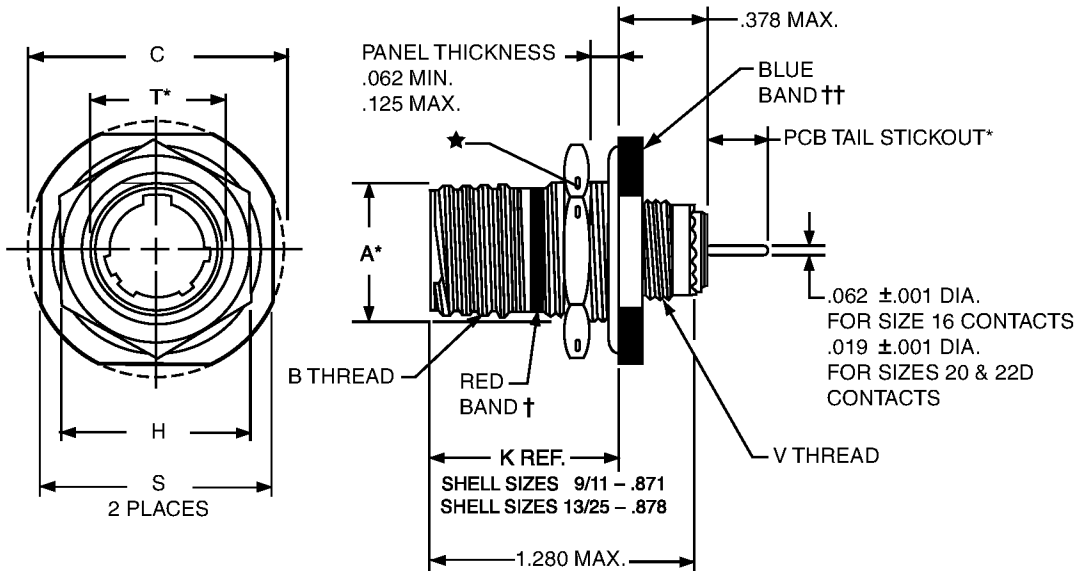
Shell Size	Coded Shell Size	B Thread Class 2A (Plated) 0.1P-0.3L-TS	L Max. (TV)	L ¹ Max. (CTV)	M +.000 - .005 (TV)	M ¹ +.000 - .005 (CTV)	R	S Max.	T Thread	AA Max. Panel Thickness	LL +.006 - .000 (TV)	LL ¹ +.006 - .000 (CTV)
9	751	.6250	.205	.250	.820	.773	.719	1.031	.112-40UNC-3B	.234	.905	.908
11	752	.7500	.205	.250	.820	.773	.812	1.125	.112-40UNC-3B	.234	.905	.908
13	753	.8750	.205	.250	.820	.773	.906	1.172	.112-40UNC-3B	.234	.905	.908
15	754	1.0000	.205	.250	.820	.773	.969	1.281	.112-40UNC-3B	.234	.905	.908
17	755	1.1875	.205	.250	.820	.773	1.062	1.375	.112-40UNC-3B	.234	.905	.908
19	756	1.2500	.205	.250	.820	.773	1.156	1.469	.112-40UNC-3B	.234	.905	.908
21	757	1.3750	.235	.280	.790	.741	1.250	1.562	.112-40UNC-3B	.204	.905	.904
23	758	1.5000	.235	.280	.790	.741	1.375	1.750	.112-40UNC-3B	.204	.905	.904
25	759	1.6250	.235	.280	.790	.741	1.500	1.875	.112-40UNC-3B	.204	.905	.904

All dimensions for reference only.
Most common options are shown; other options are available.

- Designates true position dimensioning
- † Red band indicates fully mated
- †† Blue band indicates rear release contact retention system

Jam Nut Receptacle

Series III TV 38999



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	78X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **781-789**, designates size 9-25 shell size. Example: **781**= Size 9 Shell

Shell Size	Coded Shell Size	A* +.000 - .010	B Thread Class 2A (Plated) 0.1P-0.3L-TS	C Max.	D ¹ +.010 - .000	D ² +.010 - .000	H Hex +.017 - .016	S ±.010	T +.010 - .000	V Thread Metric
9	781	.669	.6250	1.199	.700	.670	.875	1.062	.697	M12X1-6g
11	782	.769	.7500	1.386	.825	.770	1.000	1.250	.822	M15X1-6g
13	783	.955	.8750	1.511	1.010	.955	1.188	1.375	1.007	M18X1-6g
15	784	1.084	1.0000	1.636	1.135	1.085	1.312	1.500	1.134	M22X1-6g
17	785	1.208	1.1875	1.761	1.260	1.210	1.438	1.625	1.259	M25X1-6g
19	786	1.333	1.2500	1.949	1.385	1.335	1.562	1.812	1.384	M28X1-6g
21	787	1.459	1.3750	2.073	1.510	1.460	1.688	1.938	1.507	M31X1-6g
23	788	1.575	1.5000	2.199	1.635	1.585	1.812	2.062	1.634	M34X1-6g
25	789	1.709	1.6250	2.323	1.760	1.710	2.000	2.188	1.759	M37X1-6g

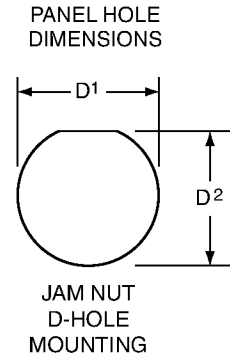
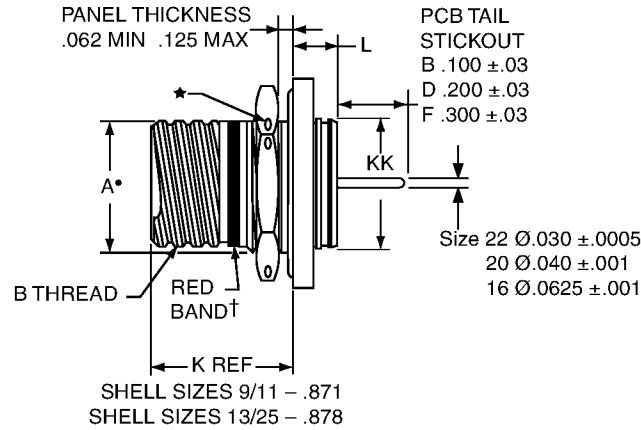
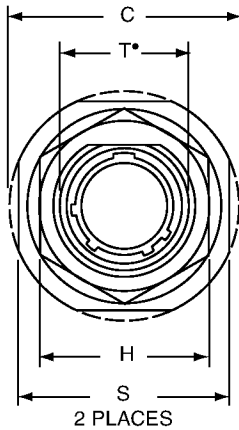
All dimensions for reference only. Most common options are shown; other options are available.
 † Red band indicates fully mated
 †† Blue band indicates rear release contact retention system
 ★ .059 dia. min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
 **"D" shaped mounting hole dimensions

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables
EMI Filter
Transient
Matrix 2
26482
Matrix 1 Pyle
83723 III
Pyle
26500
Crimp Rear Release Matrix
5015
Class 1
22992
Back-Shells
Options Others

Jam Nut Receptacle

38999

Series III TV



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB**

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shells

- Options Others

PART #	1. Base Number	2. Coded Shell Size	3. Insert Arrangement	4. Contact Type/Alt. Keying Positions	5. Shell Finish	6. Tail Length
See chart below	10-626	47X	-35	P	7	B

HOW TO ORDER

1. Base Number:

10-626	Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail
--------	---

2. Select a Coded Shell Size:

See chart below **471-479**, designates size 9-25 shell size.

3. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell Size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
-----	--------------------------------------

4. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

5. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

6. Select a Tail Length:

B	100 ±.03
D	.200 ±.03
F	.300 ±.03

† Red band indicates fully mated
★.059 dia. min. (1.5 dia. min.) 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.

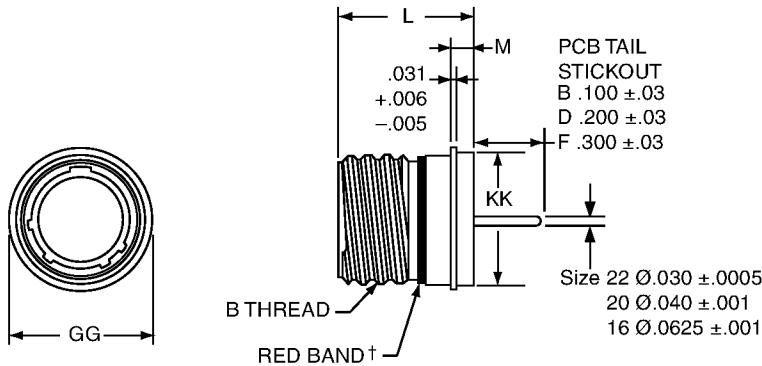
Shell Size	Part Number	A* +.000 -.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	D1 +.010 -.000	D1 +.000 -.010	H Hex +.017 -.016	L Max	S ±.010	T* +.010 -.000	KK +.011 -.000
9	10-626471-XXX	.669	.6250	1.199	.700	.670	.875	.357	1.062	.697	.642
11	472-XXX	.769	.7500	1.386	.825	.770	1.000	.357	1.250	.822	.766
13	473-XXX	.955	.8750	1.511	1.010	.955	1.188	.357	1.375	1.007	.892
15	474-XXX	1.084	1.0000	1.636	1.135	1.085	1.312	.357	1.500	1.134	1.018
17	475-XXX	1.208	1.1875	1.761	1.260	1.210	1.438	.357	1.625	1.259	1.142
19	476-XXX	1.333	1.2500	1.949	1.385	1.335	1.562	.381	1.182	1.384	1.268
21	477-XXX	1.459	1.3750	2.073	1.510	1.460	1.688	.381	1.938	1.507	1.392
23	478-XXX	1.575	1.5000	2.199	1.635	1.585	1.812	.381	2.062	1.634	1.518
25	479-XXX	1.709	1.6250	2.323	1.760	1.710	2.000	.381	2.188	1.759	1.642

All dimensions for reference only.

Solder Mounting Receptacle

Series III TV

38999



PART #

See chart below

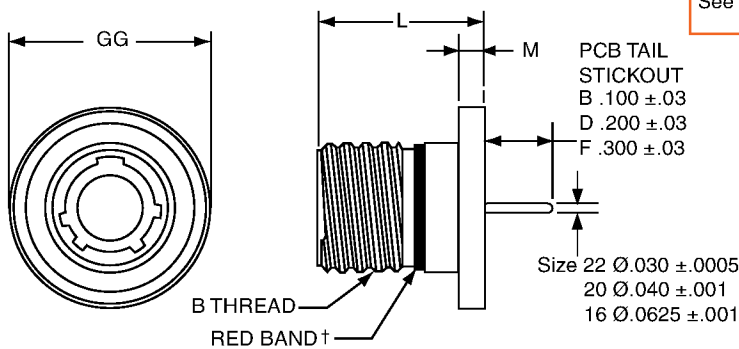
1.	2.	3.	4.	5.	6.
Base Number	Shell Size	Insert Arrg.	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	481	-35	P	1	B

Follow HOW TO ORDER instructions below.

† Red band indicates fully mated

Shell Size	Part Number	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 - .005	M +.006 - .005	GG Dia. +.011 - .010	KK Dia. +.011 - .005
9	10-626481-XXX	.6250	.806	.125	.750	.672
11	482-XXX	.7500	.806	.125	.844	.781
13	483-XXX	.8750	.806	.125	.969	.906
15	484-XXX	1.0000	.806	.125	1.094	1.031
17	485-XXX	1.1875	.806	.125	1.218	1.156
19	486-XXX	1.2500	.806	.125	1.312	1.250
21	487-XXX	1.3750	.806	.125	1.438	1.375
23	488-XXX	1.5000	.838	.156	1.563	1.500
25	489-XXX	1.6250	.838	.156	1.688	1.625

38999, Series III Hermetic, Stainless Steel - PCB Contacts TVSHIY Weld Mounting Receptacle



PART #

See chart below

1.	2.	3.	4.	5.	6.
Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	491	-35	P	1	B

HOW TO ORDER

1. Base Number:

10-626 Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. Select a Coded Shell Size:

See chart below **491-499**, designates size 9-25 shell size.

3. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell Size and the second number is the Insert Arrangement.

-35 Designates Insert Arrangement Number

4. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

5. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	*Hermetic seal, Stainless Steel w/Nickel Plate
3	*Carbon Steel w/reflowed tin plate

6. Select a Tail Length:

B	.100±.03
D	.200±.03
F	.300±.03

† Red band indicates fully mated

Shell Size	Part Number	B Thread Class 2A 0.1P-0.3L-TS (Plated)	L +.011 - .000	M +.006 - .005	GG Dia. +.011 - .010
9	10-626491-XXX	.6250	.806	.125	.973
11	492-XXX	.7500	.806	.125	1.095
13	493-XXX	.8750	.806	.125	1.221
15	494-XXX	1.0000	.806	.125	1.347
17	495-XXX	1.1875	.806	.125	1.434
19	496-XXX	1.2500	.806	.125	1.579
21	497-XXX	1.3750	.806	.125	1.721
23	498-XXX	1.5000	.838	.156	1.886
25	499-XXX	1.6250	.838	.156	1.973

* Not available for weld mount

All dimensions for reference only.

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2
83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options Others

Box Mounting Receptacle

38999

Series III TV

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB**

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

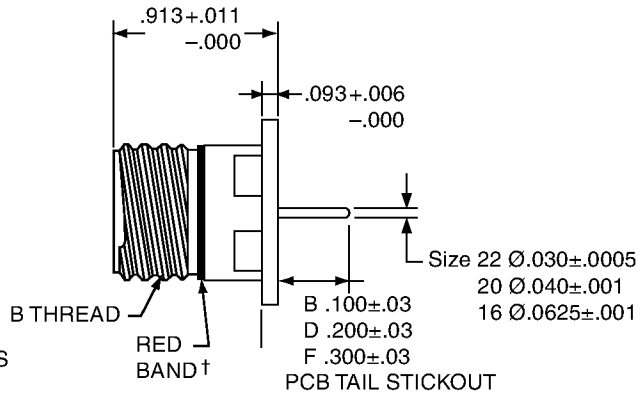
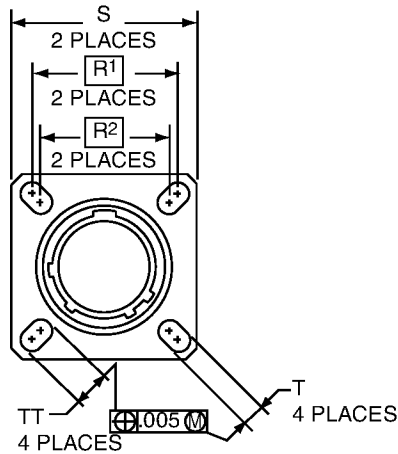
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others



- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

PART #

See chart below

Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	501	-35	P	1	B

HOW TO ORDER

1. Base Number:

10-626	Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail
---------------	---

2. Select a Coded Shell Size:

See chart below **501-509**, designates size 9-25 shell size.
Example: **501** = Size 9 Shell

3. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell Size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
------------	--------------------------------------

4. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

5. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

6. Select a Tail Length:

B	.100±.03
D	.200±.03
F	.300±.03

Shell Size	Part Number	B Thread 0.1P-0.3L-TS (Plated)	R1	R2	S ±.010	T ±.008	TT ±.008
9	10-626 501 -XXX	.6250	.719	.594	.938	.128	.216
11	502 -XXX	.7500	.812	.719	1.031	.128	.194
13	503 -XXX	.8750	.906	.812	1.125	.128	.194
15	504 -XXX	1.0000	.969	.906	1.219	.128	.173
17	505 -XXX	1.1875	1.062	.969	1.312	.128	.194
19	506 -XXX	1.2500	1.156	1.062	1.438	.128	.194
21	507 -XXX	1.3750	1.250	1.156	1.562	.128	.194
23	508 -XXX	1.5000	1.375	1.250	1.688	.154	.242
25	509 -XXX	1.6250	1.500	1.375	1.812	.154	.242

† Red band indicates fully mated

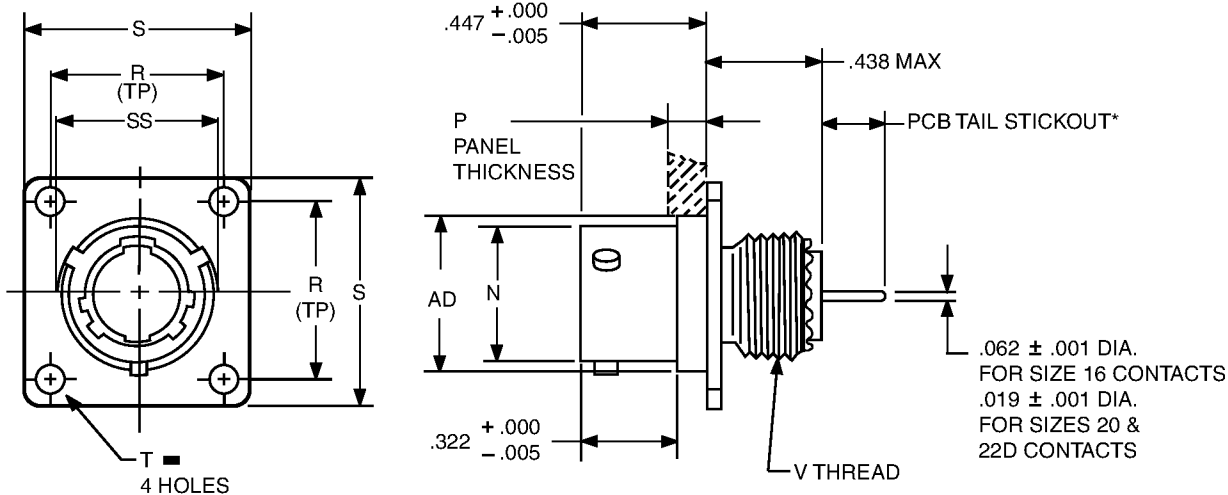
NOTE: Consult Amphenol Aerospace for availability of non-glass-sealed versions with printed circuit tail contacts.

All dimensions for reference.

Designates true position dimensioning

Wall Mounting Receptacle

Series II JT



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	73X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **731-739**, designates size 9-25 shell size. Example: **731**= Size 9 Shell

4. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
-----	--------------------------------------

5. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

⊕ .005 DIA (M)

Shell Size	Coded Shell Size	N +.001 -.005	P Max. Panel Thickness	R (TP)	S ±.016	T Dia. ±.005	V Thread Class 2A (Plated)	AD Dia. ±.005	SS Dia. +.000 -.016
8	731	.473	.142	.594	.812	.120	.4375-28 UNEF	.516	.563
10	732	.590	.142	.719	.938	.120	.5625-24 UNEF	.633	.680
12	733	.750	.142	.812	1.031	.120	.6875-24 UNEF	.802	.859
14	734	.875	.142	.906	1.125	.120	.8125-20 UNEF	.927	.984
16	735	1.000	.142	.969	1.219	.120	.9375-20 UNEF	1.052	1.108
18	736	1.125	.142	1.062	1.312	.120	1.0625-18 UNEF	1.177	1.233
20	737	1.250	.142	1.156	1.438	.120	1.1875-18 UNEF	1.302	1.358
22	738	1.375	.142	1.250	1.562	.120	1.3125-18 UNEF	1.427	1.483
24	739	1.500	.142	1.375	1.688	.147	1.4375-18 UNEF	1.552	1.610

All dimensions for reference only. Most common options are shown; other options are available.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

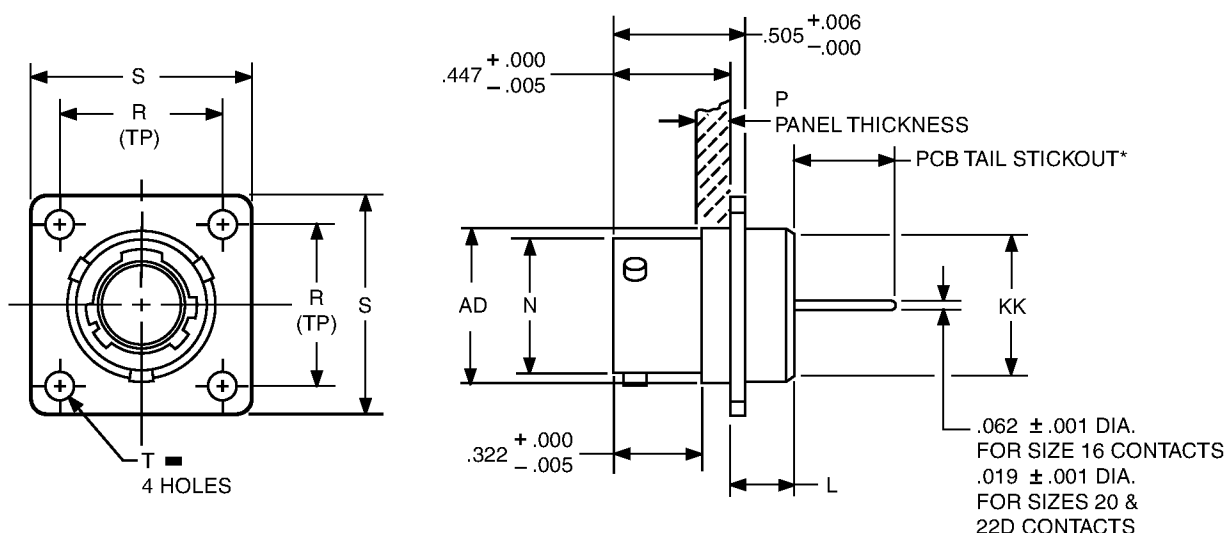
Back-Shells

Options Others

Box Mounting Receptacle (Back Panel Mounting)

38999

Series II JT



	1.	2.	3.	4.	5.
PART #	Shell Finish	Base Number	Coded Shell Size	Insert Arrangement	Contact Type/Alt. Keying Positions
See chart below	88/91	569	74X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
------------	-------------

3. Select a Coded Shell Size:

See chart below **741-749**, designates size 9-25 shell size.
Example: **741**= Size 9 Shell

■ (+) .005 DIA (M)

4. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
------------	--------------------------------------

5. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

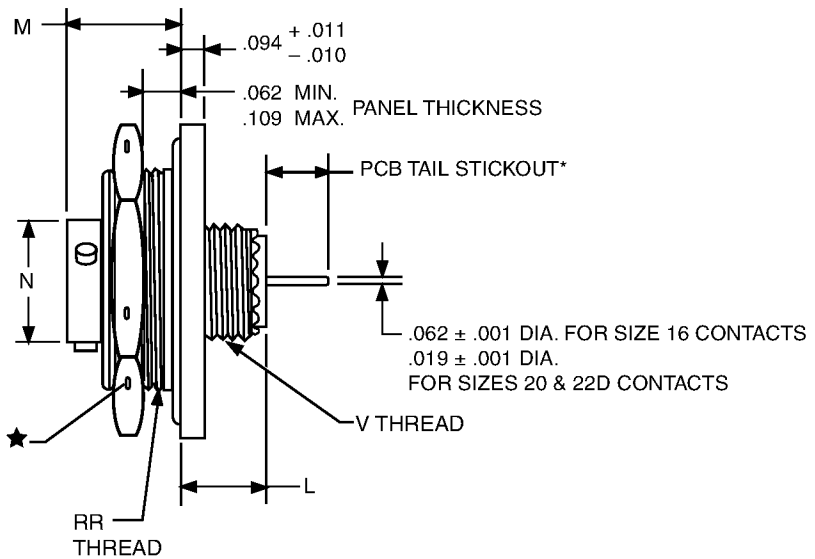
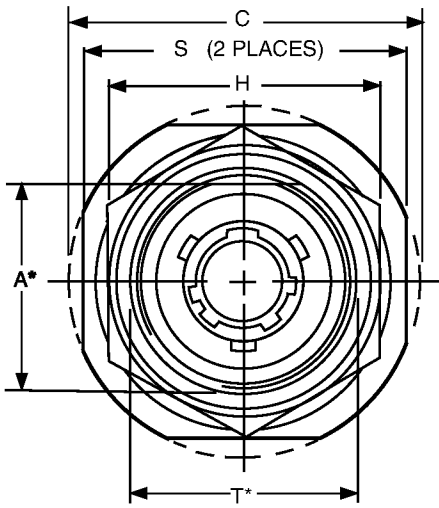
Shell Size	Coded Shell Size	L Max.	N +.001 / -.005	P Max. Panel Thickness	R (TP)	S ±.016	T Dia. ±.005	AD Dia. ±.005	KK Dia. Max.
8	741	.225	.473	.147	.594	.812	.120	.516	.531
10	742	.225	.590	.152	.719	.938	.120	.633	.656
12	743	.225	.750	.152	.812	1.031	.120	.802	.828
14	744	.225	.875	.152	.906	1.125	.120	.927	.953
16	745	.225	1.000	.152	.969	1.219	.120	1.052	1.078
18	746	.225	1.125	.152	1.062	1.312	.120	1.177	1.203
20	747	.225	1.250	.179	1.156	1.438	.120	1.302	1.328
22	748	.225	1.375	.179	1.250	1.562	.120	1.427	1.453
24	749	.225	1.500	.169	1.375	1.688	.147	1.552	1.578

All dimensions for reference only.
Most common options are shown; other options are available

Jam Nut Receptacle

Series II JT

38999



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	75X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below 751-759, designates size 9-25 shell size. Example: 751 = Size 9 Shell

Shell Size	Coded Shell Size	A* +.000 / -.010	C Max.	H Hex +.017 / -.016	L Max.	M ±.005	N +.001 / -.005	S ±.016	T* +.010 / -.000	V Thread Class 2A (Plated)	RR Thread Class 2A (Plated)
8	751	.830	1.390	1.062	.453	.438	.473	1.250	.884	.4375-28 UNEF	.8750-20 UNEF
10	752	.955	1.515	1.188	.453	.438	.590	1.375	1.007	.5625-24 UNEF	1.0000-20 UNEF
12	753	1.084	1.640	1.312	.453	.438	.750	1.500	1.134	.6875-24 UNEF	1.1250-18 UNEF
14	754	1.208	1.765	1.438	.453	.438	.875	1.625	1.259	.8125-20 UNEF	1.2500-18 UNEF
16	755	1.333	1.953	1.562	.453	.438	1.000	1.781	1.384	.9375-20 UNEF	1.3750-18 UNEF
18	756	1.459	2.031	1.688	.453	.438	1.125	1.890	1.507	1.0625-18 UNEF	1.5000-18 UNEF
20	757	1.576	2.156	1.812	.422	.464	1.250	2.016	1.634	1.1875-18 UNEF	1.6250-18 UNEF
22	758	1.701	2.280	2.000	.422	.464	1.375	2.140	1.759	1.3125-18 UNEF	1.7500-18 UNS
24	759	1.826	2.405	2.125	.422	.464	1.500	2.265	1.884	1.4375-18 UNEF	1.8750-16 UN

All dimensions for reference only. Most common options are shown; other options are available

★ .059 dia. min. 3 lockwire holes.
 Formed lockwire hole design (6 holes) is optional.
 * "D" shaped mounting hole dimensions

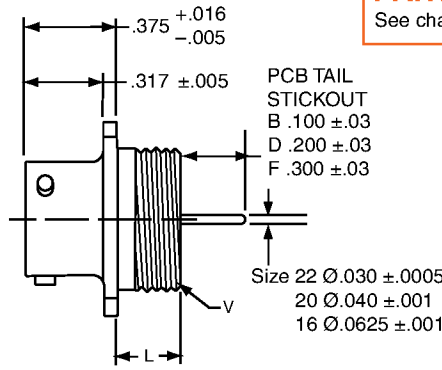
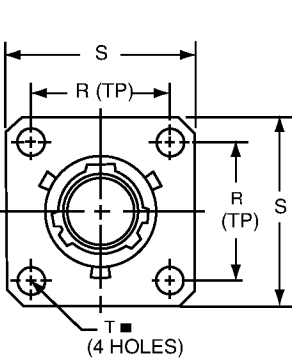
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others

Wall Mounting Receptacle

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

Series II JT



⊕ .005 DIA (M)

Shell Size	Part Number	L Max.	N +.001 -.005	R (TP)	S ±.016	T ±.005	V Thread Class 2A
8	10-626 431 -XXX	.234	.473	.594	.812	.120	.5625-24UNEF
10	432 -XXX	.234	.590	.719	.938	.120	.6875-24UNEF
12	433 -XXX	.234	.750	.812	1.031	.120	.8125-20UNEF
14	434 -XXX	.234	.875	.906	1.125	.120	.9375-20UNEF
16	435 -XXX	.234	1.000	.969	1.219	.120	1.0625-18UNEF
18	436 -XXX	.234	1.125	1.062	1.312	.120	1.1875-18UNEF
20	437 -XXX	.234	1.250	1.156	1.438	.120	1.3125-18UNEF
22	438 -XXX	.234	1.375	1.250	1.562	.120	1.4375-18UNEF
24	439 -XXX	.313	1.500	1.375	1.688	.147	1.5625-18UNEF

1. 2. 3. 4. 5. 6.

PART #	Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Ait. Keying Positions	Shell Finish	Tail Length
See chart below	10-626	431	-35	P	1	B

HOW TO ORDER

1. Base Number:

10-626	Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail
---------------	---

2. Select a Coded Shell Size:

See chart below **431-439**, designates size 9-25 shell size.

3. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell Size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
------------	--------------------------------------

4. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

5. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

6. Select a Tail Length:

B	.100±.03
D	.200±.03
F	.300±.03

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

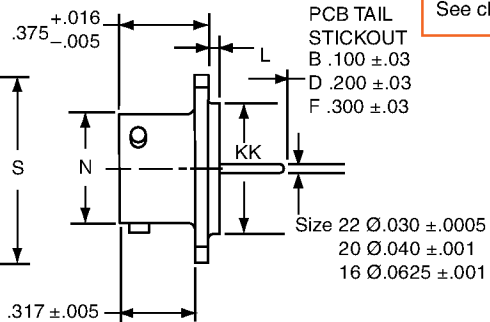
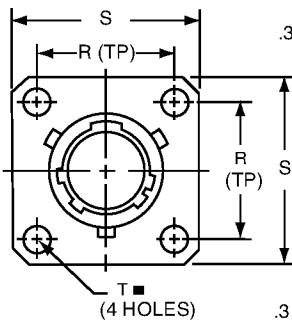
22992 Class I

Back-Shells

Options Others

38999, Series II Hermetic – PCB Contacts

JT02 Box Mounting Receptacle



⊕ .005 DIA (M)

Shell Size	Part Number	L +.006 -.015	N +.001 -.005	R (TP)	S ±.016	T ±.005	KK +.001 -.005
8	10-626461 -XXX	.051	.473	.594	.812	.120	.562
10	462 -XXX	.051	.590	.719	.938	.120	.672
12	463 -XXX	.051	.750	.812	1.031	.120	.781
14	464 -XXX	.051	.875	.906	1.125	.120	.906
16	465 -XXX	.051	1.000	.969	1.219	.120	1.031
18	466 -XXX	.051	1.125	1.062	1.312	.120	1.156
20	467 -XXX	.051	1.250	1.156	1.438	.120	1.250
22	468 -XXX	.080	1.375	1.250	1.562	.120	1.375
24	469 -XXX	.080	1.500	1.375	1.688	.147	1.500

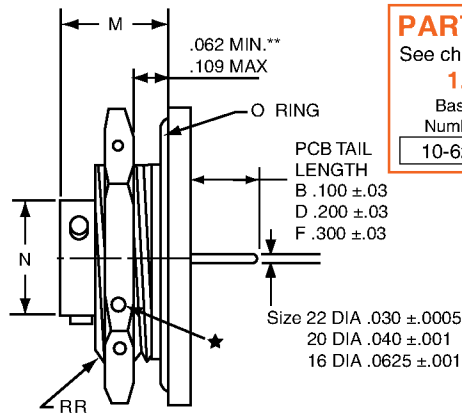
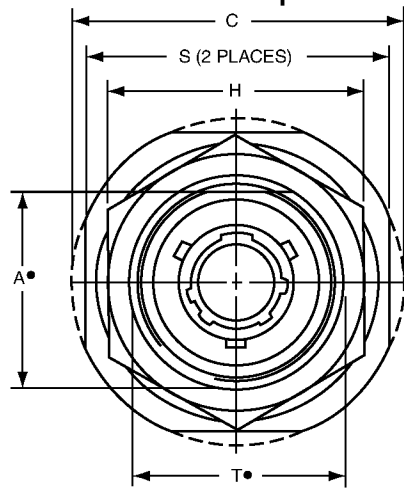
1. 2. 3. 4. 5. 6.

PART #	Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Ait. Keying Positions	Shell Finish	Tail Length
See chart below	10-626	461	-35	P	1	B

Follow HOW TO ORDER instructions above.

All dimensions for reference only.

Jam Nut Receptacle



PART

See chart below

1.	2.	3.	4.	5.	6.
Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	441	-35	P	1	B

Follow HOW TO ORDER instructions below.

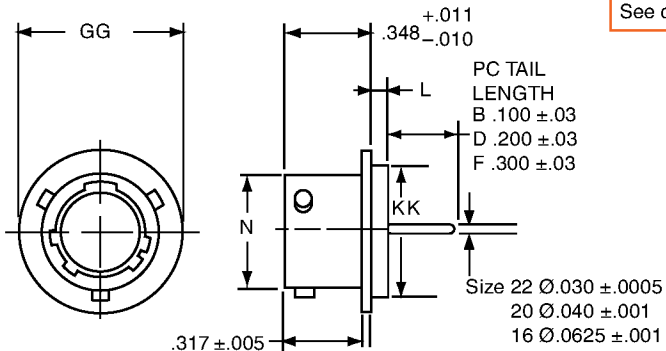
Shell Size	Part Number	A* +.000 -.010	C Max.	H +.017 -.016	M ±.005	N ±.001 -.005	S ±.016	T* +.010 -.000	RR Thread Class 2A
8	10-626441-XXX	.830	1.390	1.062	.438	.473	1.250	.884	.8750-20UNEF
10	442-XXX	.955	1.515	1.188	.438	.590	1.375	1.007	1.0000-20UNEF
12	443-XXX	1.084	1.640	1.312	.438	.750	1.500	1.134	1.1250-18UNEF
14	444-XXX	1.208	1.765	1.438	.438	.875	1.625	1.259	1.2500-18UNEF
16	445-XXX	1.333	1.953	1.562	.438	1.000	1.781	1.384	1.3750-18UNEF
18	446-XXX	1.459	2.031	1.688	.438	1.125	1.890	1.507	1.5000-18UNEF
20	447-XXX	1.576	2.156	1.812	.464	1.250	2.016	1.634	1.6250-18UNEF
22	448-XXX	1.701	2.280	2.000	.464	1.375	2.140	1.759	1.7500-18UNS
24	449-XXX	1.826	2.405	2.125	.464	1.500	2.265	1.884	1.8750-16UN

- ★ .059 Dia. Min. 3 lockwire holes. Formed lockwire hole design (6 holes) is optional.
- "D" shaped mounting hole dimensions.
- ** Panel Thickness

All dimensions for reference only.

38999, Series II Hermetic – PCB Contacts

JTI Solder Mounting Receptacle



PART

See chart below

1.	2.	3.	4.	5.	6.
Base Number	Coded Shell Size	Insert Arrg.	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	451	-35	P	1	B

HOW TO ORDER

1. Base Number:

10-626 Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. Select a Coded Shell Size:

See chart below **451-459**, designates size 9-25 shell size.

3. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell Size and the second number is the Insert Arrangement.

-35 Designates Insert Arrangement Number

4. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P Designates Pin Contacts in Normal Position

S Designates Socket Contacts in Normal Position

5. Select a Shell Finish:

1 Hermetic seal, passivated Stainless Steel, 200°C

2 Hermetic seal, Stainless Steel w/Nickel Plate

3 Carbon Steel w/reflowed tin plate

6. Select a Tail Length:

B .100±.03

D .200±.03

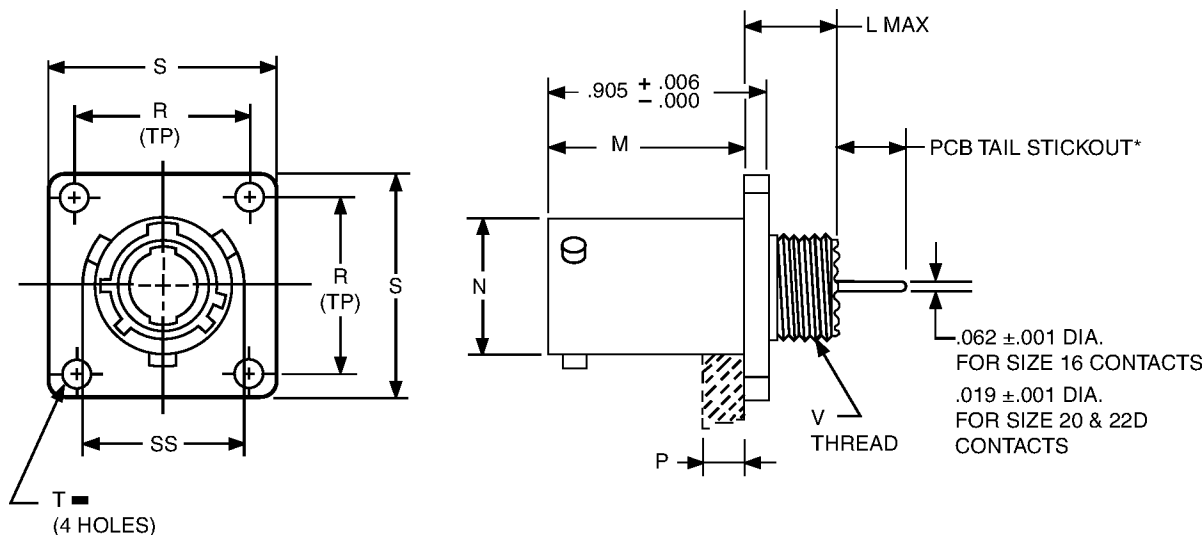
F .300±.03

Shell Size	Part Number	L +.011 -.010	N +.001 -.005	GG +.011 -.010	KK +.001 -.005
8	10-626451-XXX	.078	.473	.687	.562
10	452-XXX	.078	.590	.797	.672
12	453-XXX	.078	.750	.906	.781
14	454-XXX	.078	.875	1.031	.906
16	455-XXX	.078	1.000	1.156	1.031
18	456-XXX	.078	1.125	1.281	1.156
20	457-XXX	.078	1.250	1.375	1.250
22	458-XXX	.107	1.375	1.500	1.375
24	459-XXX	.107	1.500	1.625	1.500

All dimensions for reference only. Weld mounting hermetic receptacle also available. Consult Amphenol Aerospace for availability and dimensions.

Wall Mounting Receptacle (Back Panel Mounting)

Series I LJT



	1.	2.	3.	4.	5.
PART #	Shell Finish	Base Number	Coded Shell Size	Insert Arrangement	Contact Type/Alt. Keying Positions
See chart below	88/91	569	70X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below 701-709, designates size 9-25 shell size.
Example: 701= Size 9 Shell

4. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
-----	--------------------------------------

5. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

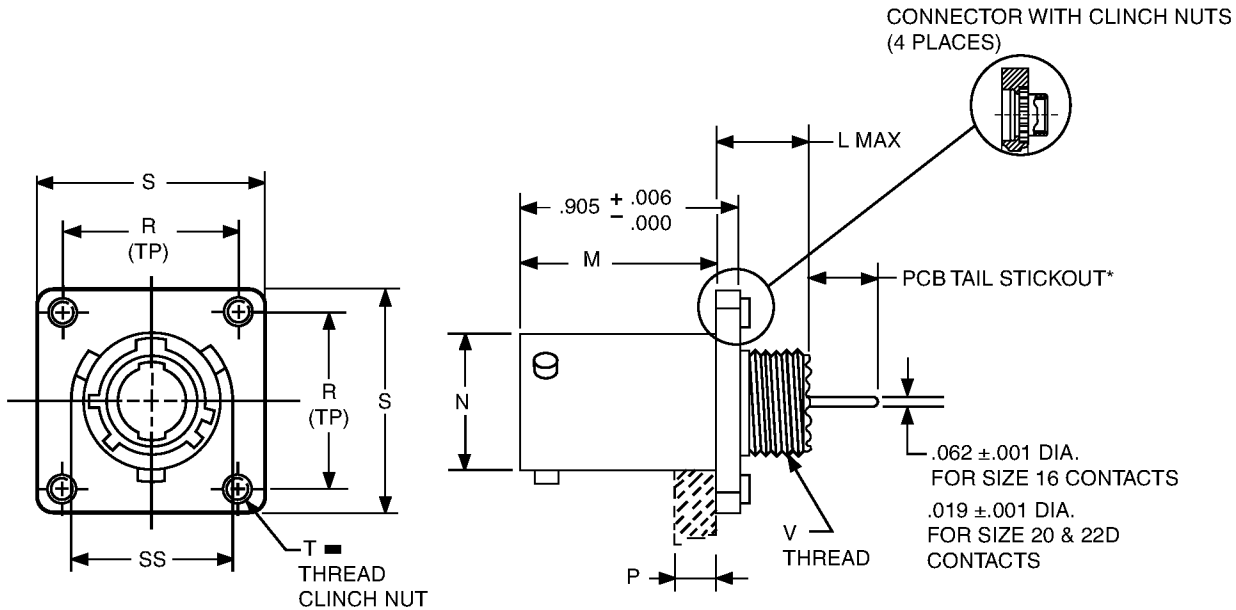
⊕ .005 DIA ⊖

Shell Size	Coded Shell Size	L Max.	M +.000 - .005	N Dia.	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Dia. ±.005	V Thread Class 2A (Plated)	SS Dia. +.000 - .016
9	701	.453	.820	.572	.234	.719	.938	.128	.4375-28 UNEF	.662
11	702	.453	.820	.700	.234	.812	1.031	.128	.5625-24 UNEF	.810
13	703	.453	.820	.850	.234	.906	1.125	.128	.6875-24 UNEF	.960
15	704	.453	.820	.975	.234	.969	1.219	.128	.8125-20 UNEF	1.085
17	705	.453	.820	1.100	.234	1.062	1.312	.128	.9375-20 UNEF	1.210
19	706	.453	.820	1.207	.234	1.156	1.438	.128	1.0625-18 UNEF	1.317
21	707	.484	.790	1.332	.204	1.250	1.562	.128	1.1875-18 UNEF	1.442
23	708	.484	.790	1.457	.204	1.375	1.688	.147	1.3125-18 UNEF	1.567
25	709	.484	.790	1.582	.193	1.500	1.812	.147	1.4375-18 UNEF	1.692

All dimensions for reference only.
Most common options are shown; other options are available.

Wall Mounting Receptacle (Back Panel Mounting) (With Clinch Nuts)

Series I LJT



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	628	70X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

628	Base Number
------------	-------------

3. Select a Coded Shell Size:

See chart below **701-709**, designates size 9-25 shell size.
Example: **701**= Size 9 Shell

⊕ .005 DIA (M)

Shell Size	Coded Shell Size	L Max.	M +.000 - .005	N Dia.	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Thread	V Thread Class 2A (Plated)	SS Dia. +.000 - .016
9	701	.453	.820	.572	.234	.719	.938	.112-40UNJC-3B	.4375-28 UNEF	.662
11	702	.453	.820	.700	.234	.812	1.031	.112-40UNJC-3B	.5625-24 UNEF	.810
13	703	.453	.820	.850	.234	.906	1.125	.112-40UNJC-3B	.6875-24 UNEF	.960
15	704	.453	.820	.975	.234	.969	1.219	.112-40UNJC-3B	.8125-20 UNEF	1.085
17	705	.453	.820	1.100	.234	1.062	1.312	.112-40UNJC-3B	.9375-20 UNEF	1.210
19	706	.453	.820	1.207	.234	1.156	1.438	.112-40UNJC-3B	1.0625-18 UNEF	1.317
21	707	.484	.790	1.332	.204	1.250	1.562	.112-40UNJC-3B	1.1875-18 UNEF	1.442
23	708	.484	.790	1.457	.204	1.375	1.688	.138-32UNJC-3B	1.3125-18 UNEF	1.567
25	709	.484	.790	1.582	.193	1.500	1.812	.138-32UNJC-3B	1.4375-18 UNEF	1.692

All dimensions for reference only.

*Consult Amphenol for more information on ordering connectors with clinch nuts. There is also a 3mm clinch nut available (part number 88/91-628401/409)

Most common options are shown; other options are available.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB**

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

Box Mounting Receptacle (Back Panel Mounting)

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB**

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

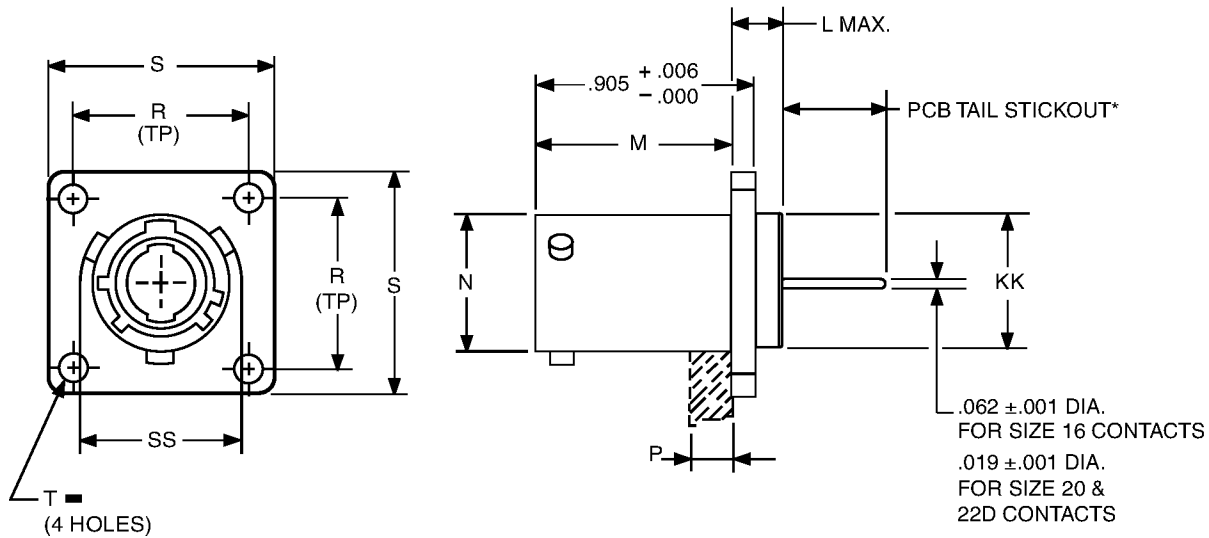
- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

Series I LJT



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	569	71X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
------------	-------------

3. Select a Coded Shell Size:

See chart below **711-719**, designates size 9-25 shell size. Example: **711**= Size 9 Shell

⊕ .005 DIA ⊖

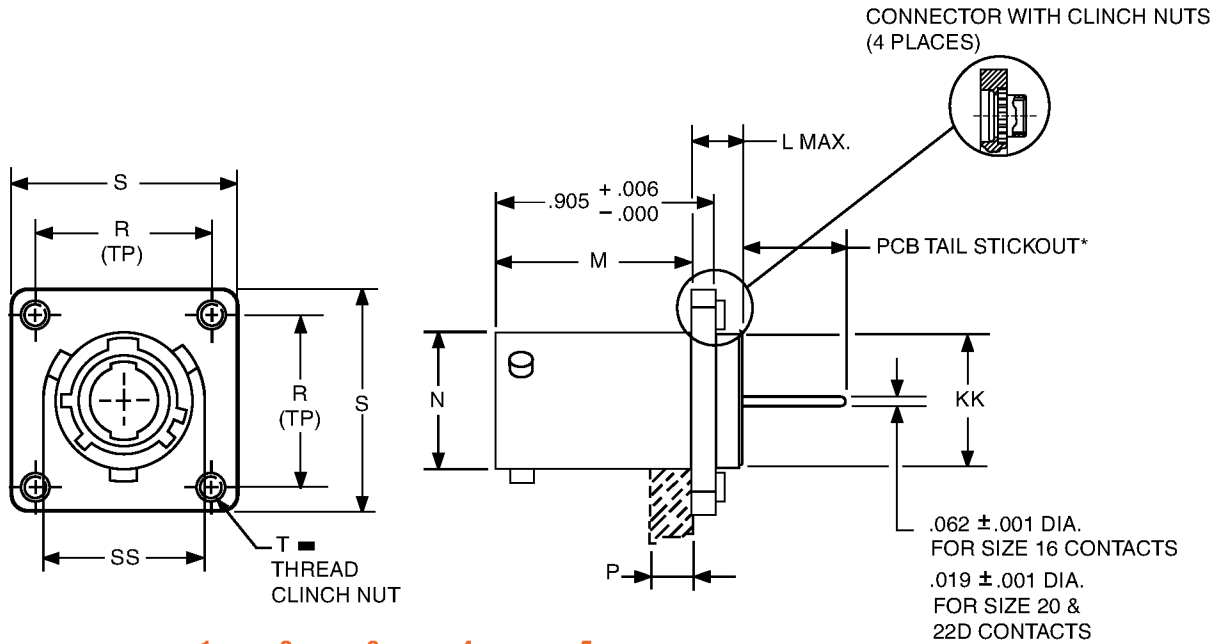
Shell Size	Coded Shell Size	L Max.	M +.000 - .005	N +.001 - .005	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Dia. ±.005	KK Dia. +.006 - .005	SS Dia. +.000 - .016
9	711	.203	.820	.572	.234	.719	.938	.128	.433	.662
11	712	.203	.820	.700	.234	.812	1.031	.128	.557	.810
13	713	.203	.820	.850	.234	.906	1.125	.128	.676	.960
15	714	.203	.820	.975	.234	.969	1.219	.128	.801	1.085
17	715	.203	.820	1.100	.234	1.062	1.312	.128	.926	1.210
19	716	.203	.820	1.207	.234	1.156	1.438	.128	1.032	1.317
21	717	.234	.790	1.332	.204	1.250	1.562	.128	1.157	1.442
23	718	.234	.790	1.457	.204	1.375	1.688	.147	1.282	1.567
25	719	.234	.790	1.582	.193	1.500	1.812	.147	1.407	1.692

All dimensions for reference only. Most common options are shown; other options are available.

Box Mounting Receptacle (Back Panel Mounting) (With Clinch Nuts)

Series I LJT

38999



PART #	1. Shell Finish	2. Base Number	3. Coded Shell Size	4. Insert Arrangement	5. Contact Type/Alt. Keying Positions
See chart below	88/91	628	71X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

628	Base Number
-----	-------------

3. Select a Coded Shell Size:

See chart below **711-719**, designates size 9-25 shell size.

Example: **711**= Size 9 Shell

4. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
-----	--------------------------------------

5. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

⊕ .005 DIA (M)

Shell Size	Coded Shell	L Max.	M +.000 - .005	N +.001 - .005	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Thread	KK Dia. +.006 - .005	SS Dia. +.000 - .016
9	711	.203	.820	.572	.234	.719	1.031	.112-40UNJC-3B	.433	.662
11	712	.203	.820	.700	.234	.812	1.125	.112-40UNJC-3B	.557	.810
13	713	.203	.820	.850	.234	.906	1.172	.112-40UNJC-3B	.676	.960
15	714	.203	.820	.975	.234	.969	1.281	.112-40UNJC-3B	.801	1.085
17	715	.203	.820	1.100	.234	1.062	1.375	.112-40UNJC-3B	.926	1.210
19	716	.203	.820	1.207	.234	1.156	1.469	.112-40UNJC-3B	1.032	1.317
21	717	.234	.790	1.332	.204	1.250	1.625	.112-40UNJC-3B	1.157	1.442
23	718	.234	.790	1.457	.204	1.375	1.750	.138-32UNJC-3B	1.282	1.567
25	719	.234	.790	1.582	.193	1.500	1.875	.138-32UNJC-3B	1.407	1.692

All dimensions for reference only.

*Consult Amphenol for more information on ordering connectors with clinch nuts. There is also a 3mm clinch nut available (part number 88/91-628410/419)

Most common options are shown; other options are available.

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

Jam Nut Receptacle

38999

Series I LJT

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix I/Pyle

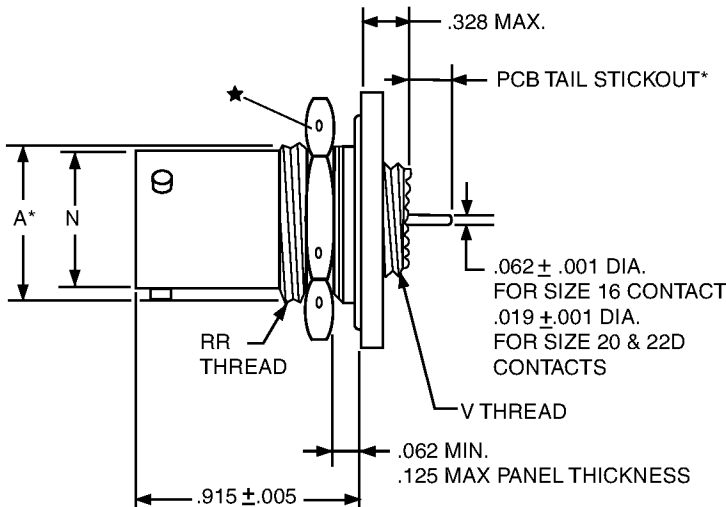
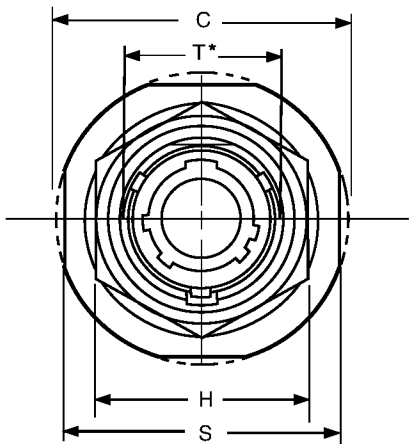
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



PART #	1.	2.	3.	4.	5.
See chart below	Shell Finish	Base Number	Coded Shell Size	Insert Arrangement	Contact Type/Alt. Keying Positions
	88/91	569	72X	-35	P

HOW TO ORDER

1. Select a Shell Finish:

88	Designates olive drab cadmium plated connector shell
91	Designates electroless nickel plated connector shell

Consult Amphenol Aerospace for ordering of composite styles.

2. Base Number:

569	Base Number
------------	-------------

3. Select a Coded Shell Size:

See chart below **721-729**, designates size 9-25 shell size. Example: **721**= Size 9 Shell

4. Select an Insert Arrangement:

Refer to insert availability chart on page 146 and pin-out illustrations on pages 148-162. In the chart the first number represents the Shell size and the second number is the Insert Arrangement.

-35	Designates Insert Arrangement Number
------------	--------------------------------------

5. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

Shell Size	Coded Shell	A* +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.001 -.005	S ±.016	T* +.010 -.000	V Thread Class 2A (Plated)	RR Thread Class 2A (Plated)
9	721	.669	1.199	.875	.625	.572	1.062	.697	.4375-28 UNEF	.6875-24 UNEF
11	722	.769	1.386	1.000	.625	.700	1.250	.822	.5625-24 UNEF	.8125-20 UNEF
13	723	.955	1.511	1.188	.625	.850	1.375	1.007	.6875-24 UNEF	1.0000-20 UNEF
15	724	1.084	1.636	1.312	.625	.975	1.500	1.134	.8125-20 UNEF	1.1250-18 UNEF
17	725	1.208	1.761	1.438	.625	1.100	1.625	1.259	.9375-20 UNEF	1.2500-18 UNEF
19	726	1.333	1.949	1.562	.656	1.207	1.812	1.384	1.0625-18 UNEF	1.3750-18 UNEF
21	727	1.459	2.073	1.688	.750	1.332	1.938	1.507	1.1875-18 UNEF	1.5000-18 UNEF
23	728	1.580	2.199	1.812	.750	1.457	2.062	1.634	1.3125-18 UNEF	1.6250-18 UNEF
25	729	1.709	2.323	2.000	.750	1.582	2.188	1.759	1.4375-18 UNEF	1.7500-18 UNS

All dimensions for reference only. Most common options are shown; other options are available.

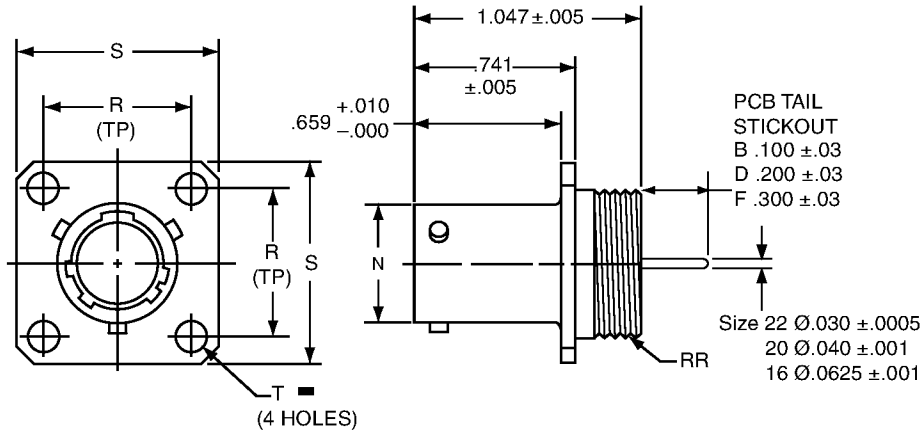
★ .059 dia. min. 3 lockwire holes.
Formed lockwire hole design (6 holes) is optional.
* "D" shaped mounting hole dimensions

38999, Series I Hermetic – PCB Contacts

LJT00 Wall Mounting Receptacle

Series I LJT

38999



PART #	1. Base Number	2. Coded Shell Size	3. Insert Arrg.	4. Contact Type/Alt. Keying Positions	5. Shell Finish	6. Tail Length
See chart below	10-626	401	-35	P	1	B

HOW TO ORDER

1. Base Number:

10-626	Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail
---------------	---

2. Select a Coded Shell Size:

See chart below **401-409**, designates size 9-25 shell size.

3. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

4. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

5. Select a Tail Length:

B	.100±.03
D	.200±.03
F	.300±.03

⊕ .005 DIA (M)

Shell Size	Part Number	N Dia. +.001 - .005	R (TP)	S ±.016	T Dia. ±.005	RR Thread Class 2A
9	10-626401-XXX	.572	.719	.938	.128	.6875-24 UNEF
11	402-XXX	.700	.812	1.031	.128	.8125-20 UNEF
13	403-XXX	.850	.906	1.125	.128	.9375-20 UNEF
15	404-XXX	.975	.969	1.219	.128	1.0625-18 UNEF
17	405-XXX	1.100	1.062	1.312	.128	1.1875-18 UNEF
19	406-XXX	1.207	1.156	1.438	.128	1.3125-18 UNEF
21	407-XXX	1.332	1.250	1.562	.128	1.4375-18 UNEF
23	408-XXX	1.457	1.375	1.688	.147	1.5625-18 UNEF
25	409-XXX	1.582	1.500	1.812	.147	1.6875-18 UNEF

All dimensions for reference only.

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB**
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

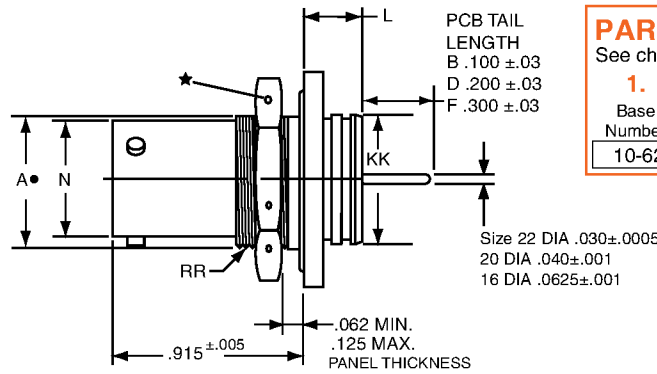
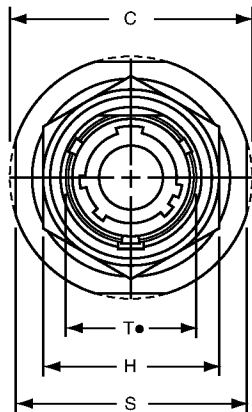
22992
Class 1

Back-Shell's

Options
Others

38999

Series I LJT



PART #
See chart below

1.	2.	3.	4.	5.
Base Number	Coded Shell Size	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	41	P	1	B

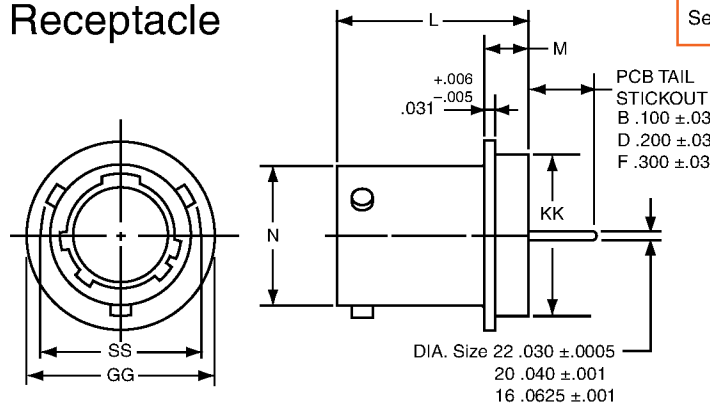
Follow HOW TO ORDER instructions below

Shell Size	Part Number	A* +.000 -.010	C Max.	H Hex +.017 -.016	L Max.	N +.000 -.005	S ±.016	T* +.010 -.000	KK +.011 -.000	RR Thread Class 2A (Plated)
9	10-626411-XXX	.669	1.199	.875	.297	.572	1.062	.697	.642	.6875-24 UNEF
11	412-XXX	.769	1.386	1.000	.297	.700	1.250	.822	.766	.8125-20 UNEF
13	413-XXX	.955	1.511	1.188	.297	.850	1.375	1.007	.892	1.0000-20 UNEF
15	414-XXX	1.084	1.636	1.312	.297	.975	1.500	1.134	1.018	1.1250-18 UNEF
17	415-XXX	1.208	1.761	1.438	.297	1.100	1.625	1.259	1.142	1.2500-18 UNEF
19	416-XXX	1.333	1.949	1.562	.328	1.207	1.812	1.384	1.268	1.3750-18 UNEF
21	417-XXX	1.459	2.073	1.688	.328	1.332	1.938	1.507	1.392	1.5000-18 UNEF
23	418-XXX	1.580	2.199	1.812	.328	1.457	2.062	1.634	1.518	1.6250-18 UNEF
25	419-XXX	1.709	2.328	2.000	.328	1.582	2.188	1.759	1.642	1.7500-18 UNS

All dimensions for reference only.

38999, Series I Hermetic – PCB Contacts

LJT1 Solder Mounting Receptacle



PART #
See chart below

1.	2.	3.	4.	5.
Base Number	Coded Shell Size	Contact Type/Alt. Keying Positions	Shell Finish	Tail Length
10-626	421	P	1	B

HOW TO ORDER

1. Base Number:

10-626 Base Number for MIL-DTL-38999 Series III Hermetic with PCB Tail

2. Select a Coded Shell Size:

See chart below **421-429**, designates size 9-25 shell size. Example: **421** = Size 9 Shell

3. Contact Type/Alternate Keying Positions:

Refer to page 147 for alternate rotation letters to use.

P	Designates Pin Contacts in Normal Position
S	Designates Socket Contacts in Normal Position

4. Select a Shell Finish:

1	Hermetic seal, passivated Stainless Steel, 200°C
2	Hermetic seal, Stainless Steel w/Nickel Plate
3	Carbon Steel w/reflowed tin plate

5. Select a Tail Length

B	.100±.03
D	.200±.03
F	.300±.03

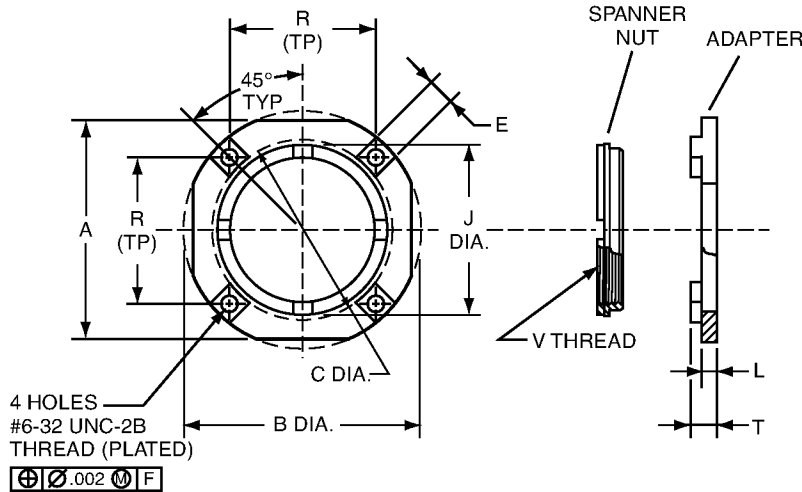
All dimensions for reference only.
Weld mounting hermetic receptacle also available.
Consult Amphenol for availability and dimensions.

Shell Size	Part Number	N Dia. +.001 -.005	SS Dia. +.000 -.016	L +.011 -.000	M +.006 -.005	GG Dia. +.011 -.010	KK Dia. +.001 -.005
9	10-626421-XXX	.572	.662	.789	.125	.750	.672
11	422-XXX	.700	.810	.789	.125	.844	.781
13	423-XXX	.850	.960	.789	.125	.969	.906
15	424-XXX	.975	1.085	.789	.125	1.094	1.031
17	425-XXX	1.100	1.210	.789	.125	1.218	1.156
19	426-XXX	1.207	1.317	.789	.125	1.312	1.250
21	427-XXX	1.332	1.442	.789	.125	1.438	1.375
23	428-XXX	1.457	1.567	.821	.156	1.563	1.500
25	429-XXX	1.582	1.692	.821	.156	1.688	1.625

Stand-off Adapter for use with 38999 PCB Connectors

Series III TV

Amphenol's stand-off adapter and spanner nut assembly allows any MIL-DTL-38999 jam nut receptacle to support PCB contacts and may eliminate the need for special stand-off shell design. Consult Amphenol for more information.



Tri-Start MIL-DTL-38999 Jam Nut Connector with Stand-off Adapter

FINISH DATA**	
Suffix Designation	Description
9	Olive drab cadmium plate, nickel base plate
G	Electroless nickel plate
None	Passivated Stainless Steel
8	Nickel Plated

** Other finishes available; consult Amphenol for further information.

HOW TO ORDER
Order by applicable 10-part number in table below.
Last digit designates finish - see finish table.

Shell Size	Part Number	A ± .003	B Dia. ± .003	C Dia. +.005 -.001	E ±.005	J Dia. +.005 -.000	L ±.003	R (TP)	T* ±.002	V Thread Metric Plated
9	10-658266-01()	1.062	1.188	.750	.200	.625	.150	.688	.325	M12 X 1-6H
11	10-658266-02()	1.250	1.375	.900	.200	.744	.150	.813	.325	M15 X 1-6H
13	10-658266-03()	1.375	1.500	.975	.200	.862	.150	.860	.325	M18 X 1-6H
15	10-658266-04()	1.500	1.625	1.125	.200	1.019	.150	.968	.325	M22 X 1-6H
17	10-658266-05()	1.625	1.750	1.250	.200	1.137	.150	1.062	.325	M25 X 1-6H
19	10-658266-06()	1.812	1.938	1.375	.200	1.255	.150	1.188	.325	M28 X 1-6H
21	10-658266-07()	1.938	2.062	1.469	.200	1.373	.150	1.250	.325	M31 X 1-6H
23	10-658266-08()	2.062	2.188	1.625	.200	1.492	.150	1.344	.325	M34 X 1-6H
25	10-658266-09()	2.188	2.312	1.750	.200	1.610	.150	1.438	.325	M37 X 1-6H
9	10-658266-10()	1.062	1.188	.750	.200	.625	.150	.688	.362	M12 X 1-6H
11	10-658266-11()	1.250	1.375	.900	.200	.744	.150	.813	.362	M15 X 1-6H
13	10-658266-12()	1.375	1.500	.975	.200	.862	.150	.860	.362	M18 X 1-6H
15	10-658266-13()	1.500	1.625	1.125	.200	1.019	.150	.968	.362	M22 X 1-6H
17	10-658266-14()	1.625	1.750	1.250	.200	1.137	.150	1.062	.362	M25 X 1-6H
19	10-658266-15()	1.812	1.938	1.375	.200	1.255	.150	1.188	.362	M28 X 1-6H
21	10-658266-16()	1.938	2.062	1.469	.200	1.373	.150	1.250	.362	M31 X 1-6H
23	10-658266-17()	2.062	2.188	1.625	.200	1.492	.150	1.344	.362	M34 X 1-6H
25	10-658266-18()	2.188	2.312	1.750	.200	1.610	.150	1.438	.362	M37 X 1-6H

All dimensions for reference only.
* For information on additional "T" dimension lengths, consult Amphenol.
Consult Amphenol Aerospace for stainless steel availability & part numbers.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Camp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

Amphenol Fiber Optic Interconnects



CF38999 with MIL-PRF-29504 Size 16 Fiber Optic Termini



CF38999 with Size 20 Fiber Optic Termini



MT38999 with MT Fiber Optic Termini



ARINC 801 Fiber Optic Connector and Termini



Hybrid with Fiber Optic Termini and High Speed Contacts



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Fiber Optic Interconnect Products for Military, Aerospace and Harsh Environments

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Fiber Optic Termini

CF38999 with MIL-PRF-29504 Size 16 Fiber Optic Termini 187
 CF38999 with Size 20 Fiber Optic Termini 188

Multi-Channel Circular Connectors with Fiber Optics

MT38999 with MT Fiber Optic Termini
 ARINC 801 Fiber Optic Connector and Termini

Hybrid with Fiber Optic Termini and High Speed Contacts

Fiber Optic Interconnects Markets:

- Defense
- Aerospace
- Aviation
- Automotive
- Industrial
- Medical
- Marine
- Oil & Gas
- Power
- Telecommunications
- Transportation
- Water





Fiber Optics in MIL-DTL-38999 Series III Connectors

MIL-DTL-38999 Series III connectors are designed for high-speed data transmission in aerospace and defense applications. They support various fiber optic configurations, including 2, 3, and 4 fibers per connector. The connectors are available in different shell types, such as circular and rectangular, and are compatible with various fiber optic cables and termination methods. The high-speed performance is achieved through the use of advanced materials and precision manufacturing techniques.

Connector	Termination	Features
	-, 02	High speed data transmission Compatible with various fiber optic cables Precision manufacturing techniques
	*3	High speed data transmission Compatible with various fiber optic cables Precision manufacturing techniques
	2).	High speed data transmission Compatible with various fiber optic cables Precision manufacturing techniques
	BE	High speed data transmission Compatible with various fiber optic cables Precision manufacturing techniques

MIL-DTL-38999 Series III connectors are designed for high-speed data transmission in aerospace and defense applications. They support various fiber optic configurations, including 2, 3, and 4 fibers per connector. The connectors are available in different shell types, such as circular and rectangular, and are compatible with various fiber optic cables and termination methods. The high-speed performance is achieved through the use of advanced materials and precision manufacturing techniques.

38999

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts

Connectors

Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

~~CONFIDENTIAL~~

38999

Ordering Information for Fiber Optic Pins

MIL-PRF-29504/4	MIL-PRF-29504/5	IA 2E	IE (E)	20E	8888
			n		
			n		
			n		
			n	02	B
			n		
			n	02	B
			n		
			n	02	B
			n		
			n	02	B
			n		
			n	02	B
			n		

Ordering Information for Fiber Optic Sockets

MIL-PRF-29504/4	MIL-PRF-29504/5	IA 2E	IE (E)	20E	8888
			n		
			n		
			n		
			n	M	02 B
			n		
			n	M	02 B
			n		
			n	M	02 B
			n		
			n	M	02 B
			n		



Multi-mode Size 16 Fiber Optic Termini

02 04 06 08 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100



Single Mode Size 16 Fiber Optic Termini

02 04 06 08 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

CONFIDENTIAL

02

04 06 08 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100

Amphenol® Multi-mode, Size 16 Termini Features:



Amphenol® Single mode, Size 16 Termini Features:



38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

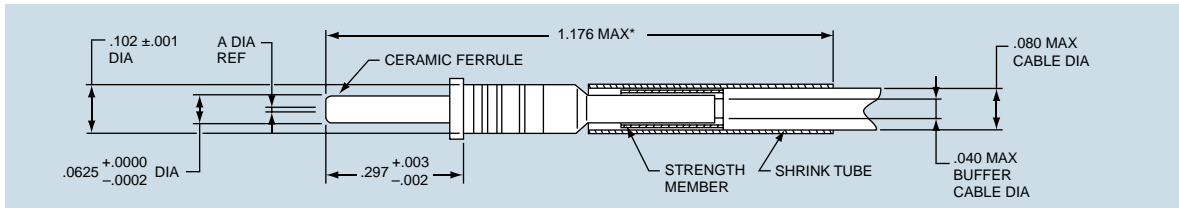
5015
Crimp Rear Release Matrix

22992
Class 1

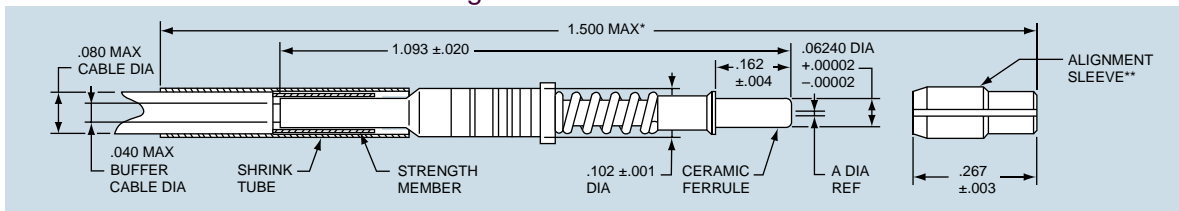
Back-Shell

Options
Others

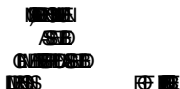
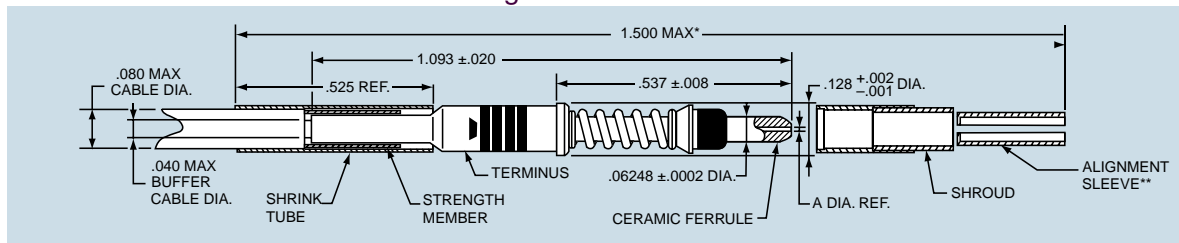
Size 16 Pin Termini



Size 16 Socket Termini with Metal Alignment Sleeve



Size 16 Socket Termini with Ceramic Alignment Sleeve



Multi-Mode Termini, HD20

38999



Multi-mode HDF20 Fiber Optic Termini

Ordering Information for Multi-mode Termini (Size 20) for MIL-DTL-38999 Connectors

MIL-DTL-38999 PIN/LETTER	MIL-DTL-38999 CONNECTOR		MIL-DTL-38999 POSITION	MIL-DTL-38999 POSITION
	LETTER	NUMBER		
			n	
			n	

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

MIL-DTL-38999 PIN/LETTER
 MIL-DTL-38999 CONNECTOR
 MIL-DTL-38999 POSITION
 MIL-DTL-38999 POSITION

Amphenol® Multi-mode, Size 20 Termini Features:

- s MIL-DTL-38999
- MIL-DTL-38999
- SHRINK TUBE
- MIL-DTL-38999
- SHRINK TUBE
- s MIL-DTL-38999

HIGH SPEED

Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

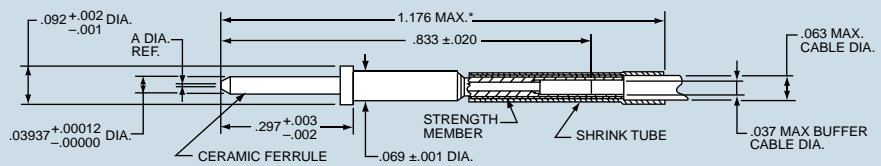
22992
Class 1

Back-
Shells

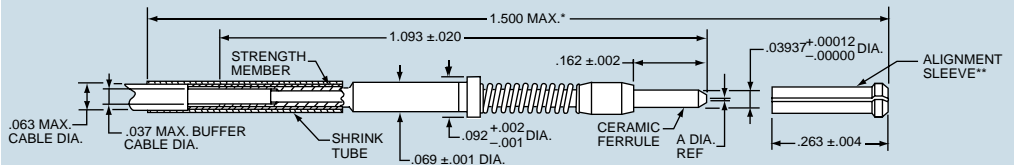
Options
Others



Size 20 Multi-mode Pin Terminus



Size 20 Multi-mode Socket Terminus



MIL-DTL-38999 PIN/LETTER
 MIL-DTL-38999 CONNECTOR
 MIL-DTL-38999 POSITION
 MIL-DTL-38999 POSITION



- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

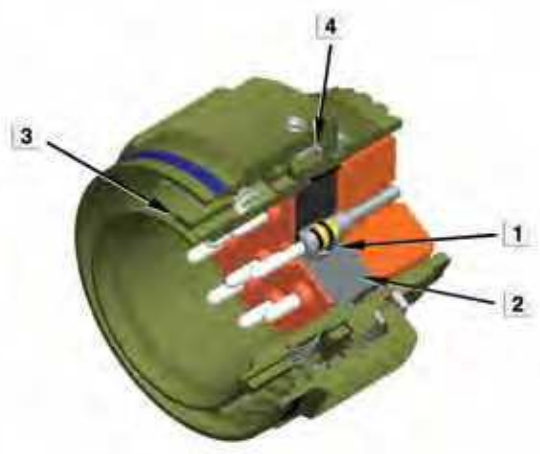
- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options Others

SEE(S), 4,
s -)
A (Z
A (Z
A (Z



Additional, composite connectors features include:

SEE(S), 4,
s -)
A (Z
A (Z
A (Z

The illustration above shows the key features of the CF38999. The highest optical performance connector conforming to MIL-DTL-38999

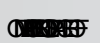
1. Beryllium-copper retention clip for improved termini stability
2. Precision-aligned inserts
3. Modified master key
4. Integrated wave washer for improved performance in high vibration environments

MECHANICAL/ENVIRONMENTAL

02 - 4 2	0 2 2 - .
REAR	-, 34 EPD
REAR	RE
REAR	03) EMD
REAR	ABT DE (Z AD DE
REAR	REAR
REAR	-, 3 E VVV
REAR	RE RMP
REAR	0 E

MATERIALS & FINISH CHARACTERISTICS

3 (, - 42), .3(	4 -0 2 452 2 4).	3,4 3029 2 4). (523	-, 4, 32 6) , 33
TO	TO		4
TO	TO		
TO	TO		7
TO	TO		+
TO	TO		M
TO	TO		*



Multi-Channel Fiber Optic Circular Connector

Easy Steps to build a part number... Tri-Start Series III

1.	2.	3.	4.	5.	6.
Connector Type	Material	Finish	Shell Style	Shell Size- Insert Arrangement	Contact Type & Key/Keyway Position
CF-	50	9	0	17-08	P

Step 1. Connector Type

CF-	Connector Type
-----	----------------

Step 2. Select a Material

50	Material
60	Material
80	Material

Step 3. Select a Finish

4	Finish	
5	Finish	
6	Finish	
9	Finish	
D	Finish	4 - JOEL04
S	Finish	

Step 4. Select a Shell Style

0	Shell Style
1	Shell Style
2	Shell Style
5	Shell Style
6	Shell Style
7	Shell Style

Step 5. Select a Shell Size – Insert Arrangement from proceeding pages.

Step 6. Select a Contact Type & Key/Keyway Position

Contact Type and Key/Keyway Position

ALTERNATE POSITION SUFFIX

Contact Type	Key/Keyway Position	
	DS	SE
CPA	P	S
	G	H
	I	J
	K	L
	M	N
	R	T

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

UP

OR

Front face of pin inserts illustrated

FRONT	09-94	09-98	11-02	11-05	11-98	11-99	13-04	13-08
UNCLAMPED	2	3	2	5	6	7	4	8
CLAMPED	20	20	16	20	20	20	16	20

FRONT	13-13	13-98	15-05	15-15	15-18	15-19	15-97			
UNCLAMPED	2	2	10	5	14	1	18	19	8	4
CLAMPED	16	12	20	16	20	16	20	20	20	16

Dedicated to
Fiber Optics

FRONT	17-08	17-26	17-99	19-11	19-28		
UNCLAMPED	2	26	21	2	11	26	2
CLAMPED	16	20	20	16	16	20	16

FRONT	19-32	21-16	21-39	21-41	
UNCLAMPED	32	16	37	2	41
CLAMPED	20	16	20	16	20



38999

- III
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- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

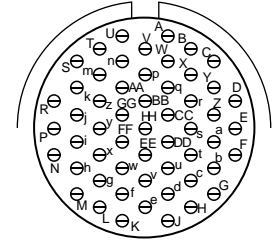
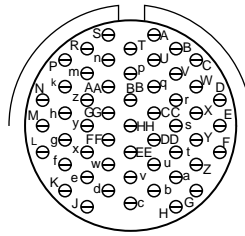
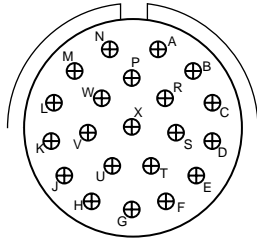
5015
Crimp Rear
Release
Matrix

22992
Class 1

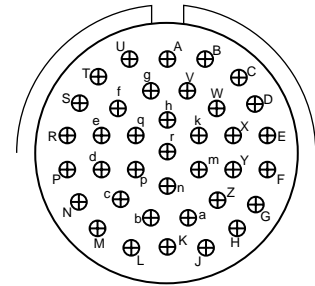
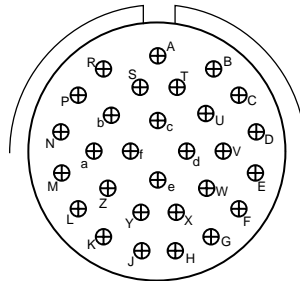
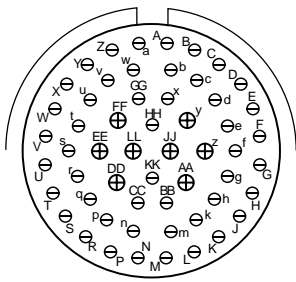
Back-
Shells

Options
Others

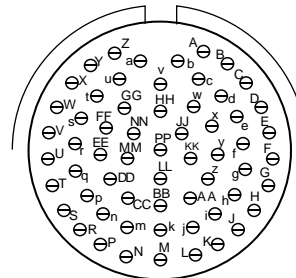
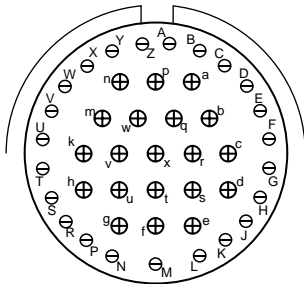
38999 Front face of pin inserts illustrated



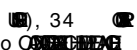
FRONT	23-21	23-53	23-55
UMB	21	53	55
OBE	16	20	20



FRONT	25-04	25-29	25-37
UMB	48 6	29	37
OBE	20 16	16	16



FRONT	25-43	25-61
UMB	23 20	61
OBE	20 16	20



- III
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- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

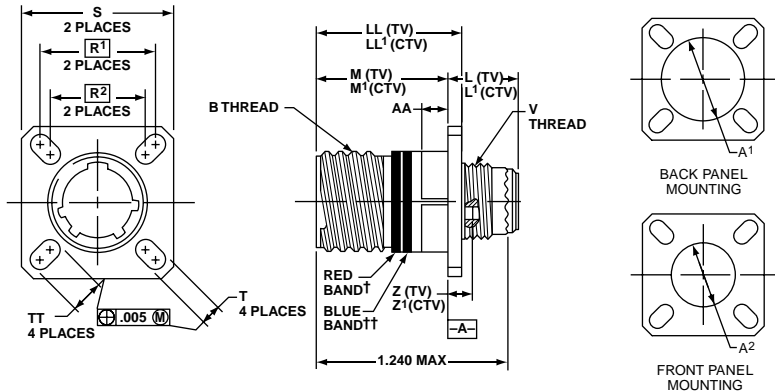
TRI-START™ METAL AND COMPOSITE CONNECTORS

Wall Mount Receptacle with Fiber Optics shell style 0

OR SE

02

MS



	-3	0	,43	AX	AX	n	n	R ¹	R	3	4	6	Z	Z ¹	1A	A	AX	n	,1	44	
	0	0	0	46	46	46	46			AX			46	46	46	46	46	46	46	46	
11												- 8 G									
												- 8 G									
17												- 8 G									
												- 8 G									
												- 8 G									
												- 8 G									
												- 8 G									
												- 8 G									

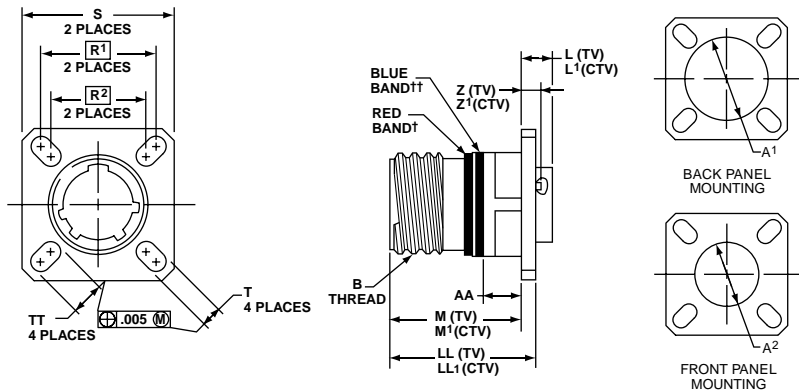
Box Mount Receptacle with Fiber Optics shell style 2

OR SE

02

02

MS



	-3	0	,43	AX	AX	n	n	R ¹	R	3	4	Z	Z ¹	1A	A	AX	n	,1	44	
	0	0	0	46	46	46	46			AX		46	46	46	46	46	46	46	46	
11																				
17																				

38999

- III
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- Herm/Seal
- PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

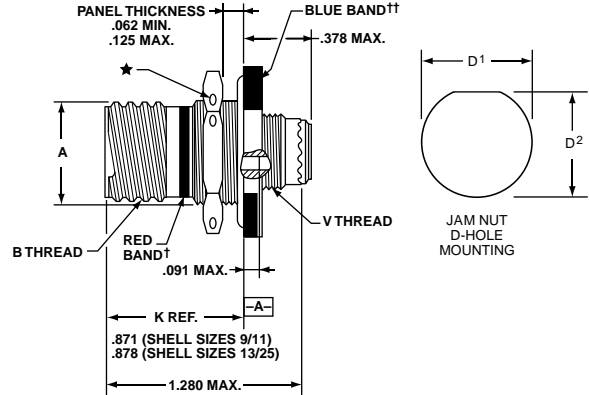
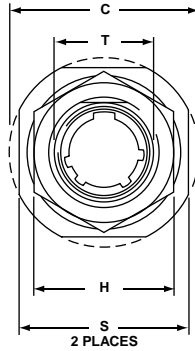
Options
Others

38999

TRI-START™ METAL AND COMPOSITE CONNECTORS

Jam Nut Receptacle with Fiber Optics shell style 7

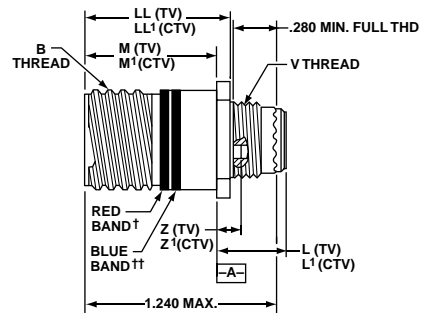
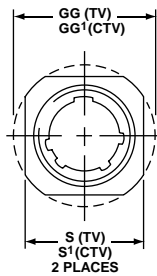
OR
SE



Shell Size	Series	Shell Style	Material	AX	n	n	()	3	4	6
11										- 8 G
										- 8 G
										- 8 G
17										- 8 G
										- 8 G
										- 8 G
										- 8 G
										- 8 G
										- 8 G

Line Receptacle with Fiber Optics shell style 1

OR
SE



Shell Size	Series	Shell Style	Material	AX	AX	M	M'	3	3'	6	Z	Z'	A	A	n	n'
11										- 8 G						
										- 8 G						
										- 8 G						
17										- 8 G						
										- 8 G						
										- 8 G						
										- 8 G						
										- 8 G						

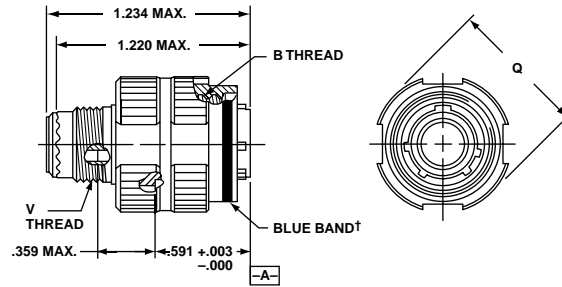
Multi-Channel Fiber Optic Circular 3TR

TRI-START™ METAL AND COMPOSITE CONNECTORS

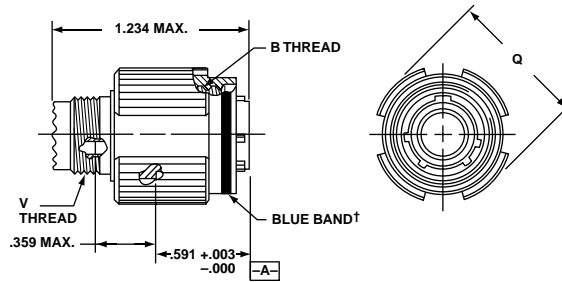
Straight Plug with Fiber Optics
shell style 6

OR
SE

METAL



COMPOSITE



11	17	0,43	1A AX	8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G
				- 8 G

38999

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HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



Order Information for Fiber Optic Pin

	MARK	TR	OR	ER	SE	IA	EE	OE
*3								
*3								
*3								

Ordering Information for Fiber Optic Socket

	MARK	TR	OR	ER	SE	IA	EE	OE
*3								
*3								
*3								

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

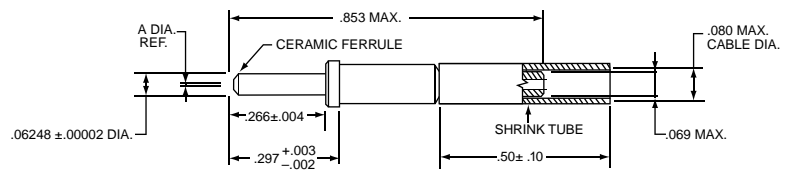
- 22992
- Class 1

- Back-Shells

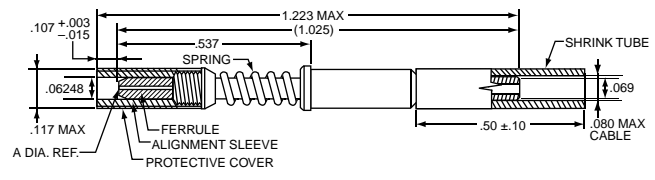
- Options Others



CF-198142-XXX JSFC18-X



CF-198143-XXX JSFC17-X

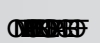


MECHANICAL/ENVIRONMENTAL

02 - 4 2	0 2 2 - .
BRN	B RF ND
GRN	S
RED	), 3 RAEFE LAS
BLU	GD
WH	GE
BY	RG
PK	RG ES
PK	RG ES
PK	RG ES S
PK	RG RF B

MATERIALS LIST

- 0 . . 4	- 42),
BRN	RON
GRN	RON
RED	IE-3
BLU	IE-3
WH	0 +
BY	IN),)



INTERNATIONAL SWAMP



38999
 III
 HD
 Dualok
 II
 I
 SJT
 Accessories
 Aquacon
 Herm/Seal
 PCB



JSFC15 Receptacle and JSFC16 Fiber Optic Plug

MECHANICAL/ENVIRONMENTAL

02 - 4 2	0 2 2 - .
REAR -), 34	EPD
ANALOG	
	03) BOUND
	DES AD DES
	DES
CHUNK -), 3	DES
	DES
	D ES



Easy Steps to build a part number... JSFC15 & JSFC16

1.	2.	3.	4.	5.	6.
CON NUMBER	SH S	SE LES	SH S	CON TYPE	CS
JSFC15	20	M	E-8	A	N
JSFC16	26	M	E-8	B	N

Step 1. Select a Connector Type

JSFC15	
JSFC16	

Step 2. Select a Shell Style

20	*3	
26	*3	

Step 3. Select a Service Class

M	
---	--

Step 4. Select a Shell Size – Insert Arrangement

B 3S B -), 4, B)
B W G H B B FNS

SE	SE	FRONT
B - (11)	2	
C - (13)	4	
D - (15)	5	
E - (17)	8	

SE	SE	FRONT
F - (19)	11	
G - (21)	16	
H - (23)	21	
J - (25)	29	
J - (25)	37	

Step 5. Select a Contact Type

A	
B	

Step 6. Select an Alternate Position

.R F B

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

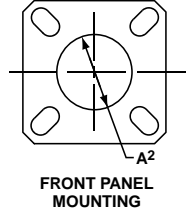
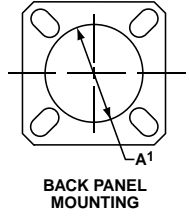
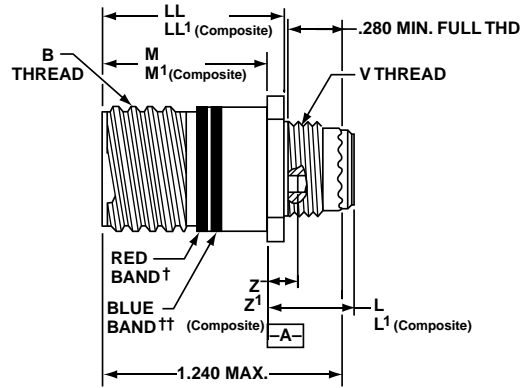
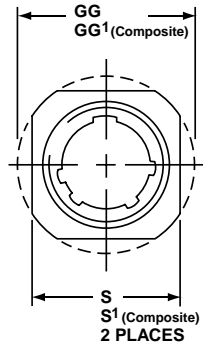
Options
Others

38999

JSFC15
Wall Mount Receptacle with
Fiber Optics
Shell Style 20

CR

W



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

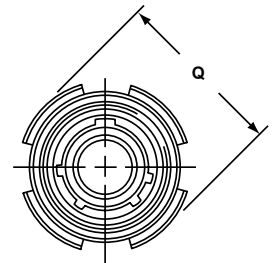
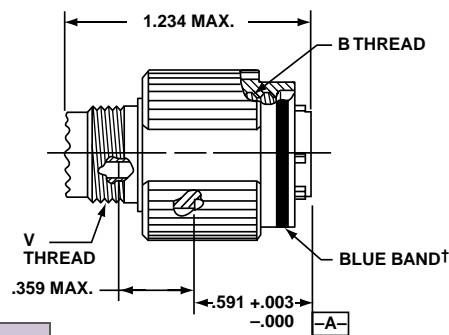
		-3	0	,43	AX	AX	n	M	M'	R'	R	3	4	6	Z	Z'	1A	A	AX	n	,1	44	
														- 8 G									
11														- 8 G									
														- 8 G									
17														- 8 G									
														- 8 G									
														- 8 G									
														- 8 G									
														- 8 G									
														- 8 G									
														- 8 G									

JSFC16
Straight Plug with Fiber Optics
Shell Style 26

CR

W

COMPOSITE



		-3	0	,43	1A	AX	6
							- 8 G
11							- 8 G
							- 8 G
17							- 8 G
							- 8 G
							- 8 G
							- 8 G
							- 8 G

ARINC 801 Termini



ARINC 801 Termini

ARINC 801 Termini

Ordering Information for ARINC 801 Termini for ARINC 801 Connectors

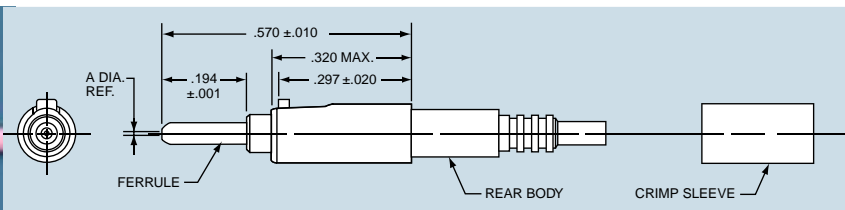
ARINC 801 Termini	ARINC 801 Connector	ARINC 801 Connector

Amphenol® ARINC 801 Termini Features:

- High speed fiber optic interface
- Single ferrule design
- Available in black and blue
- Available in 4, 8, and 12 pin configurations
- Available in 1, 2, and 3 meter lengths
- Available in 20, 30, and 40 AWG cable gauges
- Available in 0.1mm and 0.2mm pitch
- Available in 0.5mm and 0.75mm ferrule diameters
- Available in 0.1mm and 0.2mm ferrule hole diameters
- Available in 0.1mm and 0.2mm ferrule hole tolerances
- Available in 0.1mm and 0.2mm ferrule hole positions
- Available in 0.1mm and 0.2mm ferrule hole diameters



ARINC 801 Termini



ARINC 801 Termini

Parameter	Performance
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	

ARINC 801 Termini

Component	Material
ARINC 801 Termini	
ARINC 801 Termini	
ARINC 801 Termini	

ARINC 801 Termini

Amphenol ARINC 801 Termini Part Number	A Dia. Ref.	Ferrule Hole Tolerance
		n
		n

38999

Qualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell
Shells

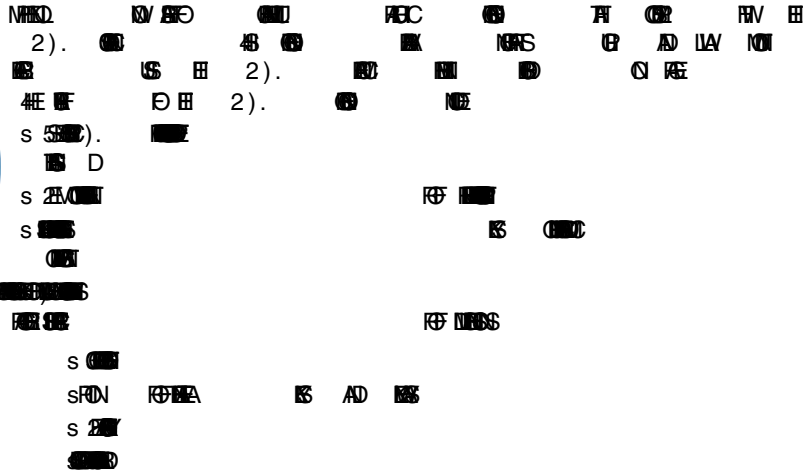
Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



ARINC 801 Inserts with Tri-Start Connectors

Amphenol® ARINC 801 Connector:



Easy Steps to build a part number... ARINC 801 Connectors

1.	2.	3.	4.	5.	6.
CF	5A	4	6	11-02	N

Step 1. Select a Connector Type

CF-

Step 2. Select a Shell Series

5A	11-02
6A	11-02

Step 3. Select a Shell Finish

4	11-02
9	11-02
D	11-02

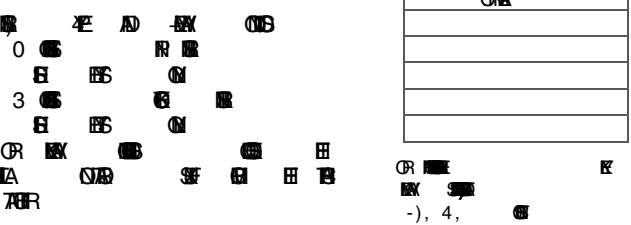
Step 4. Select a Shell Style

0	11-02
6	11-02

Step 5. Select a Shell Size – Insert Arrangement



Step 6. Insert Type & Key/Keyway Position



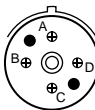
Insert Arrangements

Front face of pin inserts illustrated

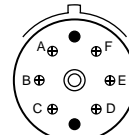


Insert Arrangement

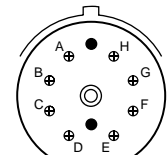
11-02



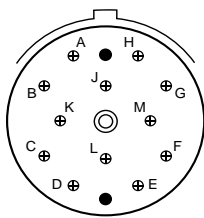
13-04



15-06

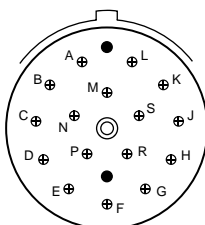


17-08

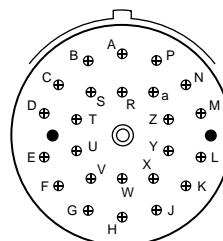


Insert Arrangement

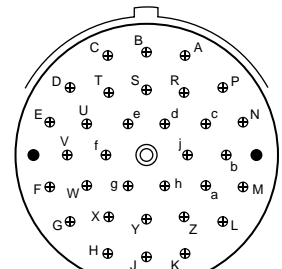
19-12



21-16



23-24



25-32

⊕ Contact Location ⊙ Jack Screw (Plug only) ● Guide Pin/Hole Location



MT Ferrule Fiber Optic Termini

REF 4

Ordering Information for MT Assembly Kits and Tools

-4	
-4	
-4	
-4	

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

Amphenol® MT (Multi-terminal) Features:

- 4
- 6
- 8
- 12
- 16
- 20
- 24
- 28
- 32
- 36
- 40
- 44
- 48
- 52
- 56
- 60
- 64
- 68
- 72
- 76
- 80
- 84
- 88
- 92
- 96
- 100

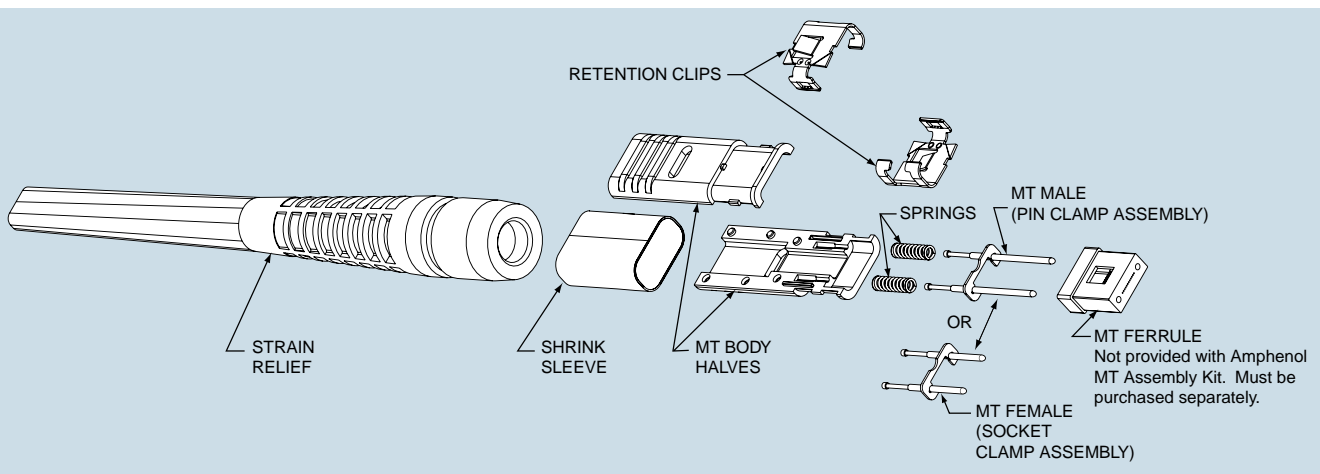
MT Removal Tool



MT Assembly Tool



Amphenol® MT Termini Assembly Kit (MT female socket clamp shown)



HIGH SPEED

Fiber Optics

- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

OR NMD 26 4 32 40 48 56 64 72 80 88 96 100

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

MTK... -4... FVC... FW... G

The features of the MT cylindrical connector include:



MT38999 Connectors

MT INSERT AVAILABILITY
Front face of socket inserts illustrated

Insert Arrangement 11-1 21-4

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

MTK... -4... FVC... FW... G

- EMI Filter
- Transient

Easy Steps to build a part number... CF, Tri-Start Series III with Fiber Optics

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Connector Type	Connector Class	Terminus Style	Shell Finish	Shell Style	Shell Size—Insert Arrangement	Insert Type & Key/Keyway Position
CF-	6	9	9	0	11-01	P

Step 1. Select a Connector Type

CF-

Step 2. Select a Connector Class

5	LVNLM
6	OVCE
8	IS

Step 3. Terminus Style

9 -

Step 4. Select a Shell Finish

4	S
6	ON
9	LVNLM
D	LVNLM 4- JOELO4

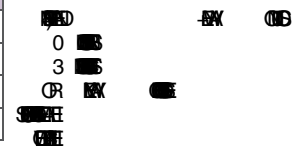
Step 5. Select a Shell Style

0	IS
1	NS
6	IS
7	FM NIS

Step 6. Select a Shell Size - Insert Arrangement

Shell Size	IS
Insert Arrg.	
11-01	IS NS
21-04	IS nS/

Step 7. Insert Type & Key/Keyway Position



, 4 2. 4 03)4). 358

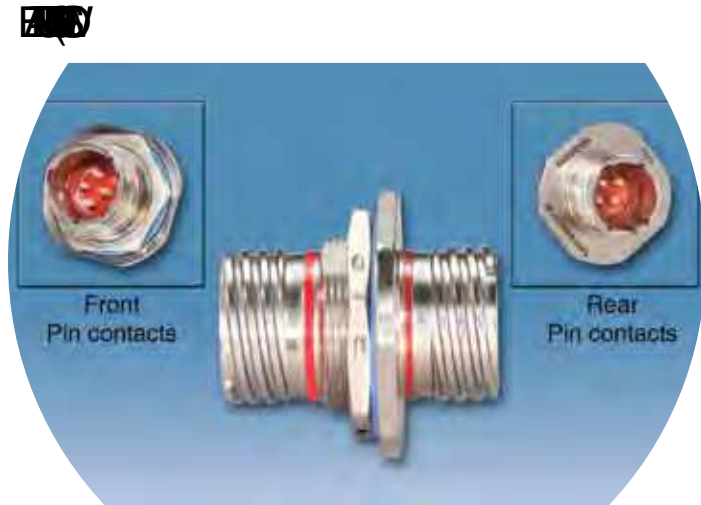
KEY	KEY	
	IS	IS
CPA	P	S
	G	H
	I	J
	K	L
	M	N
	R	T

- Options
- Others

LVNLM... OR

Fiber Optic Bulkhead Feed-Through

THE ONE



Fiber Optic Bulkhead Feed-Through Connector
(Special size 16 Pin-Pin Termini Configuration)

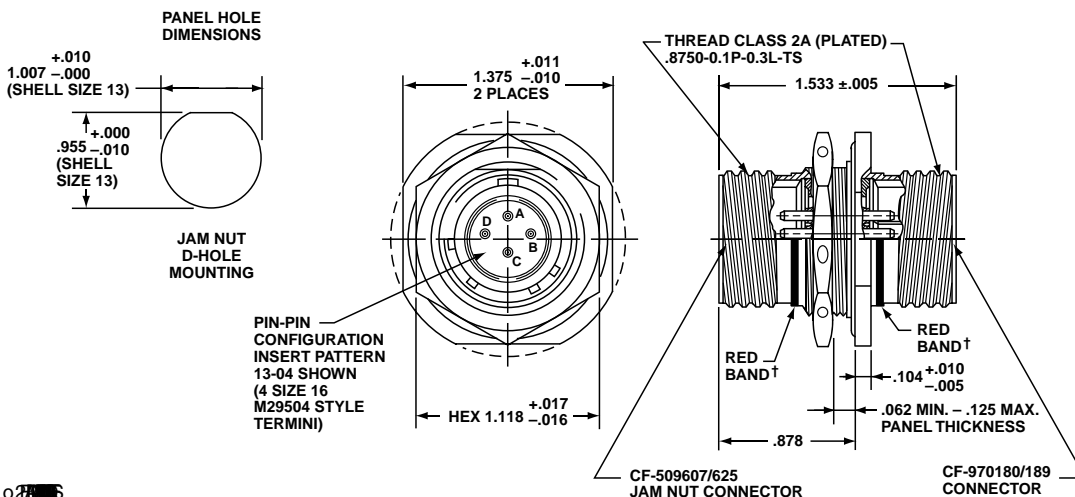
MFRD 13 SLE 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100
 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 .001 .002 .003 .004 .005 .006 .007 .008 .009 .010 .011 .012 .013 .014 .015 .016 .017 .018 .019 .020 .021 .022 .023 .024 .025 .026 .027 .028 .029 .030 .031 .032 .033 .034 .035 .036 .037 .038 .039 .040 .041 .042 .043 .044 .045 .046 .047 .048 .049 .050 .051 .052 .053 .054 .055 .056 .057 .058 .059 .060 .061 .062 .063 .064 .065 .066 .067 .068 .069 .070 .071 .072 .073 .074 .075 .076 .077 .078 .079 .080 .081 .082 .083 .084 .085 .086 .087 .088 .089 .090 .091 .092 .093 .094 .095 .096 .097 .098 .099 .100
 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 .001 .002 .003 .004 .005 .006 .007 .008 .009 .010 .011 .012 .013 .014 .015 .016 .017 .018 .019 .020 .021 .022 .023 .024 .025 .026 .027 .028 .029 .030 .031 .032 .033 .034 .035 .036 .037 .038 .039 .040 .041 .042 .043 .044 .045 .046 .047 .048 .049 .050 .051 .052 .053 .054 .055 .056 .057 .058 .059 .060 .061 .062 .063 .064 .065 .066 .067 .068 .069 .070 .071 .072 .073 .074 .075 .076 .077 .078 .079 .080 .081 .082 .083 .084 .085 .086 .087 .088 .089 .090 .091 .092 .093 .094 .095 .096 .097 .098 .099 .100

Fiber Optic Bulkhead Feed-Through Features include:

- MFRD 13 SLE 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100
- 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- .001 .002 .003 .004 .005 .006 .007 .008 .009 .010 .011 .012 .013 .014 .015 .016 .017 .018 .019 .020 .021 .022 .023 .024 .025 .026 .027 .028 .029 .030 .031 .032 .033 .034 .035 .036 .037 .038 .039 .040 .041 .042 .043 .044 .045 .046 .047 .048 .049 .050 .051 .052 .053 .054 .055 .056 .057 .058 .059 .060 .061 .062 .063 .064 .065 .066 .067 .068 .069 .070 .071 .072 .073 .074 .075 .076 .077 .078 .079 .080 .081 .082 .083 .084 .085 .086 .087 .088 .089 .090 .091 .092 .093 .094 .095 .096 .097 .098 .099 .100
- 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
- .001 .002 .003 .004 .005 .006 .007 .008 .009 .010 .011 .012 .013 .014 .015 .016 .017 .018 .019 .020 .021 .022 .023 .024 .025 .026 .027 .028 .029 .030 .031 .032 .033 .034 .035 .036 .037 .038 .039 .040 .041 .042 .043 .044 .045 .046 .047 .048 .049 .050 .051 .052 .053 .054 .055 .056 .057 .058 .059 .060 .061 .062 .063 .064 .065 .066 .067 .068 .069 .070 .071 .072 .073 .074 .075 .076 .077 .078 .079 .080 .081 .082 .083 .084 .085 .086 .087 .088 .089 .090 .091 .092 .093 .094 .095 .096 .097 .098 .099 .100

Fiber Optic Bulkhead Feed-Through Connector

AM LITE X 8



Ordering Information for Fiber Optic Bulkhead Feed-Through Connectors

MFRD	OR UBER	
	ADUM	
AM LITE	8 990	8 990

MFRD	PINS			
	11	17	7	8
AM LITE				
AM LITE		11		

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Cramp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

ORDERING INFORMATION
Protection Caps

Sealing Plugs

Part No.	AS		-3			Part No.	REF 30000	
	OR	OR	-3	OR -3	OR -3		OR	Military
11				7 8	7 8			
				7 8	7 8		4 0	
				7 8	7 8			-3
				7 8	7 8			
17				7 8	7 8			-3
				7 8	7 8			-3
				7 8	7 8			-3
			(	7 8	7 8			-3
			*	7 8	7 8			-3

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix (Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others



Protection Caps



Sealing Plugs

Backshells

30E ABE 01 EE 00 EV M 00 000
 EM 00 B B YN 00 RV EE 00 00 00
 AS 000 EIB N00Y 000 00 00
 ABE 00 00 0000 00 B
 00 00 3 3 00 00 0000 ABE
 00 00 00 00 00 00 00 MPE
 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 00 00
 00 00 00 00 00 00 N 00 00



- Non-Environmental Backshell
- Environmental Backshell
- Non-Environmental EMI/RFI Backshell
- Environmental EMI/RFI Backshell
- Shrink Boot Adapter
- Crimp Ring Adapter
- Band Lock Adapter
- SQ Adapter
- Quick Clamp
- Strain Relief Clamp
- Grommet Nut
- Lamp Thread Adapter



INTERNATIONAL

38999

Fiber Optic Custom Cable Assembly Design and Fabrication

MKS ER O H S
 ER O UR
 AD H
 ME MKD ER
 N H MPE
 ME AD ME
 MKD
 O ME
 S
 L ASB E
 AD S
 S
 S
 S - 4
 S 2).
 34 , 3
)2 04) 6),)49



D38999 Fiber Optic Connectors and Cables



ARINC 801 Connectors and Cables



Explosion Proof Amphe-EX™ Connectors and Cables

ER O H S
 ER O UR
 AD H
 ME MKD ER
 N H MPE
 ME AD ME
 MKD
 O ME
 S
 L ASB E
 AD S
 S
 S
 S - 4
 S 2).
 34 , 3
)2 04) 6),)49

CONNECTOR TYPE	DESCRIPTION
-), 02	S MEF S MKD
(	S MEF S MKD S MKD
- 4	S MEF S MKD S MKD
2).	S MEF S MKD S MKD S MKD
34	S MEF S MKD S MKD
	S MEF S MKD S MKD
,	S MEF S MKD S MKD
3	S MEF S MKD S MKD
- 42*	S MEF S MKD
-40 AD 0	S MEF S MKD
3- AD-	S MEF S MKD S MKD

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

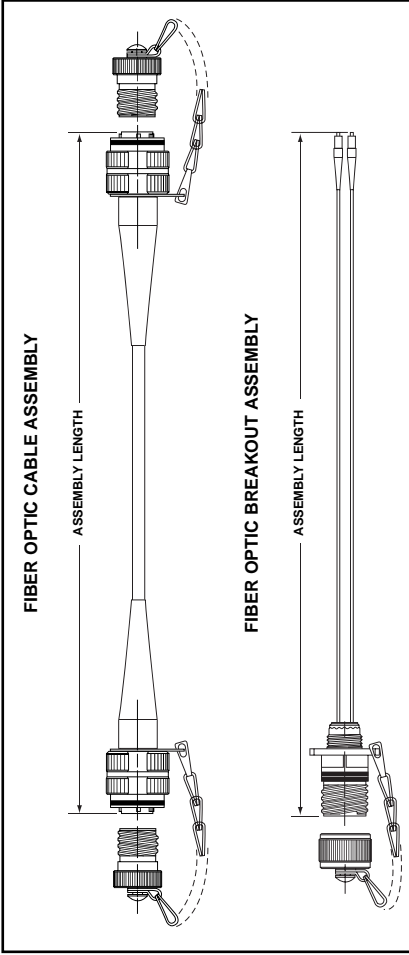
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others



CUSTOMER INFORMATION

CONTRACT NO. _____

CUSTOMER NAME _____

DATE _____

PROJECT NO. _____

REFERENCE NUMBER _____

COMPONENTS

42-.) 4 23 9).2), 4 23 24 . 5, 2 332)3

-.), 02 B C D E F G H I J K L M N O P Q R S T U V W X Y Z

OPERATIONAL CRITERIA

04), 7 6 , . 4 (0 2 2 - . 490

NEEDS HEAD

WINDS , 3 :(

WINDS HEAD

WINDS 300

WINDS 8

WINDS 64

ENVIRONMENTAL CRITERIA

REMARKS _____

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

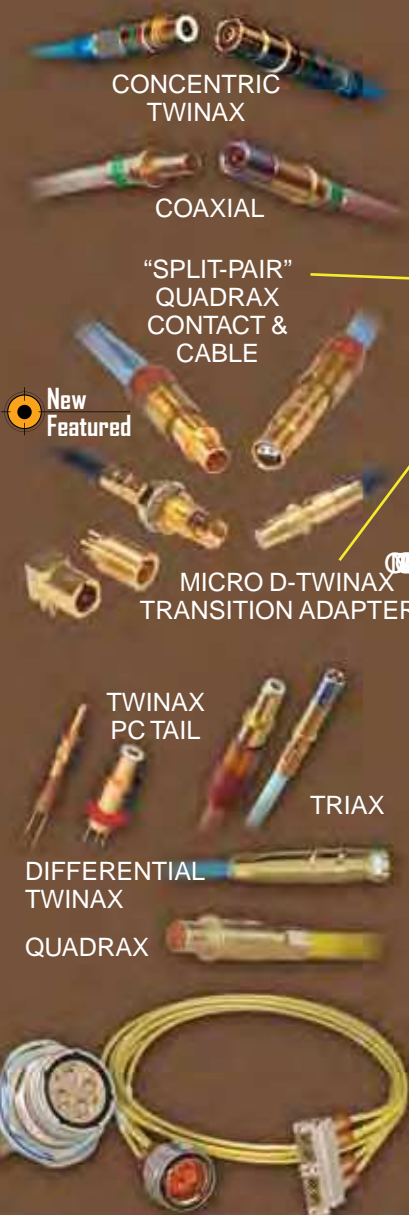
Contacts
Connectors
Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle
5015 Crmp Rear Release Matrix
22992 Class 1
Back- Shells
Options Others

Amphenol High Frequency Contacts



TABLE OF CONTENTS



New
Featured

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s XXXXXXXXXX	219-222
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s XXXXXXXXXX	250
s XXXXXXXXXX	251-253
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XXXXXXXXXX	
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s XXXXXXXXXX	
s XXXXXXXXXX	267



High Frequency Contacts Typical Markets:

- s ~~XXXXXXXXXX~~
- s ~~XXXXXXXXXX~~
- s ~~XXXXXXXXXX~~
- s C4ISR



When you need superior electrical performance plus shielding to eliminate interference from outside electrical sources in a connector, Amphenol has the most reliable contact solutions.



MIL-DTL-38999 CONNECTORS - The high performance series most ideal for integrating high speed and high frequency contacts. MIL-DTL-38999, Series I, II and III are by far the choice of connector for today's avionics needs - these subminiature family connectors are ideally suited for the incorporation of shielded contacts.

Coaxial	Concentric Twinax	Triax	Quadrax	Differential Twinax	High Frequency	Transition Adapters
<p>contacts</p> <p>protection from static interference</p> <p>applications</p>	<p>contacts</p> <p>protection from static interference</p> <p>applications</p>	<p>contacts</p> <p>inner contacts</p> <p>form one 100 or 150</p>	<p>contacts</p> <p>inner contacts</p> <p>form one 100 or 150</p>	<p>contacts</p> <p>inner contacts</p> <p>form one 100 or 150</p>	<p>contacts</p> <p>inner contacts</p> <p>form one 100 or 150</p>	<p>contacts</p> <p>inner contacts</p> <p>form one 100 or 150</p>

See High Frequency Contact Designer's Guide at end of this catalog.



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

on-line at

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

NEW "Split-Pair" Quadrax Contacts & Cable Assemblies for MIL-DTL-38999, Series III Circular



MIL-DTL-38999 Series III Connectors with "Split-Pair" Quadrax Contacts for use with CAT6A Type Cable

New/Featured

Micro D-Twinax Transition Adapters



Differential Twinax and Quadrax contacts provide high data transfer rates, low power consumption, and excellent EMI capability. They offer controlled impedance of 100 or 150 Ohm and are ideal for use in harsh environments.

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

DIFFERENTIAL TWINAX CONTACTS



Differential Twinax Contact

QUADRAX CONTACTS



Quadrax Contact



D38999 Series III Ground Plane Connectors with Quadrax PCB Socket contacts



D38999 Series III with Quadrax and Power Contacts



D38999 Series III Connectors (standoff shell at right and standard shell below) with Quadrax PC Tail Contacts

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

Quadrax Contacts, Quadrax Terminators, Transition Adapters



QUADRAX CONTACTS FOR ARINC CONNECTORS

MPHD2), 2000E
 [Small icons representing various connector types]



Quadrax Contact for ARINC Connectors

BOARD LEVEL CONNECTORS WITH COMPLIANT QUADRAX CONTACTS

MPHD2), 2000E
 [Small icons representing various connector types]



Compliant Quadrax Socket and PCB Tail Quadrax Pin

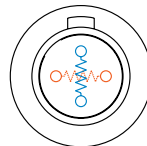
FEED-THROUGH CONNECTOR WITH QUADRAX CONTACTS

MPHD2), 2000E
 [Small icons representing various connector types]



Quadrax Terminators

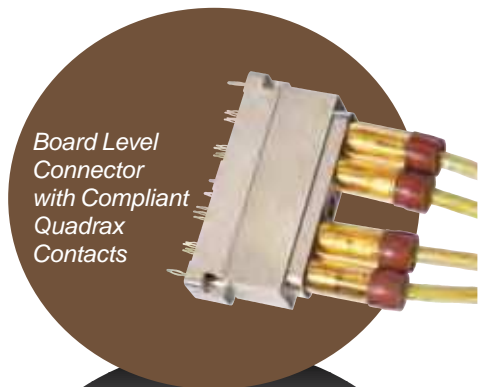
MPHD2), 2000E
 [Small icons representing various connector types]



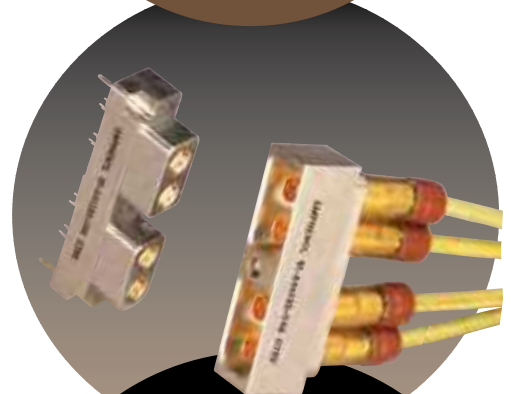
Quadrax Terminator

Transition Adapters

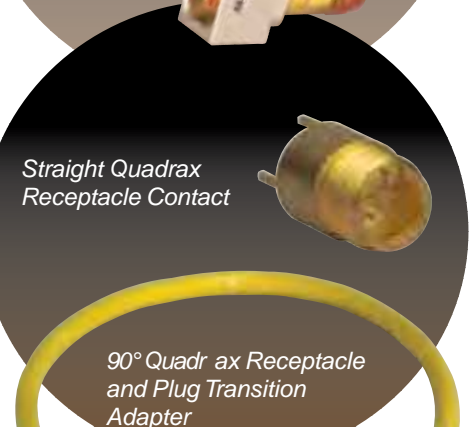
[Small icons representing various transition adapter types]



Board Level Connector with Compliant Quadrax Contacts



Straight Quadrax Receptacle Contact



90° Quadrax Receptacle and Plug Transition Adapter



90° Differential Twinax Receptacle and Plug Transition Adapter

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others



38999

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts

Connectors

Cables

SHIELDED COAXIAL CONTACTS



Shielded Coax Contacts

Amphenol® Shielded Contacts provide design versatility for electrical circuitry. Shielded contacts are used to eliminate interference from outside electrical sources, when standard crimp or solder contacts are not enough.

CONCENTRIC TWINAX SHIELDED CONTACTS



Concentric Twinax Contacts Size 8

The contact



MIL-DTL-38999 Lanyard "Breakaway" Connector with Concentric Twinax Contacts, Qualified for MIL-STD-1760



MIL-DTL-38999 Connector with High Speed Coax Contacts



Size 8 Coax Pin Contact

Concentric Twinax Size 12 Contacts



MIL-DTL-38999 Connector with Concentric Twinax Contacts

HIGH FREQUENCY COAX CONTACTS WITH "FLOAT MOUNT" TECHNOLOGY



High Frequency Size 8 Coax Contacts with "Float Mount" Technology

HF38999 - D38999 Connectors with High Frequency Coax Contacts



Twinax Contacts for Printed Circuit Board Applications

PCTAIL TWINAX CONTACTS



Variety of PC Tail Twinax Contacts

D38999 Connectors with PC Tail Twinax Contacts



Printed Circuit Twinax Contacts provide a cost effective packaging solution for limited space applications where connectors are attached to printed circuit boards.

TRIAx CONTACTS WITH THREE CONDUCTORS FOR USE WITH TRIAX CABLE



Triax Contacts

Rail Launch MIL-STD-1760 Connector with Triax Contacts



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

38999

CABLE ASSEMBLY CAPABILITIES

III	MI
HD	AS
Dualok	MI
II	MI
I	MI
SJT	MI
Accessories	MI
Aquacon	MI
Herm/Seal	MI
PCB	MI

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

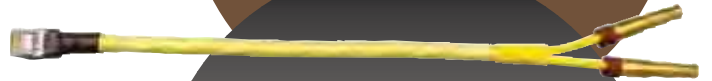
Back- Shells

Options Others

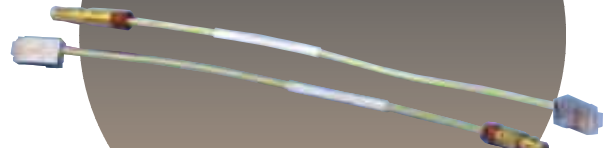


Variety of Quadrax Cable Assemblies

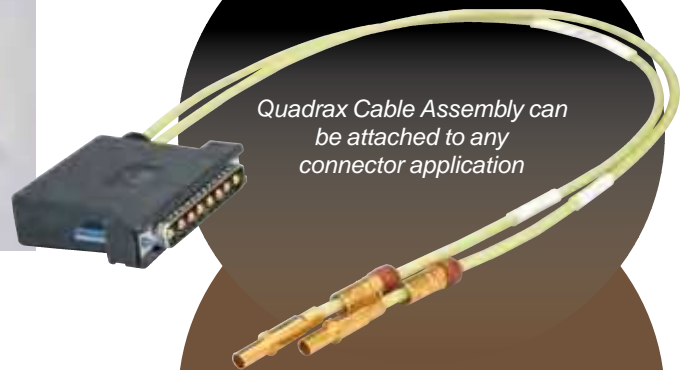
TESTING OF CABLES



Eight Wire Gigabit Ethernet Assembly



Quadrax Contact with 8P8C "RJ45" Jack Ethernet Assembly



Quadrax Cable Assembly can be attached to any connector application

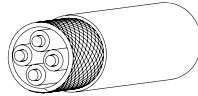


Quadrax Cable Assembly attached to Board Level Compliant Quadrax Connector

Use the Cable Usage Guide on pages 219-222 as follows:

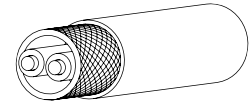


Quadrax Contacts CABLE USAGE GUIDE D38999 Series III* Connectors



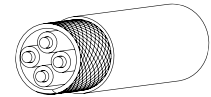
A/E/C		Nominal M/E/C O/S
HERA	F-4703-3	100
	F-4703-4	
	F-4704-5	
	F-47-4-6	
CBX	ET2PC236	
	ET2PF870	
PIC Wire	E50424	
	E50426	
	E51424	
Tensolite	NF22Q100	
	NF24Q100	
	NF24Q100-1	
	NF24Q100-01-200C	
	NF26Q100	
	NF26Q100-1	
	NF26-2Q100	
	8 ,	
	8 ,	
	0 8 ,	
	8 ,	
	8 ,	
	OE	RCN7688
RCN8513		
RCN8672		
S280W502-4		110
*3		
HERA	956-4TN	
	956-5	
	T956-4T200	
	MX100Q-24	
Tensolite	8 ,	
OE	RCN8487	
*39		
*3		
Tensolite	8 ,	150
OE	RCN8328	

Differential Twinax Contacts CABLE USAGE GUIDE D38999 Series III* Connectors



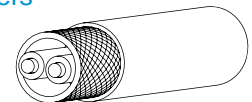
A/E/C		Nominal M/E/C O/S
Tensolite	8	98
ST5M1284-003		
HERA	2709-3	100
PIC Wire	E10224	
Tensolite	NF24T100-200C Space	
	8 ,	
	4 ,	
	8 ,	
24861	0 8 ,	
	S280W502-6	
*39		
OE	3	
HERA	4	
	12814	
	MX 100-24	
Tensolite	8 ,	150

Quadrax Transition Adapters CABLE USAGE GUIDE D38999 Series III* Connectors or ARINC 600 Connectors



A/E/C		Nominal M/E/C O/S	
HERA	F-4703-3	100	
	F-4704-4		
Tensolite	NF22Q100		
	NF22Q100-01		
	NF24Q100		
	NF26Q100		
HERA	956-5		
OE	3		
Tensolite	8 ,		150

Differential Twinax Transition Adapters CABLE USAGE GUIDE D38999 Series III* Connectors or ARINC 600 Connectors



A/E/C		Nominal M/E/C O/S
-		78
Tensolite	0 8	100
	0 8 ,	
Tensolite	8	150

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

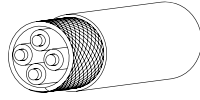
22992
Class 1

Back-Shell's

Options
Others

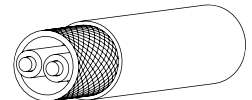
38999

Quadrax Contacts CABLE USAGE GUIDE ARINC 600 Rack & Panel Connectors



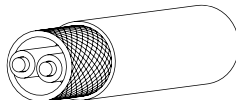
AEC		Nominal MIL-STD-883C CLASS
Tensolite	F-4703-3	100
	NF22Q100	
	NF24Q100	
	8 ,	
	0 8 ,	
S280W502-4		
*39		110
RCN8328		150
Tensolite	8 ,	

Differential Twinax Contacts CABLE USAGE GUIDE ARINC 600 Rack & Panel Connectors



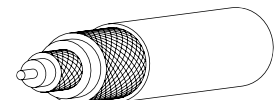
AEC		Nominal MIL-STD-883C CLASS
ABS0386WF24		100
ASNE0272TK22		100
ASNE0272TK24		100
Tensolite	0 8 ,	100

Concentric Twinax Contacts CABLE USAGE GUIDE D38999 Series I, II, III & SJT Connectors



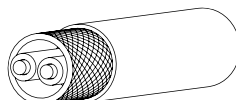
AEC		Nominal MIL-STD-883C CLASS
EPD32263A		77
EPD22189B		77
-		77
3		77
4 - (		77
3		77
24001	10602	77
	10606	77
	10612	77
	10613	77
	10614	77
2		77
05A0771		77
T10971		77
7724C8664		77
7726D0664		77
7		78
		100
5M2022-003		100
(3		100
S280W502-1		100
CXN2268		100

Triax Contacts CABLE USAGE GUIDE D38999 Series I, II, III & SJT Connectors



AEC		Nominal MIL-STD-883C CLASS
* . 7 4		50
5M2397-002		75
81264-02		75
* . 7 5		75
3		75
2		75
Tensolite	, 88	75
Tensolite	, 88	75
Thermatics	12447	75
		77
5M2559-001		95
81264-01		95
ST5M1323-001		95
Champlain	81-00700	95
Tensolite	, 4	95
	8	95
	13809	95
		95
Times AA6603		95
2 8		75

Concentric Twinax Contacts CABLE USAGE GUIDE ARINC 600 Rack & Panel Connectors



AEC		Nominal MIL-STD-883C CLASS
S280W502-1		100

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

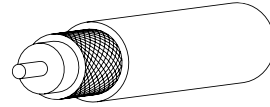
5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

Use the Cable Usage Guides on this page for Coax Contacts as follows:



Coax Contacts CABLE USAGE GUIDE

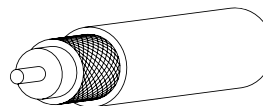
Part Number	Nominal Size	Material	Plating	Shielding	Connectors	Contacts
2 5 - 2	50					s
2 5 - 2	75					s
2 5 - 2	97					s
2 5 - 2	50					s
2 5 - 2	75					s
2 5 - 2	75					s
2 5 - 2	74					s
2 5 - 2	53					s
2 5 - 2	53				s	
2 5 - 2	50				s	
2 5 - 2	50		s			
2 5 - 2	75				s	
2 5 - 2	93				s	
2 5 - 2	93				s	
2 5 - 2	125					s
2 5 - 2	93					s
2 5 - 2	50					s
2 5 - 2	50					s
2 5 - 2	50					s
2 5 - 2	50					s
2 5 - 2	50				s	
2 5 - 2	50				s	
2 5 - 2	50				s	
2 5 - 2	50		s		s	
2 5 - 2	50				s	
2 5 - 2	50		s		s	
2 5 - 2	70		s		s	
2 5 - 2	50		s		s	
2 5 - 2	50		s		s	
2 5 - 2	75		s		s	
2 5 - 2	95		s		s	
2 5 - 2	75		s		s	
2 5 - 2	50		s		s	
2 5 - 2	50					
2 5 - 2	95		s		s	
2 5 - 2	95					
2 5 - 2	50		s		s	
2 5 - 2	93				s	
2 5 - 2	50					s
2 5 - 2	50					s
2 5 - 2	75					s
2 5 - 2	50				s	
2 5 - 2	50					s
2 5 - 2	50					s
2 5 - 2	75				s	

(2 4 .4).53 . . 84 0

. 4 -),4, SUPERSEDES-),
 -),4, SUPERSEDES-),
 -),4, SUPERSEDES-),

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables
EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle
5015 Camp Rear Release Matrix
22992 Class 1
Back-Shell's
Options Others

38999



Coax Contacts CABLE USAGE GUIDE, cont.

Part Number	Nominal Size	Material	Finish	Plating	Connectors	Contacts
2 5 - 2	50			s	s	s
RD-316	50		s			
2 - 2	50		s		s	
5022A1311-D	50		s			
FA-19X	50		s			
LEX	50		s			
LEX	50		s			
LEX	50		s			
* 7 4	50		s			
* 7 5	75		s			
PAN6422XQ	50		s			
0 8 9	75		s			
PAN6595XM	75		s			
(A)	51-04486		s			
	81-00207		s			
	7		s			
	CXN3403		s			
Times	AA3248		s			
	11299		s			
2401	5021D1331-0	50	s			
	5021D1331-9	50	s			
	5022D1312-9	50	s			
	7527A1318	75	s			
	9527A1314	95	s			
	9528A1318	95	s			
	9530A5314	95	s			
9530D5314	95	s				
Thermatics	2929-29		s			
Tensolite	4		s			
RAK	50C-25A-DS-1		s			
	ESC352001	50	s			
	ESC432101	50	s			

AMPHENOL

SIZE 16

RAK
RAK
RAK
RAK

SIZE 12

RAK
RAK
RAK
RAK

SIZE 8

RAK
RAK
RAK
RAK

AMPHENOL

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



Amphenol

4,

6 2-3

The MIL-DTL-38999 family offers these features for contact termination flexibility:

4,

s3E

s3E

s3E

s3E

s3E

42462

protection for contacts

3

s3E

s3E

GENERAL ORDERING INFORMATION

4,

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

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s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E

s3E



TV-R, Tri-Start, D38999 Series III

- High performance capability series for both general duty and severe environment applications
 - Offers the widest range of Subminiature Family Mil-Spec qualified options in contact and connector styles
 - Threaded coupling; completely mates in one turn; crimp termination
 - Superior EMI/EMP shielding effectiveness
 - Scoop-proof design (recessed pins)
 - Available in aluminum, stainless steel and firewall, or lightweight composite styles
- See 38999 section Series III for complete



JT-R, D38999 Series II

See 38999 section Series II, JT for complete information on this series.

- Shorter profile connector series for applications requiring maximum space savings
- Bayonet coupling, crimp termination
- Also available in solder termination types under MIL-DTL-27599 Series II



LJT-R, D38999 Series I

See 38999 section Series I, LJT for complete information on this series.

- Scoop-proof (recessed pins)
- Bayonet coupling, crimp termination
- Also available in solder termination types under MIL-DTL-27599 Series II



Amphe-Lite, 38999 Type

See Catalog 12-094 for complete information on this series.

- Commercial/Industrial 38999 Series III type
 - Cost effective high performance connector for severe environments or general duty industrial applications
 - Consult Amphenol Industrial Operations for further information
- 12-094 catalog is on-line at www.amphenol-industrial.com.



SJT-R, 38999 Type

See the SJT section of this catalog.

- Amphenol proprietary series (non-MS) which is a further expansion of the basic JT family, but incorporates the LJT scoop-proof design
- Compliant with several European specifications

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

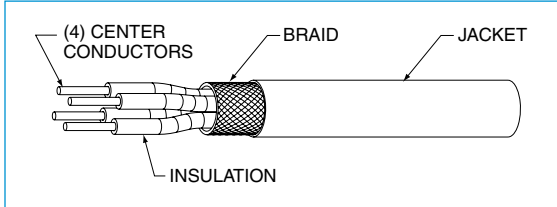
22992
Class 1

Back-
Shells

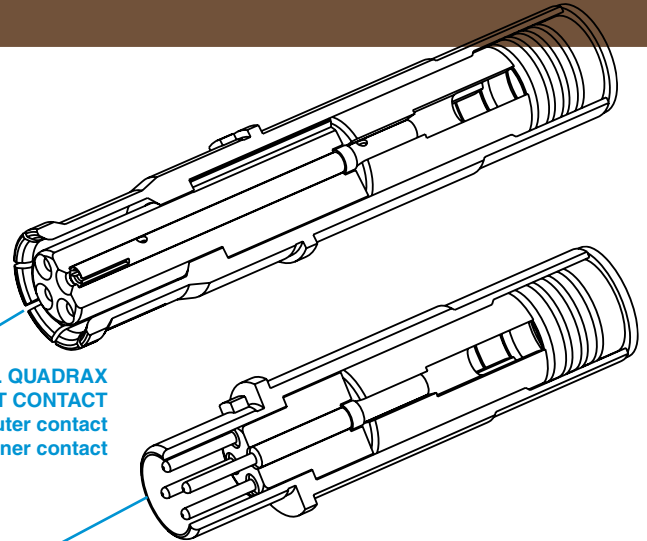
Options
Others

38999-III - Offer several

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



Cable Illustration - Quadrax Contact



TYPICAL QUADRAX SOCKET CONTACT
has socket outer contact with a socket inner contact

TYPICAL QUADRAX PIN CONTACT
has pin outer contact with a pin inner contact



Quadrax Pin with 8P8C "RJ45" Jack



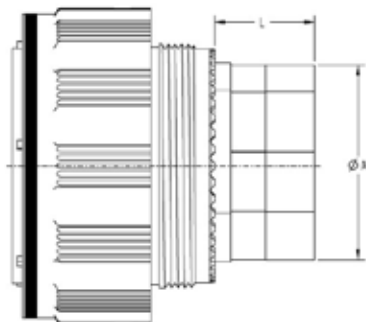
Quadrax Pin Size 8 and MIL-DTL-38999 Series III Connector

Quadrax Contacts are gold plated, crimp termination

Quadrax Size 8 Contact Performance:

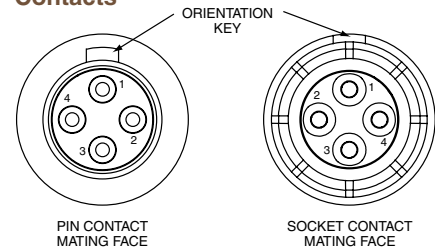
- s ADFH 50 (Z)
- s AA 2000 EFS
- s 6000
- sea level
- 6
- 6
- AD

Guide for selecting a Backshell:



Series	A Dia Min	L Min
17		
19		
21		
23		
25		

Suggested Numbering for Quadrax Contacts



Suggested Strain Relief - Insert Arrangements 9-5 or 19-18 with Quadrax Contacts

- 7 2 ADB
- 4 2
- .45
- AD
- AD
- AD

TV-R Series, MIL-DTL-38999 Series III* Connectors

38999

QUADRAX CONTACTS FOR USE IN TV-R CONNECTORS							
Cable	NUMBER (Termination Instruction Sheet)**		MATE HMS	Inner 7	Contact E	Electrical Protocol††	FUND Inner Contact
	Pin	KEY					
40 0 3 8 3	21-033384-021 (L-2119-A)	21-033385-021 (L-2119-A)		24		Ethernet, 1000 Base-T Gigabit Ethernet	
1 0 8 8 1 49 27 2 3 8 4 8 1 1 4	21-033384-051 (L-2119-D)	21-033385-051 (L-2119-D)		24		Ethernet, 1000 Base-T Gigabit Ethernet	
1 1 2 2	21-033384-061 (L-2119-H)	21-033385-061 (L-2119-H)		22		Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	
1 1 0 Wirenetics W-3714-379	21-033384-071 (L-2119-AB)	21-033385-071 (L-2119-AB)	100	26		Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	
3 7 -3 4	21-033384-141 (BACC47GM1)	21-033385-141 (BACC45GN1)		24			
2 2	21-033384-151 (L-2119-AW)	21-033385-151 (L-2119-AW)		26		Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	
1 3 1 5	21-033384-161 (L-2119-BE)	21-033385-161 (L-2119-BE)		24	8	Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	
2 2 *39	21-033384-171 (L-2119-BN)	21-033385-171 (L-2119-BN)		22		Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	Positioner K709
1 1 1	21-033384-181 (L-2119-BP)	21-033385-181 (L-2119-BP)		22		Ethernet (100 Mbps), 1000 Base-T Gigabit Ethernet (1 Gbps)	
1 1	21-033384-191 (L-2119-BS)	21-033385-191 (L-2119-BS)		24		*Serial FPDP Applications (2.5 Gbps) (Typical app run at 150 Ohms) •HDMI 1.3	
2 2	21-033384-301	21-033385-301		24			
53 ,8	21-033384-101†	21-033385-101†	90			USB2.0 (480 Mbps)	
8	21-033384-211	21-033385-211		24		IEEE 1394B Firewire	
*39 *39	21-033384-221	21-033385-221		24		IEEE 1394B Firewire	
2 2 *39	21-033384-231	21-033385-231	110	24		IEEE 1394B Firewire	
8 3 1 5	21-033384-241†	21-033385-241†		24		IEEE 1394B Firewire	
3 +	21-033384-281	21-033385-281	100			Meets EN3155-074	
8 , ORE 2 .	21-033384-31 (L-2119-B)	21-033385-031 (L-2119-B)	150	26			

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shell

- Options
- Others

(2 4 . 4) . 5 3 . . 8 4 0
QUADRAX CONTACT DATA

AMPHENOL NNO E

FD

AMPHENOL

AMPHENOL

AMPHENOL

AMPHENOL

AMPHENOL

AMPHENOL

38999

TV-R Series, MIL-DTL-38999 Series III* Connectors

QUADRAX CONTACTS FOR USE IN TV-R CONNECTORS

Cable	GORE (Termination Instruction Sheet)**		IMPEDANCE HVS	Inner 7	Contact E	Electrical Protocol††	MATE	
	Pin	Part No.					Inner Contact	Outer Contact
Tensolite 26473/02006X-4(LD) Same as 21-033384/5-31 but box pattern (not for new designs, use 21-033450/1 series) Gore RCN8328	21-033384-201†	21-033385-201†	150	26	8	Fibre-Channel (1 GBPS, 2 GBPS, 1G/2G), 1000 Base-CX (1.25 GBPS), SCSI-2 (3.2 GBPS)	M22520/2-01 with Positioner M22520/2-37 or with Daniels Positioner K709	M22520/5-01 with Die Set M22520/5-45 (Location A)
Gore RCN7625	21-033384-271	21-033385-271						
Tensolite 26473/02006X-4(LD), Gore RCN8328	21-033450-001 (L-2119-BW)	21-033451-001 (L-2119-BW)		26				
Tensolite 26473/02006X-4(LD), Gore RCN8328 (same as 21-033450/1-1 except box pattern. Mates with 21-033450/1-11 only.	21-033450-011†	21-033451-011†		26		Fibre-Channel (1 GBPS, 2 GBPS, 1G/2G), 1000 Base-CX (1.25 GBPS), SCSI-2 (3.2 GBPS)		

Pin	Part No.	IMPEDANCE HVS	L Dim	Notes
21-033398-021	21-033397-021	100 Ohm	1.035	X
21-033398-031	21-033397-031	100 Ohm	0.866	
21-033398-061	21-033397-061	150 Ohm	1.035	
21-033398-071	21-033397-071	150 Ohm	0.494	X
21-033398-081	21-033397-081	150 Ohm	0.780	X
21-033398-091	21-033397-091	100 Ohm	0.840	X
21-033398-111	21-033397-111	100 Ohm	0.708	
21-033398-121	21-033397-121	100 Ohm	0.859	
21-033398-131	21-033397-131	150 Ohm	0.780	X
21-033398-141	21-033397-141	100 Ohm	0.615	
21-033398-151	21-033397-151	150 Ohm	0.815	
21-033398-191	21-033397-191	100 Ohm	0.605	
21-033398-211	21-033397-211	150 Ohm	0.815	X
21-033398-221	21-033397-221	100 Ohm	0.775	
21-033398-231	21-033397-231	100 Ohm	0.494	
21-033398-241	21-033397-241	100 Ohm	0.741	
21-033398-251	21-033397-251	100 Ohm	0.788	
21-033398-271	21-033397-271	100 Ohm	0.741	
21-033398-281	21-033397-281	100 Ohm	0.806	
21-033398-291	21-033397-291	100 Ohm	1.035	
21-033398-301	21-033397-301	100 Ohm	0.836	
21-033398-311	21-033397-311	100 Ohm	0.940	
21-033398-341	21-033397-341	100 Ohm	0.901	
21-033398-351	21-033397-351	100 Ohm	0.871	
21-033398-361	21-033397-361	100 Ohm	0.939	
21-033398-371	21-033397-371	100 Ohm	0.672	
21-033398-381	21-033397-381	100 Ohm	0.914	
21-033398-391	21-033397-391	100 Ohm	0.360	
21-033398-401	21-033397-401	100 Ohm	1.009	
21-033398-411	21-033397-411	150 Ohm	0.866	
21-033398-421	21-033397-421	100 Ohm	1.169	
21-033398-431	21-033397-431	100 Ohm	0.819	
21-033398-451	21-033397-451	150 Ohm	0.494	
21-033398-461	21-033397-461	100 Ohm	0.761	
21-033398-471	21-033397-471	100 Ohm	0.889	
21-033398-481	21-033397-481	100 Ohm	0.971	
21-033398-491	21-033397-491	100 Ohm	0.418	
21-033398-501	21-033397-501	100 Ohm	0.875	
21-033398-511	21-033397-511	100/150 Ohm	0.699	
21-033398-521	21-033397-521	100 Ohm	0.582	
21-033398-531	21-033397-531	100 Ohm	0.666	
21-033398-541	21-033397-541	100 Ohm	0.946	
21-033398-551	21-033397-551	100 Ohm	0.788	X
21-033398-561	21-033397-561	100 Ohm	0.815	

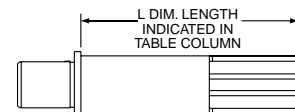
Pin	Part No.	IMPEDANCE HVS	L Dim	Notes
21-033398-581	21-033397-581	100 Ohm	0.721	
21-033398-591	21-033397-591	100/150 Ohm	0.939	
21-033398-601	21-033397-601	100 Ohm	0.939	
21-033398-611	21-033397-611	100 Ohm	1.366	
21-033452-011	21-033453-011	150 Ohm	1.035 (mates to 21-033450/51 series)	
21-033452-021	21-033453-021	150 Ohm	0.815 (mates to 21-033450/51 series)	
21-033452-031	21-033453-031	150 Ohm	0.815 (mates to 21-033450/51 series)	X
21-033452-041	21-033453-041	150 Ohm	0.866 (mates to 21-033450/51 series)	
21-033452-051	21-033453-051	150 Ohm	0.494 (mates to 21-033450/51 series)	
21-033452-061	21-033453-061	150 Ohm	0.582 (mates to 21-033450/51 series)	
21-033452-071	21-033453-071	150 Ohm	0.939 (mates to 21-033450/51 series)	

†† Test reports available for

 21-033321-005

SEALING PLUGS	
Standard Plastic	T3-4008-59P
Standard Plastic to be used with PCB tails (shorter tail length)	T3-4008-59P1
Metal sealing plug - can be used when mating with contacts on mating half	21-033899-8Q1
Metal sealing plug used with PCB's and mating contact on mating half	21-033899-8Q2

PIGGYBACK GROMMET	
Connectors	
Metallized piggyback grommet	21-033321-023



New "Split-Pair" Quadrax Contacts & Cables

Assemblies for MIL-DTL-38999, Series III



Features & Benefits/How to Order

"Split-Pair" for use with CAT6A Type Cable

Amphenol Aerospace offers the high performance interconnect solution for CAT6A type cable.

FEATURES & BENEFITS:

- Overall higher bandwidth than standard CAT5E quadrax-Supports up to 6.5 Gbps per pair
- Enhanced crosstalk performance (compared to standard quadrax) due to compatibility with shielded twisted pair of cables
- Can be used for a variety of high speed applications beyond current quadrax design**
- Four strategically spaced inner contacts form two 100 Ohm matched impedance differential pairs
- Outer contact has rugged wall section for durability
- Available in size 8 crimp termination style
- Also available in size 8 PC tails
- Can be installed into existing quadrax contact connector cavities
- Requires modification of MIL-DTL-38999 connector to accommodate keyed contacts

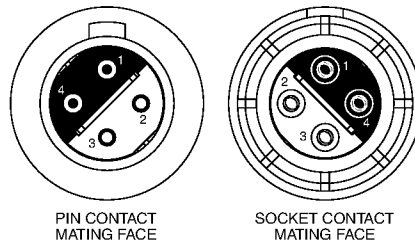
APPLICATIONS:

For use with, but not limited to, the following electrical protocols :

- 10/100/1000/10GBASE-T Ethernet
- DVI
- USB 2.0, 3.0
- Serial Rapid IO (up to 3.125 Gbps)
- PCI-Express 2.0
- HDMI 1.3a
- SATA 2.0 (up to 3 GHz)

Cable selection may limit data rate of above protocols

Suggested Numbering for Quadrax Contacts



Differential Pairs: 1 & 4, 2 & 3

SPLIT-PAIR QUADRAX CONTACT*

PART NUMBERS:

Crimp Style Part Number	Cable	AWG
PIN 21-033470-001	Thermax 1536-224	24
SOCKET 21-033471-001	Thermax 1536-224	24
PIN 21-033470-021	Thermax 1536-195	26
SOCKET 21-033471-021	Thermax 1536-195	26

CRIMP TOOLS:

Outer Contact	Inner Contact
DANIELS M22520/5-01 with die set Y1999 or M22520/5-45	DANIELS M22520/2-01 with positioner K1777

Daniels crimping tools are available from Daniels Mfg. Corp. 6103 Anno Ave., Orlando, FL 32809

REMOVAL TOOL: [M81969/14-12](#)



MIL-DTL-38999 Series III Connectors with "Split-Pair" Quadrax Contacts for use with CAT6A Type Cable



"Split-Pair" Quadrax Contacts for use with CAT6A Type Cable

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

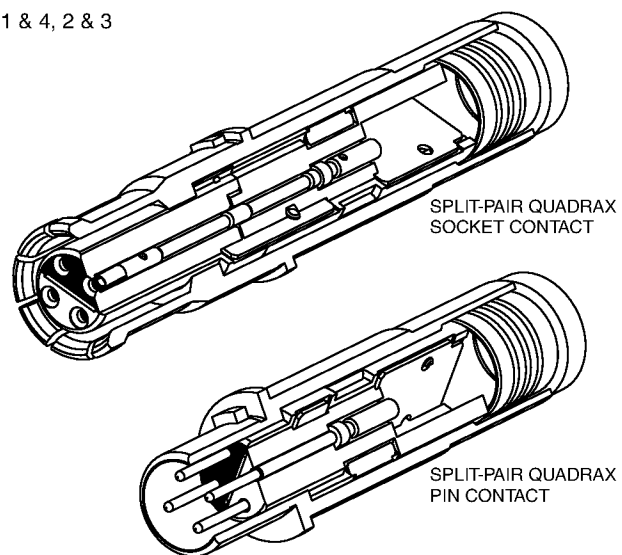
26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others



* Patent pending.



38999

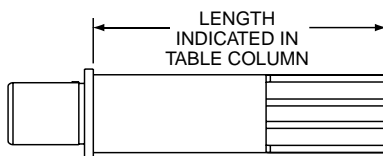
PCB QUADRAX PIN

PCB Pin Part Numbers	Impedance	Length ±.015
21-033466-011	100 Ohm	1.035
21-033466-021		.815
21-033466-031*		.815
21-033466-041		.866
21-033466-051		.494
21-033466-061		.582
21-033466-071		.815
21-033466-081		.840

PCB QUADRAX SOCKET

PCB Socket Part Numbers	Impedance	Length ±.015
21-033467-011	100 Ohm	1.035
21-033467-021		.815
21-033467-031*		.815
21-033467-041		.866
21-033467-051		.494
21-033467-061		.582
21-033467-071		.815
21-033467-081		.840

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables



42.3)4). 0423 2 , 5. (.) . 3) . , 3 4 0 2 3

100 OHM QUADRAX TRANSITION ADAPTERS FOR LAUNCHING CONTROLLED IMPEDANCE SIGNALS TO PC BOARDS						
QUADRAX PIN	QUADRAX SOCKET	QUADRAX PIN	QUADRAX SOCKET		IMPEDANCE	PART NUMBER
			Pin	Receptacle		
21-033466-011	21-033467-011			21-033468-011	100	21-033468-011
21-033466-021	21-033467-021				100	21-033469-001
21-033466-031*	21-033467-031*				100	21-033469-011
21-033466-041	21-033467-041				100	21-033469-021
21-033466-051	21-033467-051				100	21-033469-031

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

New "Split-Pair" Quadrap Contacts



FREQUENCIES OF INTEREST

Frequency (GHz)	Insertion Loss (dB)	Return Loss (dB)	NEXT (dB)	FEXT (dB)
0.1				
0.24				
0.5				
0.625				
1				
1.25				
1.5				
1.7				
2				
2.5				
3				

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

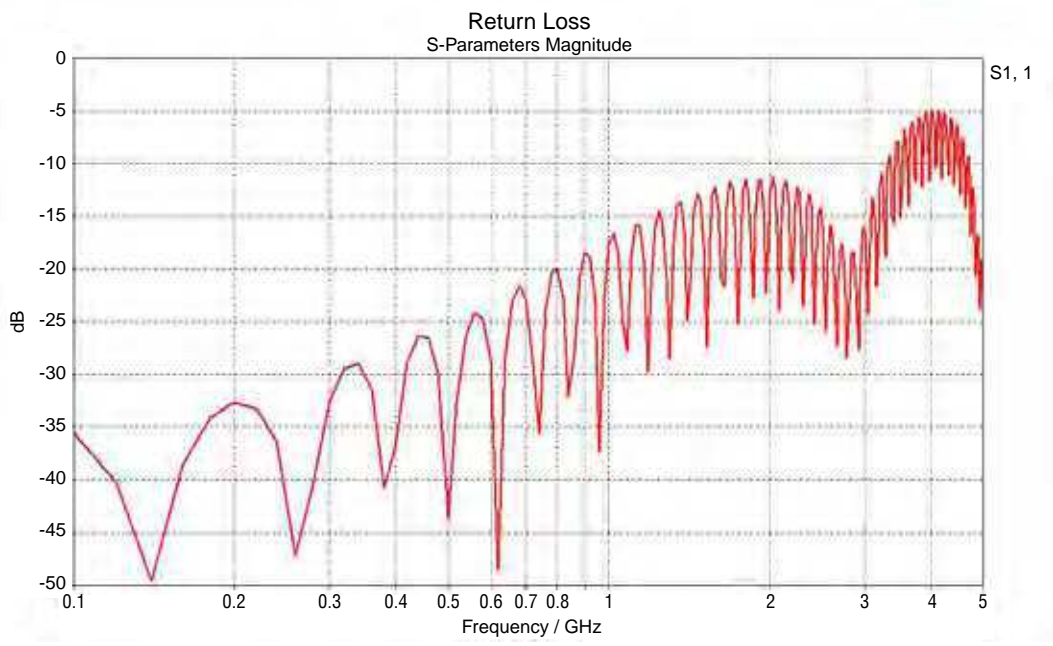
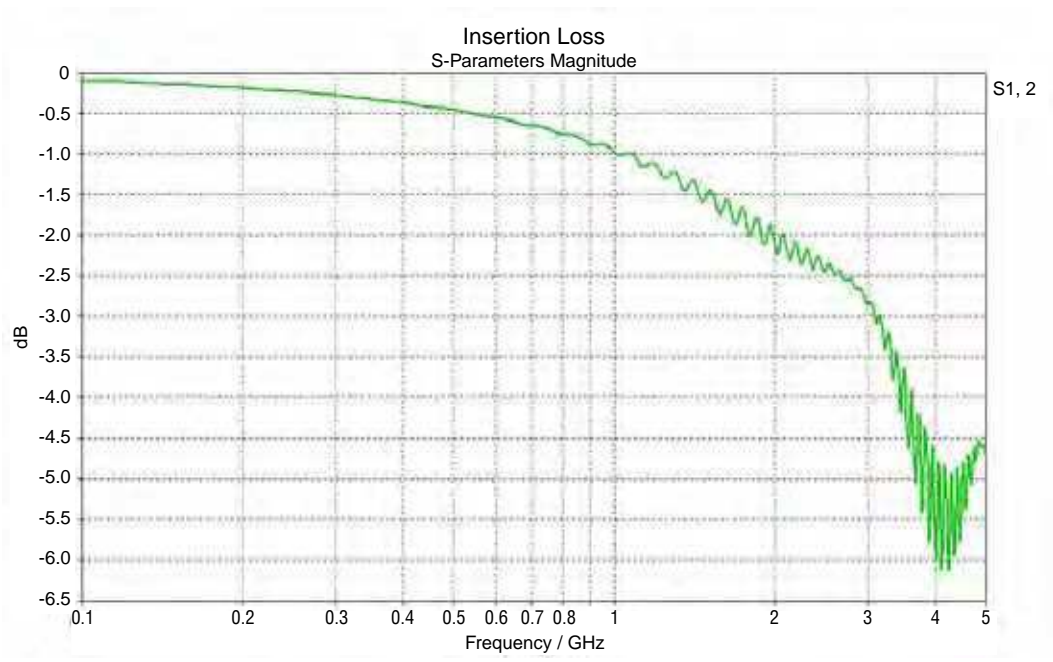
Back-
Shells

Options
Others

PERFORMANCE DATA



Amphenol® 3





38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

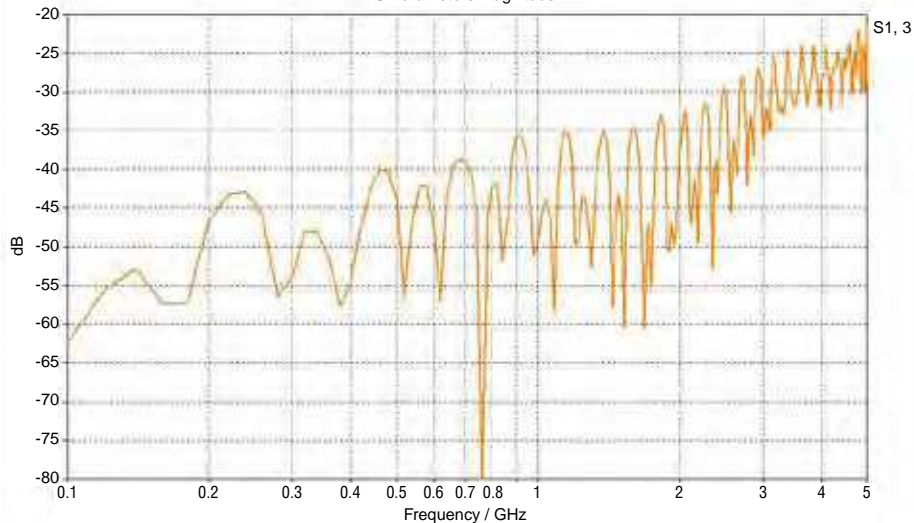
5015
Crimp Rear
Release
Matrix

22992
Class 1

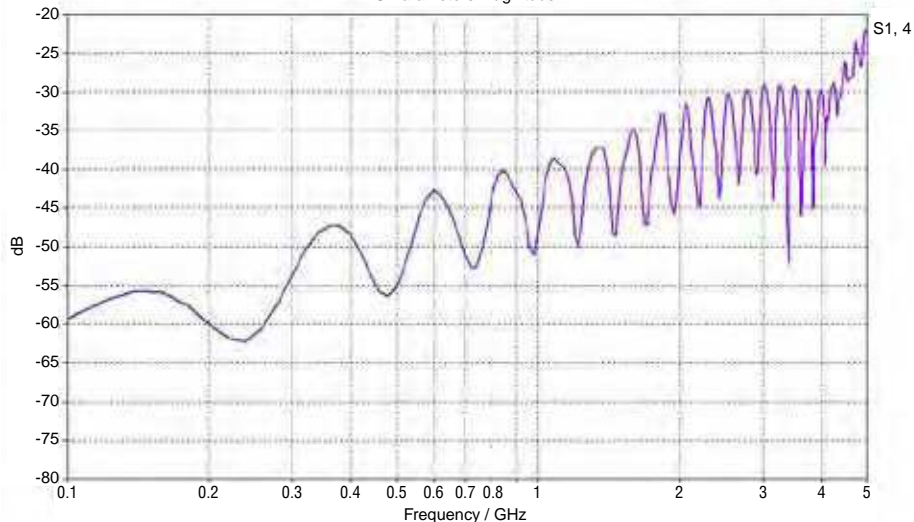
Back-
Shells

Options
Others

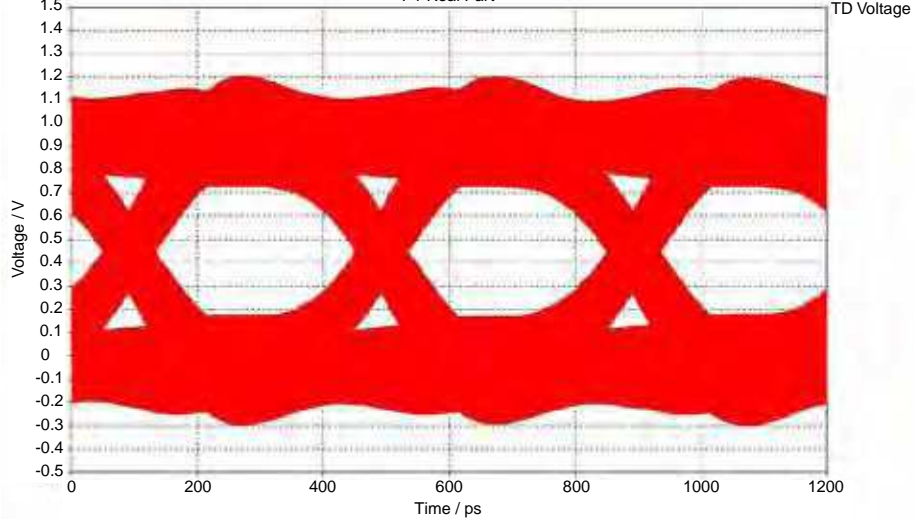
Near-end Crosstalk
S-Parameters Magnitude



Far-end Crosstalk
S-Parameters Magnitude

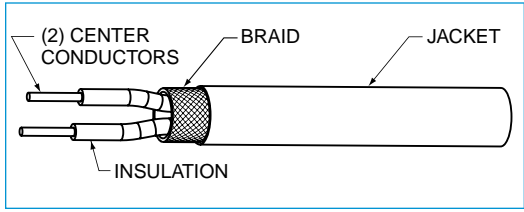


2.5 Gps Eye Pattern (PRBS n=15)
P1 Real Part

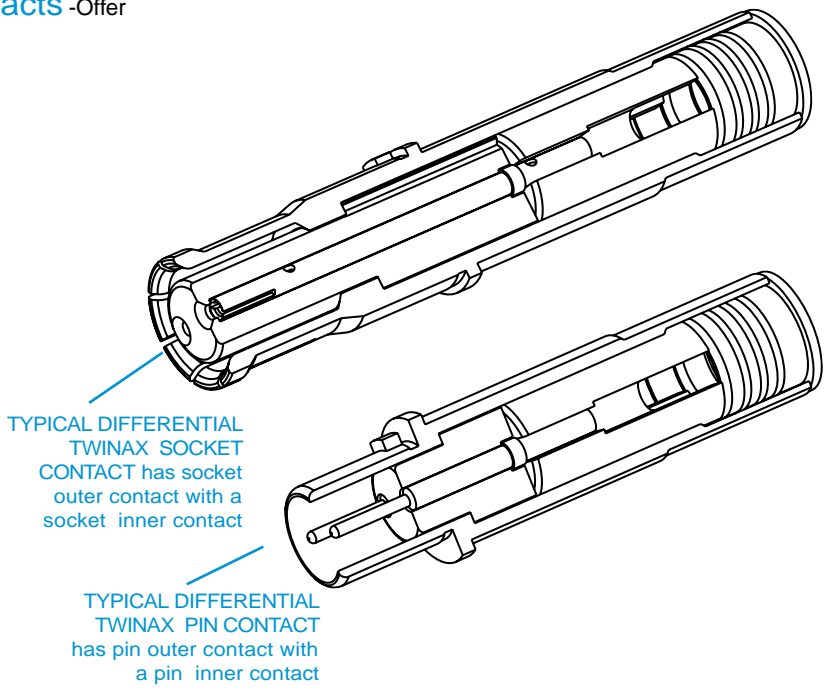


Amphenol® Differential Twinax Contacts -Offer

MIL-DTL-38999
 Class I
 Shell 1
 Contact 1
 Contact 2
 Contact 3
 Contact 4
 Contact 5
 Contact 6
 Contact 7
 Contact 8
 Contact 9
 Contact 10
 Contact 11
 Contact 12
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 Contact 99
 Contact 100



Cable Illustration - Differential Twinax Contact

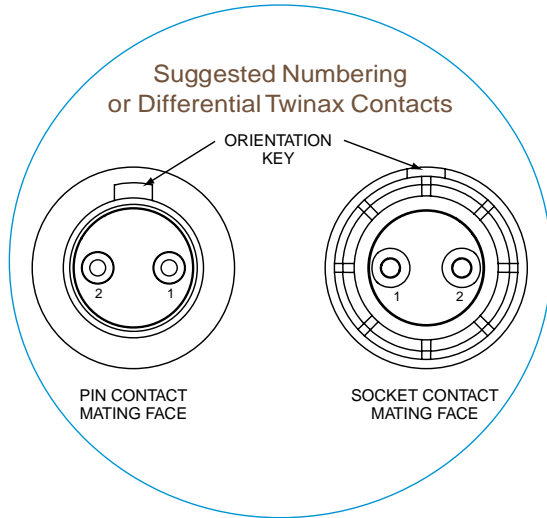


Differential Twinax Socket Contact



Differential Twinax Pin Contact

Differential Twinax Contacts are Gold plated, Crimp Termination
 Differential Twinax Size 8 Contact Performance:
 MIL-DTL-38999 (Z)
 MIL-DTL-38999 BPS
 MIL-DTL-38999 BAK MA
 MIL-DTL-38999 6 MA
 MIL-DTL-38999 6 MA
 MIL-DTL-38999 6 MA



38999
III
HD
Duallok
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SJT
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Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables

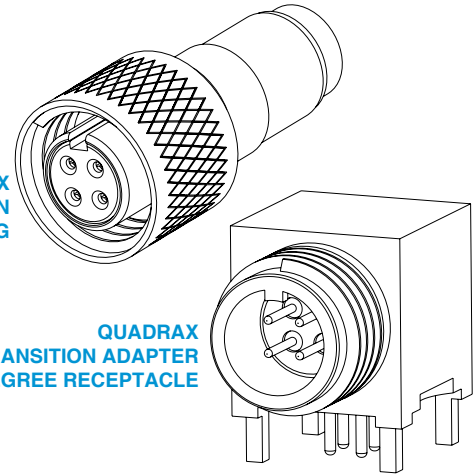
EMI Filter
Transient
26482
Matrix 2
83723 III
Matrix | Pyle
26500
Pyle
5015
Crimp Rear Release Matrix
22992
Class 1
Back-Shell
Options Others

General Description

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

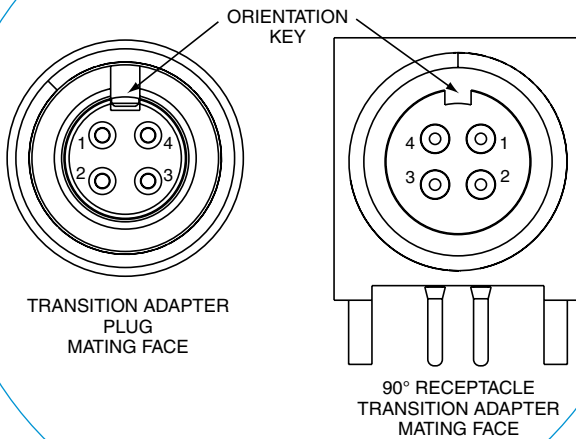
Amphenol® Transition Adapters - Are used to facilitate launching of controlled impedance signals to printed circuit boards. Amphenol provides transition adapters in both contact types:

- Quadrax transition adapters, 90° or straight receptacles threaded or cable to board style
- Differential twinax transition adapters, 90° or straight receptacles, threaded or cable to board style



90° Quadrax Receptacle and Plug Transition Adapter

Suggested Numbering for Transition Adapters with Quadrax Contacts



90° Differential Twinax Receptacle and Plug Transition Adapter

TRANSITION ADAPTER DATA

Finish of mating contact parts: Contacts are supplied gold plated per ASTM B488 Type II, Code C, .000050 min. thick over nickel plate per AMS-QQ-N-290, Class 2, .000030/.000150 thick.

ELECTRICAL PROTOCOLS FOR QUADRAX TRANSITION ADAPTERS

Part Number		Impedance (Ohms)	Electrical Protocol††
Plug	Receptacle		
21-033836-031		100	Ethernet, gigabit Ether
21-033836-041			Ethernet, gigabit Ether
21-033836-051			Ethernet, gigabit Ether
21-033836-061			Ethernet, gigabit Ether
	21-033837-081 (90 degree)		
	21-033837-091 (straight)		
	21-033837-041 (90 degree)		
	21-033837-051 (straight)		Ethernet, gigabit Ether
	21-033837-061 (90 degree)		
	21-033837-141 (90 degree)		
21-033837-101		150	1000 Base CX, Fibre channel
21-033836-021			1000 Base CX, Fibre channel
	21-033837-021 (90 degree)		
	21-033837-211 (jam nut)		
	21-033837-031 (straight)		
	21-033837-071 (90 degree)		
21-033837-111			

ELECTRICAL PROTOCOLS FOR DIFFERENTIAL TWINAX TRANSITION ADAPTERS

Part Number		Impedance (Ohms)	Electrical Protocol††
Plug	Receptacle		
21-033832-81		100	Ethernet
21-033832-21			Ethernet
	21-033833-021 (90 degree)		
	21-033833-031 (90 degree)		
	21-033833-151 (90 degree)		
21-033832-111†			
	21-033833-161† (90 degree)		
	21-033833-171† (90 degree)		
	21-033833-091 (90 degree)		
	21-033833-051 (90 degree)		
	21-033833-141 (90 degree)		
21-033832-91		150	
	21-033833-111 (90 degree)		
	21-033833-181† (90 degree)		
	21-033833-101 (90 degree)		

† Consult Amphenol Aerospace for current release of this adapter.

†† Test reports available for indicated protocols; consult Amphenol Aerospace.

Amphenol® Quadrax Contacts for Printed Circuit Board Attachment- Available for MIL-DTL-38999



Compliant Pin Quadrax and PC Tail Quadrax Contacts

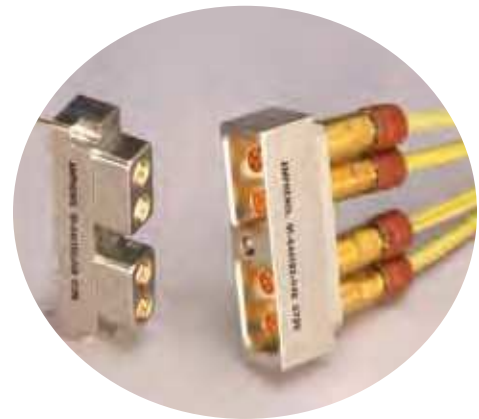
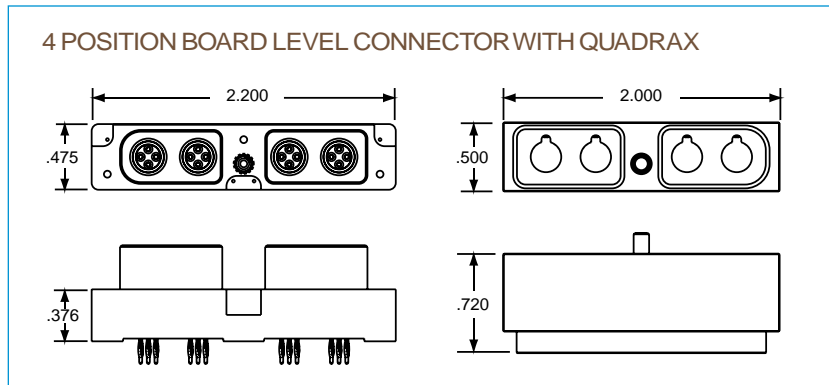
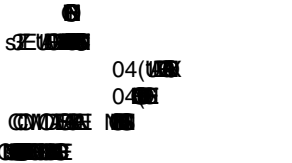


MIL-DTL-38999, SERIES III CONNECTOR WITH PC TAIL CONTACTS. This arrangement has 33 size 22D and 2 Quadrax PC tail contacts.

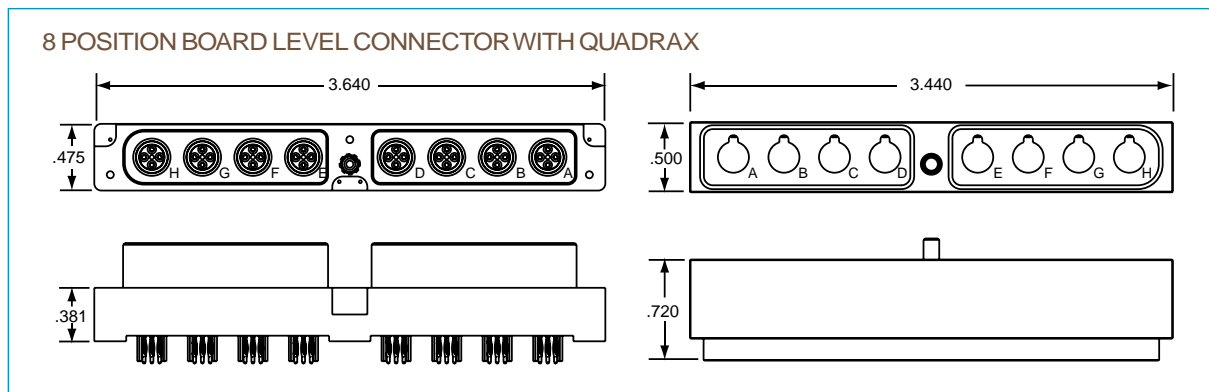
MIL-DTL-38999, SERIES III CONNECTOR WITH PC TAIL CONTACTS. This arrangement has 8 Quadrax PC tail contacts.



Amphenol® Quadrax Contacts for Rectangular Board Level Connectors



Compliant Pin Quadrax Board Level Connector



38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

Options Others

General Description

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

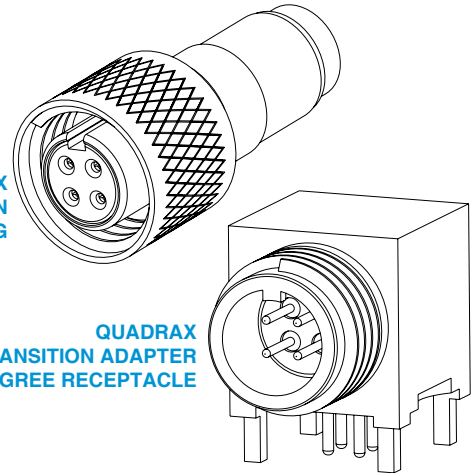
22992
Class I

Back-
Shells

Options
Others

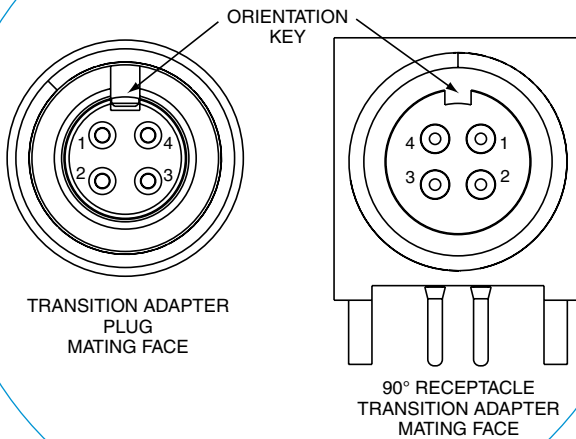
Amphenol® Transition Adapters - Are used to facilitate launching of controlled impedance signals to printed circuit boards. Amphenol provides transition adapters in both contact types:

- Quadrax transition adapters, 90° or straight receptacles threaded or cable to board style
- Differential twinax transition adapters, 90° or straight receptacles, threaded or cable to board style



90° Quadrax Receptacle and Plug Transition Adapter

Suggested Numbering for Transition Adapters with Quadrax Contacts



90° Differential Twinax Receptacle and Plug Transition Adapter

TRANSITION ADAPTER DATA

Finish of mating contact parts: Contacts are supplied gold plated per ASTM B488 Type II, Code C, .000050 min. thick over nickel plate per AMS-QQ-N-290, Class 2, .000030/.000150 thick.

ELECTRICAL PROTOCOLS FOR QUADRAX TRANSITION ADAPTERS

Part Number		Impedance (Ohms)	Electrical Protocol††
Plug	Receptacle		
21-033836-031		100	Ethernet, gigabit Ether
21-033836-041			
21-033836-051			
21-033836-061			
	21-033837-081 (90 degree)		Ethernet, gigabit Ether
	21-033837-091 (straight)		
	21-033837-041 (90 degree)		
	21-033837-051 (straight)		
	21-033837-061 (90 degree)		
	21-033837-141 (90 degree)		
21-033837-101		150	1000 Base CX, Fibre channel
21-033836-021			
	21-033837-021 (90 degree)		1000 Base CX, Fibre channel
	21-033837-211 (jam nut)		
	21-033837-031 (straight)		
	21-033837-071 (90 degree)		
21-033837-111			

ELECTRICAL PROTOCOLS FOR DIFFERENTIAL TWINAX TRANSITION ADAPTERS

Part Number		Impedance (Ohms)	Electrical Protocol††
Plug	Receptacle		
21-033832-81		100	Ethernet
21-033832-21			
	21-033833-021 (90 degree)		Ethernet
	21-033833-031 (90 degree)		
	21-033833-151 (90 degree)		
21-033832-111†			
	21-033833-161† (90 degree)		
	21-033833-171† (90 degree)		
	21-033833-091 (90 degree)		150
	21-033833-051 (90 degree)		
	21-033833-141 (90 degree)		
21-033832-91			
	21-033833-111 (90 degree)	150	
	21-033833-181† (90 degree)		
	21-033833-101 (90 degree)		

† Consult Amphenol Aerospace for current release of this adapter.
†† Test reports available for indicated protocols; consult Amphenol Aerospace.

Quadrax Transition Adapters

For Attachment to PC Boards

Application Data

100 OHM QUADRIX TRANSITION ADAPTERS FOR LAUNCHING CONTROLLED IMPEDANCE SIGNALS TO PC BOARDS							
Quadrax Type Adapter/ Cable or PCB Tail Length	Illustration of Adapter	Part Number (Termination Instruction Sheet)**		Impedance (Ohms)	Mating Thread Size	Crimping Tools	
		Plug	Receptacle			Inner Contact	Outer Contact
Quadrax Plug Adapter/ Tensolite NF24Q100, NF24Q100-01 24443/9P025X-4(LD) S280W502-4 24443/03130X-4(LD) Thermax 956-4TN		21-033836-031 (L-2119-U)		100	.375	M22520/2-01 with Positioner M22520/2-37 or with Daniels Positioner K709	M22520/5-01 with Die Set M22520/5-45 (Location A)
Quadrax Plug Adapter/ Tensolite NF22Q100, NF22Q100-01, Thermax 956-5, Tensolite 24450/030894-4(LD) Draka Fileca F-4704-5		21-033836-041 (L-2119-W)†					
Quadrax Plug Adapter/ Draka Fileca F-4703-3, F-4704-4		21-033836-051 (L-2119-Y)					
Quadrax Plug Adapter/ NF26Q100		21-033836-061 (L-2119-AM)†					
Gore RCN8724 (30 awg)		21-033836-071					
Gore ACN1042 (28 awg) Gore RCN8973		21-033836-101					
Gore RCN 8422		21-033836-131					
Quadrax Plug Adapter/ Hexnut with Lock Wire Holes Tensolite RCN8467		21-033836-081					
Tensolite NF24Q100-01		21-033836-111					
Quadrax Receptacle Straight Adapter in-line jam nut (threaded)/ GSC-10-8273900			21-033837-081 (L-2119-AR)†						100	.375	M22520/2-01 with Positioner M22520/2-37 or with Daniels Positioner K709	M22520/5-01 with Die Set M22520/5-45 (Location A)
Quadrax Receptacle Straight Adapter in-line jam nut (threaded) Tensolite NF24Q100-01		21-033837-261					
Quadrax Receptacle Straight Adapter in-line (threaded)/NF24Q100 Tensolite NF24Q100-01, Tensolite 24443/9P025X -4 (LD), S280W502-4, Tensolite 24443/03130X-4 (LD), Thermax 956-4TN		21-033837-091 (L-2119-BL)					
PCB Quadrax Receptacle 90 Degree Adapter/Tail Length .110		21-033837-041					
PCB Quadrax Receptacle 90 Degree Adapter/Tail Length .200		21-033837-201					
PCB Quadrax Receptacle Straight Adapter/Tail Length .110		21-033837-051					
PCB Quadrax Receptacle Straight Adapter/Special Tail Length (.200)		21-033837-061					
Straight adapter Tail Length .175		21-033837-131					
PCB Quadrax Receptacle Straight Adapter/Tail Length .110 except .019" diameter inner contact tails		21-033837-291					
Quadrax Receptacle 90 degree Adapter with cable to board/ NF24Q100 Tail Length .110		21-033837-141 (L-2119-BB)†		100		M22520/2-01 with Positioner M22520/2-37 or with Daniels Positioner K709	M22520/5-01 with Die Set M22520/5-45 (Location A)
Quadrax Receptacle 90 degree Adapter with cable to board/ ABS1503KD24 Tail Length .110 Tensolite NF22Q100-01 Thermax 956-5 Draka Fileca F4704-5		21-033837-231					
Quadrax Receptacle Straight Adapter with cable to board/ NF24Q100, NF24Q100-01 Tail Length .195		21-033837-101 (L-2119-AN)					
Quadrax receptacle straight adapter w/ cable to board, Tail length .195 Draka Fileca F-4703-3, F-4703-4		21-033837-241					

Daniels crimping tools are available from Daniels Mfg. Corp. 6103 Anno Ave., Orlando, FL 32809

**Termination instructions are packaged with each contact and can be found on-line at:

www.amphenol-aerospace.com/serviceinstructions.asp

† Consult Amphenol Aerospace for current release of this adapter and instruction sheet if applicable.

See electrical protocols for transition adapters on page 234.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



Application Data

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723
- III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release
- Matrix
- 22992
- Class 1
- Back-Shells
- Options
- Others

150 OHM QUADRAX TRANSITION ADAPTERS FOR LAUNCHING CONTROLLED IMPEDANCE SIGNALS TO PC BOARDS								
ORDER NUMBER	PART NUMBER	PART DESCRIPTION	ORDER (Termination Instruction Sheet)**		MATE HMS	AVG	FINISH	
			Q	Receptacle			Inner Contact	Q
Quadrax Plug Adapter/ Tensolite 26473/02006X-4(LD), Gore RCN8328	A		21-033836-021 (L-2119-S)		150	.375	M22520/2-01 with Positioner M22520/2-34	NA
PCB Quadrax Receptacle 90 Degree Adapter/Tail Length .110				21-033837-021			NA	
PCB Receptacle 90 Degree Adapter/ Tail Length .200				21-033837-251				
PCB Quadrax Receptacle Straight Adapter/Tail Length .110				21-033837-031				
Quadrax Receptacle Straight Adapter in-line Jam Nut (threaded) Tensolite 26473/02006X-4 (LD), Gore RCN8328				21-033837-211 (L-2119-BY)				
Quadrax Receptacle 90 degree Adapter with cable to board/ Tensolite 26473/02006X-4				21-033837-071 (L-2119-A)†	150	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-45 (Location A)	
Quadrax Receptacle Straight Adapter with cable to board/ Tensolite 26473/02006X-4 (LD)			21-033837-111 (L-2119-AP)					

Differential Twinax Transition Adapters



100 OHM DIFFERENTIAL TWINAX TRANSITION ADAPTERS FOR LAUNCHING CONTROLLED IMPEDANCE SIGNALS TO PC BOARDS									
PART NUMBER	DESCRIPTION	DRAWING	TERMINATION (Termination Instruction Sheet)**		MATE HVS	PITCH	FUNCTION		
			PCB	Receptacle			Inner Contact	PCB	
24463/9P026X-2	Differential Twinax Plug Adapter/ M17/176-00002 (77 ohms)		21-033832-081 (L-2119-AJ)		100	.3125	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-05 (Location B)	
			21-033832-021 (L-2119-P)						
				21-033833-021					
				21-033833-031					
	PCB Differential Twinax Receptacle 90 Degree Adapter/ Tail Length .110			21-033833-151			N/A	N/A	
	PCB Differential Twinax Receptacle Straight Adapter/ Tail Length .110								
	PCB Differential Twinax Receptacle Straight Adapter/ Tail Length .165								
21-033832-111†	Differential Twinax Plug Adapter/ Tensolite CAN22TDT120 (120 Ohm)		21-033832-111†		100	.375	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-45 (Location A)	
									21-033833-161†
									21-033833-171†
	PCB Differential Twinax Receptacle 90 degree Adapter/Tail Length .283						N/A	N/A	
	PCB Differential Twinax Receptacle Straight Adapter/Tail Length .283								
21-033833-091 (L-2119-AF)	Differential Twinax Receptacle 90 degree Adapter (low profile) with cable to board/ Tensolite 24463/9P026X-2		21-033833-091 (L-2119-AF)		100	N/A	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-45 (Location A)	
									21-033833-051 (L-2119-V)
									21-033833-141 (L-2119-BU)
	Differential Twinax Receptacle 90 degree Adapter with cable to board/ Tensolite 24463/9P025X-2								
	Differential Twinax Receptacle 90 degree Adapter with cable to board/ Tensolite 24463/9P025X-2								

150 OHM DIFFERENTIAL TWINAX TRANSITION ADAPTERS FOR LAUNCHING CONTROLLED IMPEDANCE SIGNALS TO PC BOARDS									
PART NUMBER	DESCRIPTION	DRAWING	TERMINATION (Termination Instruction Sheet)**		MATE HVS	PITCH	FUNCTION		
			PCB	Receptacle			Inner Contact	PCB	
21-033832-091 (L-2119-BR)	Differential Twinax Plug Adapter/ M17/176-00002 (77 ohms)		21-033832-091 (L-2119-BR)		150	.375	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-45 (Location A)	
									21-033833-111
									21-033833-181†
	PCB Differential Twinax Receptacle 90 Degree Adapter/ Tail Length .110						N/A	N/A	
	PCB Differential Twinax Receptacle Straight Adapter/ Tail Length .110								
	PCB Differential Twinax Receptacle Straight Adapter/ Tail Length .165								
21-033833-101 (L-2119-BM)†	Differential Twinax Receptacle 90 degree Adapter (low profile) with cable to board/ Tensolite 24463/9P026X-2		21-033833-101 (L-2119-BM)†		150	N/A	M22520/2-01 with Positioner M22520/2-34	M22520/5-01 with Die Set M22520/5-45 (Location A)	
									21-033833-051 (L-2119-V)
	Differential Twinax Receptacle 90 degree Adapter with cable to board/ Tensolite 24463/9P025X-2								
	Differential Twinax Receptacle 90 degree Adapter with cable to board/ Tensolite 24463/9P025X-2								

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

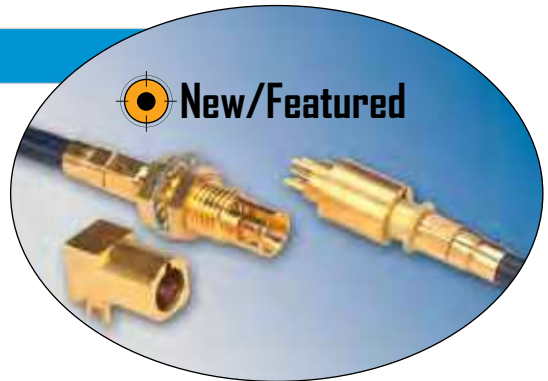
22992 Class 1

Back-Shell's

Options Others

38999

Micro D-Twinax Transition Adapters



Micro D-Twinax Transition Adapters
Shown right: Straight receptacle mated to plug
Shown left: Jam nut and 90° receptacle

- III
- HD
- Dual
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PCB tail footprint

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

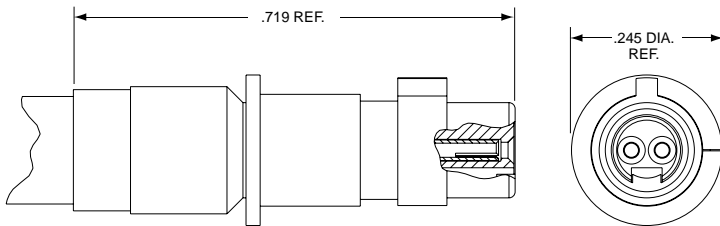
- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shells

- Options Others

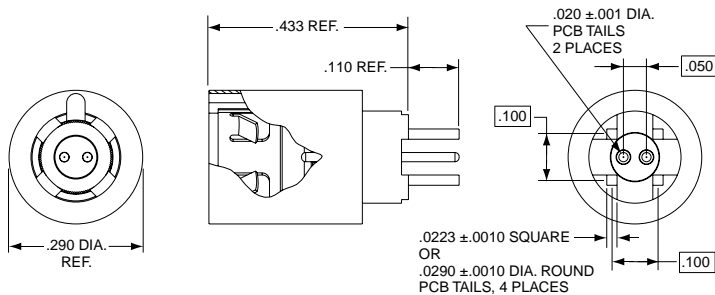
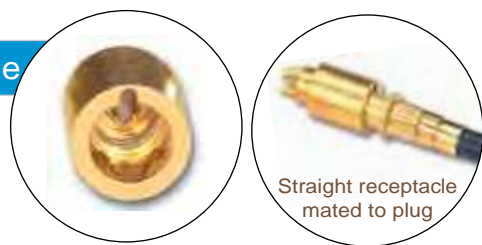
Micro D-Twinax Transition Adapter Plug



ORDER	AE#	MS#
21-033832-151	Calmont 3007-1923-12-7	100
21-033832-161	ENSOLITE 8, MAX :	
21-033832-121**	Calmont 3007-1923-12-7	

* See page 240 for information on other cable terminations.
** Same as -151 with extended ferrule for added cable support

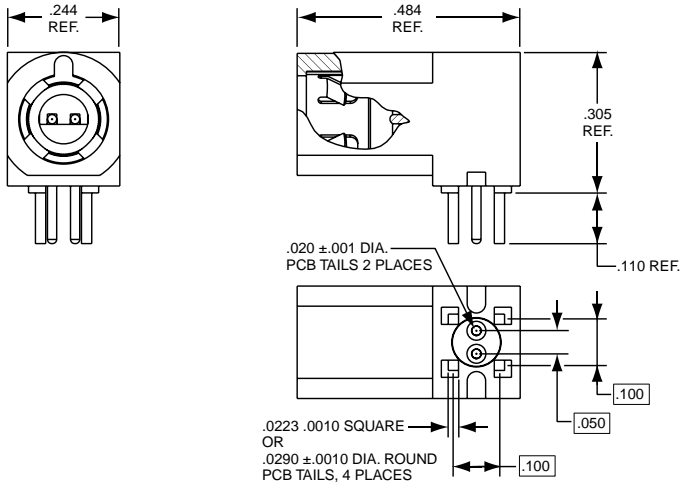
Micro D-Twinax Transition Adapter Straight PCB Receptacle



ORDER	MS#
21-033833-191	100



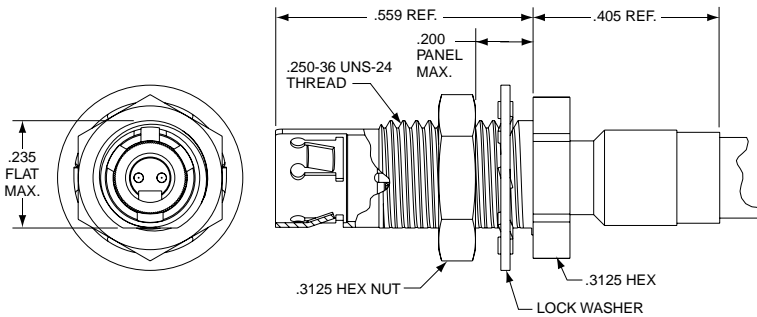
Micro D-Twinax Transition Adapter 90° PCB Receptacle



ORDER	PRICE	QTY
21-033833-201		
21-033833-281		
LENGTH		100

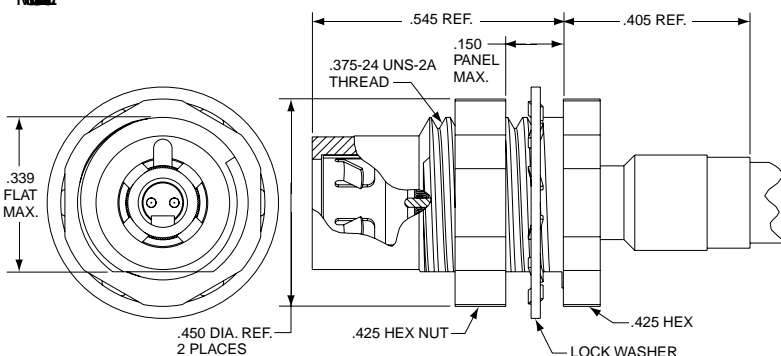
Micro D-Twinax Transition Adapter Jam Nut Receptacles

Jam Nut Receptacle, Style 1



ORDER	PRICE	QTY
21-033833-241	Calmont 3007-1923-12-7	
21-033833-261	ENSOLITE 8 , MAX :	100
21-033833-211**	Calmont 3007-1923-12-7	

Jam Nut Receptacle, Style 2



ORDER	PRICE	QTY
21-033833-251	Calmont 3007-1923-12-7	
21-033833-271	ENSOLITE 8 , MAX :	100
21-033833-231**	Calmont 3007-1923-12-7	

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix 1 Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

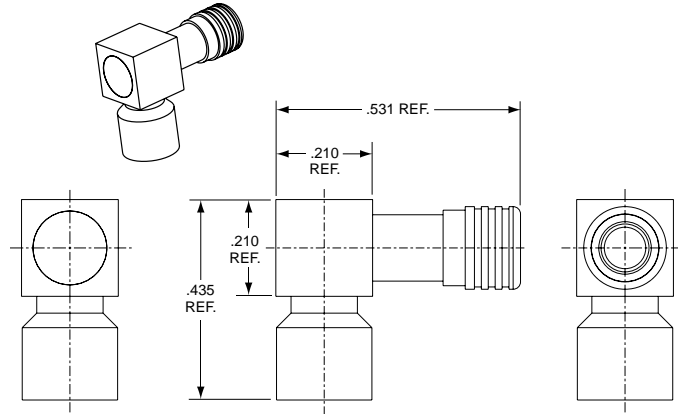
Options Others

- 38999
- III
- HD
- Dual
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

90° Bushing Assemb lies for use with Wired Micro D -Twinax Transition Adapters



90° Bushing Assemb ly with Jam Nut Micro D Transition Adapter



LSHGBMY
21-033425-201

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

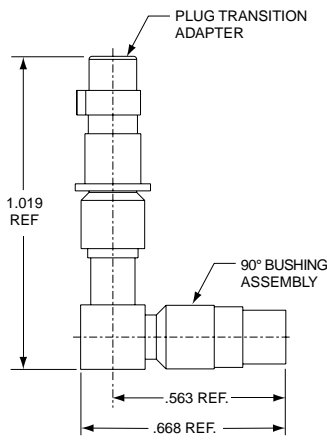
26500 Pyle

5015 Crimp Rear Release Matrix

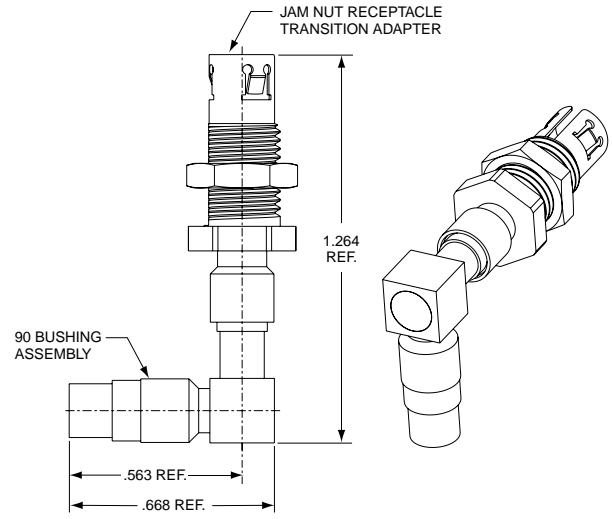
22992 Class I

Back-Shells

Options Others



LSHGBMY
21-033425-201



LSHGBMY
21-033425-201

- LSHGBMY
- 21-033425-201
- S
- S IANK
- S IANK
- S IANK

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

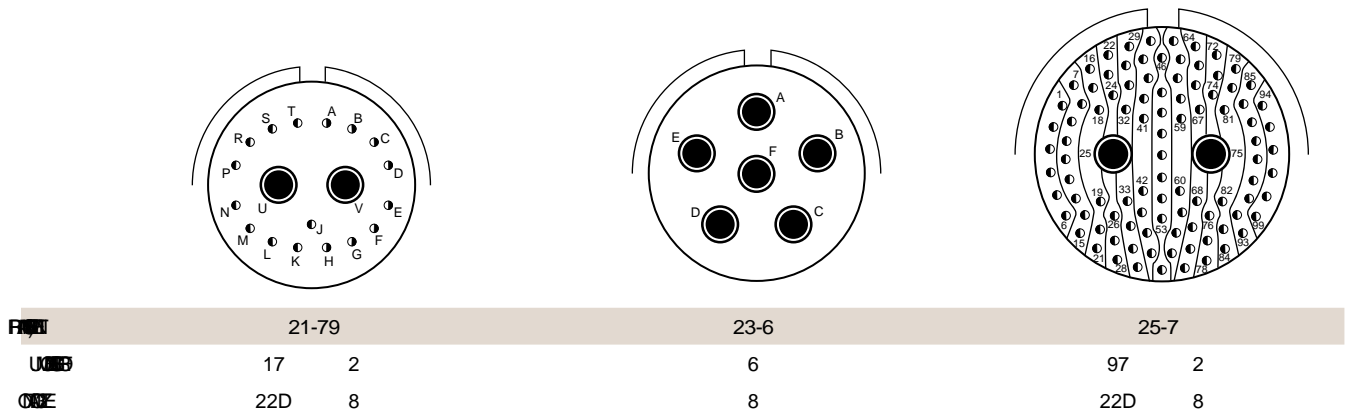
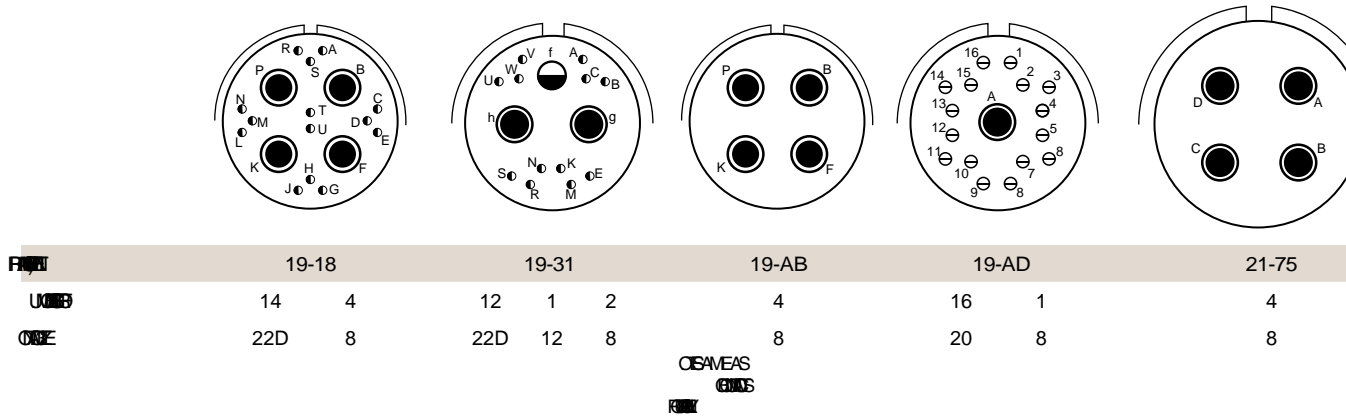
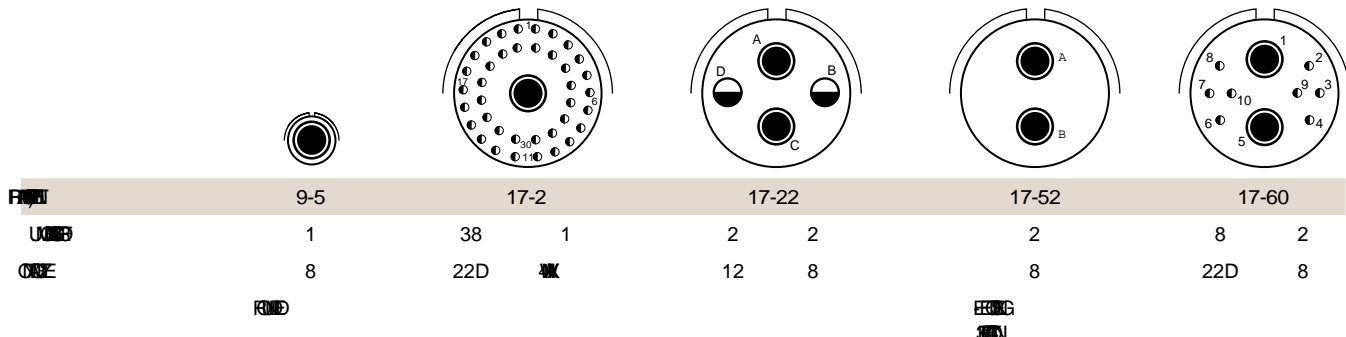
5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

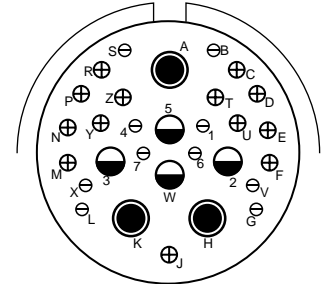
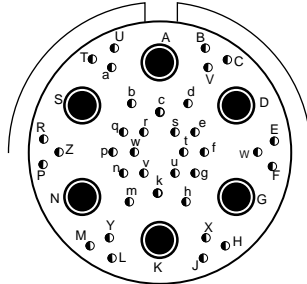
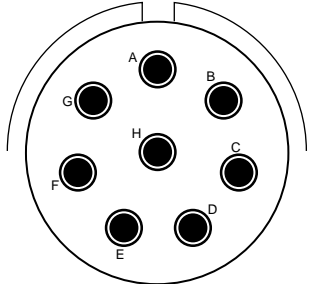
Options
Others

Front face of pin inserts illustrated

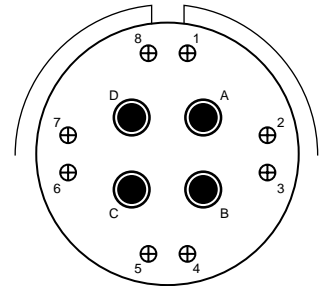
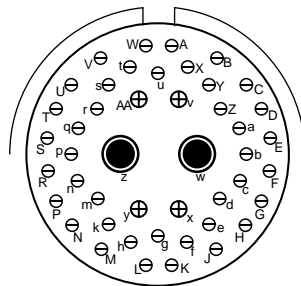
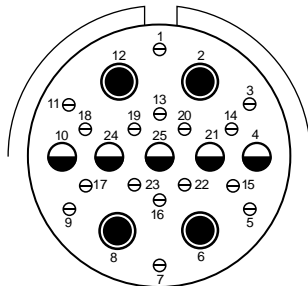


38999

Front face of pin inserts illustrated



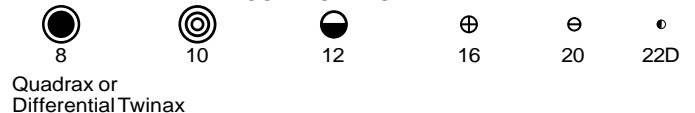
Pin	25-8	25-17	25-20
UDB	8	36 6	10 13 3 4
DBE	8	22D 8	20 16 8 12



Pin	25-26	25-46	25-62
UDB	16 5 4	40 4 2	8 4
DBE	20 12 8	20 16 8	16 8

DBE

CONTACT LEGEND



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shells

- Options Others

How to Order 38999, Series III Circular With Quadrax 100 Ohm Contacts

Amphenol Tri-Start, 38999 Series III* Connectors can be ordered with the following popularly used Quadrax contacts:
 100 ohm quadrax 21-033385-051 socket contacts
 100 ohm quadrax 21-033384-051 pin contacts
 Use the following coded number ordering procedure :

1.	2.	3.	4.	5.	6.
Connector Type	Shell Type	Service Class	Shell Size – Insert Arrangement	Contact Type	Alternate Keying Position
TVP	00	RQW	21-75	P	B

For ordering of connectors with any other quadrax contacts or differential twinax contacts, please consult Amphenol Aerospace for part numbers.

Step 1. Select a Connector Type

TV	Tri-Start Series Connector with metal shells
TVP	Back panel mounted receptacle with metal shells
CTV	Tri-Start Series Connector with composite shells
CTVP	Back panel mounted receptacle with composite shells

Step 2. Select a Shell Style

00	Wall mount receptacle
02	Box mount receptacle available only with the PCB tails and epoxy backfilled (non-removable)
06	Straight plug
07	Jam nut receptacle

Step 3. Select a Service Class with Quadrax

RQF	Electroless nickel plated
RGQF	Electroless nickel plated ground plane
RQW	Olive drab cadmium plate
RGQW	Olive drab cadmium plated ground plane
RQK	Corrosion resistance stainless steel
RGQK	Stainless steel ground plane
QDT	Durmalon plated, Nickel-PTFE alternative to cadmium
GQDT	Groundplane Durmalon
QDZ	Zinc Nickel Black Conductive

Step 4. Select a Shell Size and Insert Arrangement

See insert arrangements available with quadrax contacts on preceding pages. Shell Size and Insert Arrangements are together in one chart. First number represents Shell Size, second number is the Insert Arrangement

Step 5. Select Contact Type

P	Pin contacts
S	Socket contacts

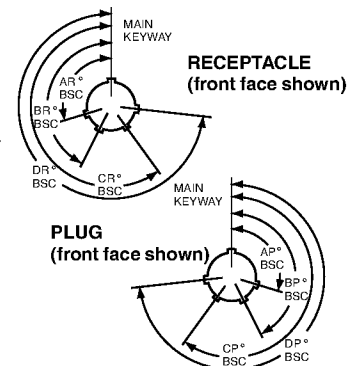
*The incorporation of quadrax or differential twinax contacts requires a modified connector to accommodate keyed contacts.

Step 6. Select an Alternate Keying Position

Locksmith keying—rotation of minor keys. See Series III Alternate Positions below "N" not required for normal position

Tri-Start Alternate Positions

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.



Shell Size	Key & Keyway Arrangement Identification Letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
17 and 19	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
21, 23, and 25	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
25L, 33, and 37	N	80	142	188	293
	A	135	170	188	310
	B	49	169	188	244
	C	66	140	188	257
	D	62	145	188	280
25L, 33, and 37	N	80	142	188	293
	A	135	170	188	310
	B	49	169	188	244
	C	66	140	188	257
	D	62	145	188	280

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

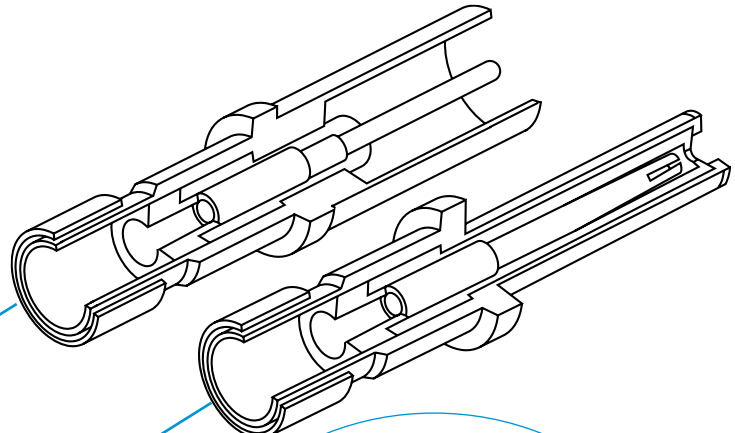
Back-Shells

Options Others

For more information on Tri-Start, MIL-DTL-38999 Series III connectors see the section in this catalog.

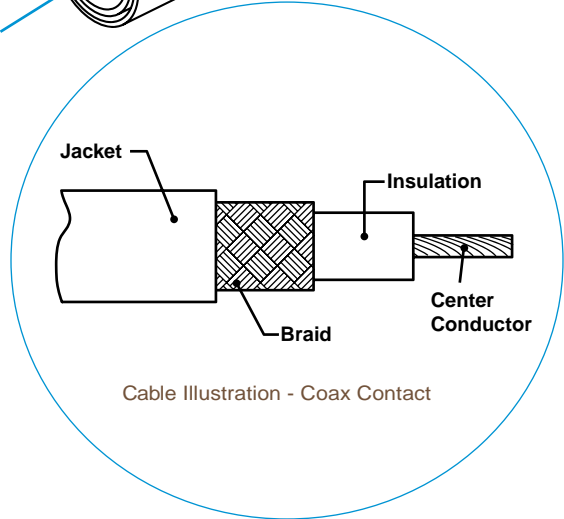
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol® Coaxial Contacts



TYPICAL SUBMINIATURE COAX SOCKET CONTACT has socket outer contact with a pin inner contact

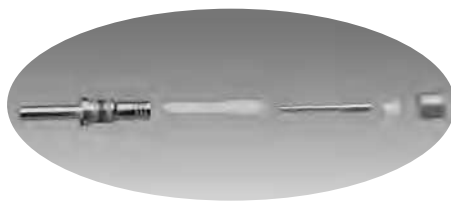
TYPICAL SUBMINIATURE COAX PIN CONTACT has pin outer contact with a socket inner contact



- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables



MIL-DTL-38999 LJT-R, JT-R, TV-R, SJT-R MS Type, Coax Size 12 Socket Assembled Contact



MIL-DTL-38999 LJT-R, JT-R, TV-R, SJT-R MS Type, Coax Size 16 Pin Unassembled Contact



MIL-DTL-38999 LJT-R, JT-R, TV-R, SJT-R MS Type, Coax Size 8 Pin Assembled Contact



MIL-DTL-38999 LJT-R, JT-R, TV-R, SJT-R MS Type, Coax Size 8 Socket Unassembled Contact

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

Coax Contacts are gold plated, crimp termination

Coax Size 12 & 16 Contact Performance:

s 372 M (ZAD) -(ZAD) -(ZAD)

NEBRINIUM

6	2MS	6	2MS	F
6	2MS	6	2MS	F

Coax Size 8 Contact Performance:

s 372 M (ZAD) -(ZAD) -(ZAD)

NEBRINIUM

6	2MS	6	2MS	F
---	-----	---	-----	---

Coaxial Contacts for MIL-DTL-38999 Application Data

JT-R Series, MIL-DTL-38999 Series II, SAE AS39029 (27, 28, 76, 78)

38999

Cable	Cable		Contact	Pin		Installation Tools	
	Pin	Part		Inner Contact	Part	Insertion	Removal
2 5 2 5	21-033122-564 (L-2035-AG)	21-033121-564 (L-2035-AH)	16	-	-	- or -	- or -
(AG) 30-02033 Tensolite ++ A955KK1	21-033122-562† (L-2035-AN)	21-033121-562† (L-2035-AP)		-	-	or Amphenol 11-8674-16 11-8794-16 or MS27495A16 or MS27534-16	or Amphenol 11-8675-16 11-8795-16 or MS27495R16 or MS27534-16
(AG) 2 5 2 5	21-033122-561† (L-2035-AK)	21-033121-561† (L-2035-AL)		-	-		
2 5 2 5	21-033122-563 (L-2035-AD)	21-033121-563 (L-2035-AE)	12	-	-	- or -	- or -
(AG) 2 5 2 5	21-033122-546 (L-2035-F)	21-033121-546 (L-2035-G)		-	-	or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12	or Amphenol 11-8675-12 11-8795-12 or MS27495R12 or MS27534-12
2 5 2 5	21-033122-541 (L-2035-C)	21-033121-541 (L-2035-E)		-	-		
(AG) 2 5 2 5	21-033122-543† (L-2035-M)	21-033121-543† (L-2035-N)	Daniels Positioner K323	-	-	MS3 or 0	
(AG) 2 5 2 5	21-033122-544 (L-2035-R)	21-033121-544 (L-2035-S)		-	-		
(AG) 2 5 2 5	21-033122-545 (L-2035-U)	21-033121-545 (L-2035-V)		-	-		
(AG) 2 5 2 5	21-033122-547† (L-2035-X)	21-033121-547† (L-2035-Y)					

MIL-DTL-38999 CONTACT DATA

4 33 SUPERSEDES-

WAVE

NAME	SIZE	QTY	5MM
*4GB*4	GB	QTY	5MM
Amphe-Lite	GB	QTY	5MM
NAME	GB	QTY	5MM

NO
NO
NO
NO

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1

- Back-Shell
- Options
- Others

38999

LJT-R, MIL-DTL-38999 Series I; TV-R, MIL-DTL-38999 Series III; Amphe-Lite and SJT-R Series, SAE AS39029 (28, 59, 60, 75, 76, 77)

COAX CONTACTS FOR USE IN LJTR, TVR, AMPHE-LITE AND SJTR CONNECTORS

Cable	Pin		Contact	Inner Contact		Installation Tools	
	Pin	Pin		Inner Contact	Inner Contact	Insertion	Removal
2 5 2 5 (AVG 30-02033 ++ ++)	21-033122-564 -	21-033123-564 - *	16	- - - Daniels Positioner K532	-	-	- or -
(AVG 30-02033 ++ ++)	21-033122-562† ,	21-033123-562† , 2 †				-	- or - or Amphenol 11-8674-16 11-8794-16 or MS27495A16 or MS27534-16
(AVG 2 5 2 5 2 5 2 5 2 5 2 5 (AVG 30-02033 ++ ++)	21-033122-561† , + †	21-033123-561† , - †				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033122-563 -	21-033123-563 -				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033122-546 -	21-033123-546 -	12	- - - Daniels Positioner K323	-	-	- or -
(AVG 30-02033 ++ ++)	21-033122-541 -	21-033123-541 -				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033122-543† , - †	21-033123-543† , 0 †				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033122-544† , 2 †	21-033123-544† , 4 †				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033122-545† , 5 †	21-033123-545† , 7 †	-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12			
(AVG 30-02033 ++ ++)	21-033122-585 ,	21-033123-585 ,	-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12			
(AVG 30-02033 ++ ++)	21-033122-547 , 8 †	21-033123-547 , †	8	- - - Daniels Positioner K323	-	-	- or -
(AVG 30-02033 ++ ++)	21-033122-589 , 2 †	21-033123-589 , 4 †				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12
(AVG 30-02033 ++ ++)	21-033102-023† ,	21-033101-023† ,	8	- - - Daniels Positioner K323	-	-	- or -
(AVG 30-02033 ++ ++)	21-033102-024* ,	21-033101-024* ,				-	- or - or Amphenol 11-8674-12 11-8794-12 or MS27495A12 or MS27534-12

4 33 SUPERSEDES-),
2)-0).
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EXPANDER

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix (Pyle)
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

LJT-R, MIL-DTL-38999 Series I; TV-R, MIL-DTL-38999 Series III; Amphe-Lite and SJT-R Series, SAE AS39029 (28, 59, 60, 75, 76, 77), cont.

COAX CONTACTS FOR USE IN LJT-R, TV-R, AMPHE-LITE AND SJT-R CONNECTORS, CONT.							
Cable	OWNER (Termination Instruction Sheet)***		Contact 3E	FINISH		Installation Tools	
	Pin	SIZE		Inner Contact	FINISH	Insertion	Removal
(AG) 8	21-033102-022 (L-1107-B)	21-033101-022 (L-1107-F)	8	-	-	AD	11-9170 or MS
2 5 2 5 246M	21-033102-021 (M39029/60-367 Supersedes MS27536) (L-1107-A)	21-033101-021 (M39029/59-366 Supersedes MS27535) (L-1107-E)		-	-		
2 QUB	21-033102-025 (L-1107-J)	21-033101-025 (L-1107-N)		-	- or		
246M	21-033102-026 (L-1107-M)	21-033101-026 (L-1107-M)		-	-		
2 3 ECS352001 ECS432101	21-033102-027 (L-1286-B)	21-033101-027 (L-1293-B)		-	-		
2 - 2 2 Times LMR-195-UF	21-033102-029 (L-1107-AA)	21-033101-029 (L-1107-Y)†		-	-		
5021D1331-0	21-033102-036 (L-1107-P)	21-033101-036† (L-1107-Q)		-	-		
5M2869-001 ESC432101 BMS13-65	21-033102-037 (L-1107-V)	21-033101-037 (L-1107-W)		-	- or		
5022A1311-0	21-033102-039 (L-1107-AC)	21-033101-036† (L-1107-AB)		-	-		
FA-19X	21-033652-001 (L-2091-A)	21-033653-001 (L-2091-B)	-	-			
EX 136	21-033102-041 (L-1107-AG)	21-033101-041 (L-1107-AF)	-	-			

4 33 SUPERSEDES-),
 2)-0),
 N/A
 SUPERSEDED

sheet if applicable
 EXPANDER
 K1106

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
 Transient

26482
 Matrix 2

83723 III
 Matrix | Pyle

26500
 Pyle

5015
 Crimp Rear Release Matrix

22992
 Class 1

Back-Shell

Options
 Others

38999

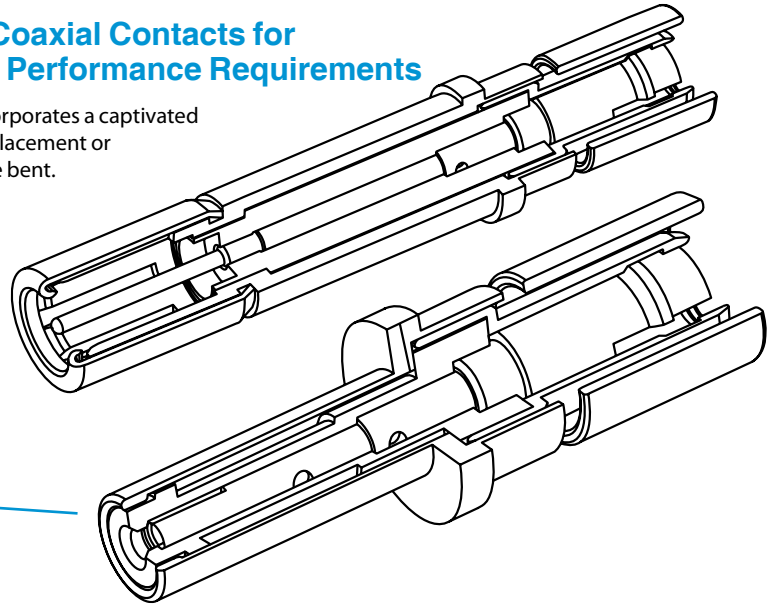
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol® Matched Impedance Size 12 Coaxial Contacts for RF/Microwave, High Frequency and High Performance Requirements

The matched impedance coax contact is available in size 12. It incorporates a captivated inner contact which “snaps into” the outer contact preventing displacement or pull-back of the inner contact in situations where the cable may be bent.

TYPICAL MATCHED IMPEDANCE COAX SOCKET CONTACT
has socket outer contact with a captivated pin inner contact

TYPICAL MATCHED IMPEDANCE COAX PIN CONTACT
has pin outer contact with a captivated socket inner contact



Design features and benefits of the Matched Impedance:

- For use in 90 degree angle or bent cable applications
- Provides 50 ohm matched impedance resulting in low VSWR and low insertion loss
- Frequency range for a mated pair extends to 3 GHz and beyond, higher than other coaxial contacts previously offered.
- Ideally suited for D38999 high performance and MIL-STD-1760 high band coaxial contact requirements

High Performance Size 12 and 8 Coax 50 or 75 Ohm matched

LJT-R, MIL-DTL-38999 Series I, JT-R, MIL-DTL-38999 Series II, and TV-R, MIL-DTL-38999 Series III

Use with Cable	Comment	Pin (Termination Instruction Sheet)**	Socket (Termination Instruction Sheet)**	Contact Size	
RG316, T-Flex-405 Semflex SM405	M39029/102/103 50	21-033651-011 (L-2092-C)	21-033650-011 (L-2092-C)	12	
RG-316, T-Flex-405	JT-R, MIL-DTL-38999 Series II, 50		21-033729-011 (L-2092-P)		
RD316, Filotex, ET124962, M17/152-00001	M39029/102/103 Type 50	21-033651-017 (L-2092-F)	21-033650-017 (L-2092-F)		
JN1088WT	JN1104*50C 50	21-033213-042	21-033214-042 (L-2092-D)		
PAN6422XQ	PAN6841*50C 50	21-033651-012 (L-2092-E)	21-033650-012		
RG178, Gore CXN 3403	M39029/102/103 Type 50	21-033651-018 (L-2092-K)	21-033650-018 (L-2092-K)		
RG178, Gore CXN 3403	JT-R, MIL-DTL-38999 Series II, 50		21-033729-018 (L-2092-K)		
SFT-316-TR	M39029/102/103 Type 50	21-033651-022 (L-2092-N)	21-033650-022 (L-2092-N)		
Semflex SW060	M39029/102/103 Type 50	21-033651-025	21-033650-025		
Semflex SW086 (solid inner conductor)	M39029/102/103 Type 50	21-033651-026	21-033650-026		
PICV76261	75	21-033592-021	21-033591-021		8
Belden 1855A	75	21-033592-031	21-033591-031		8

Matched Impedance Coax Contact Performance: Electrical Specifications:

- Contact impedance = 50 ohms nominal
- Frequency range = 0–3 GHz Operable at higher frequencies depending on cable selection. Consult Amphenol for details.
- Dielectric withstanding voltage (for a mated pair):
At sea level = 1000 VRMS
At 50,000 ft. = 250 VRMS
- Insulation resistance: 5 gigaohms min. @ 25°C
- VSWR: 1.20 + .04F (F in GHz) max. up to 3 GHz
- Insertion Loss: $\sqrt{11}$ fGHz dB max.

Environmental Specifications:

- Thermal limits: –55 ° to 200°C

Mechanical Specifications:

- Mating: slide-on
- Mounting: conforms to M39029/102 & /103 envelope dimensions

* Add P or S for pin or socket

***Termination instructions are packaged with each contact and can be found on-line at: www.amphenol-aerospace.com/serviceinstructions.asp

Typical Contact Installation Instructions



38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

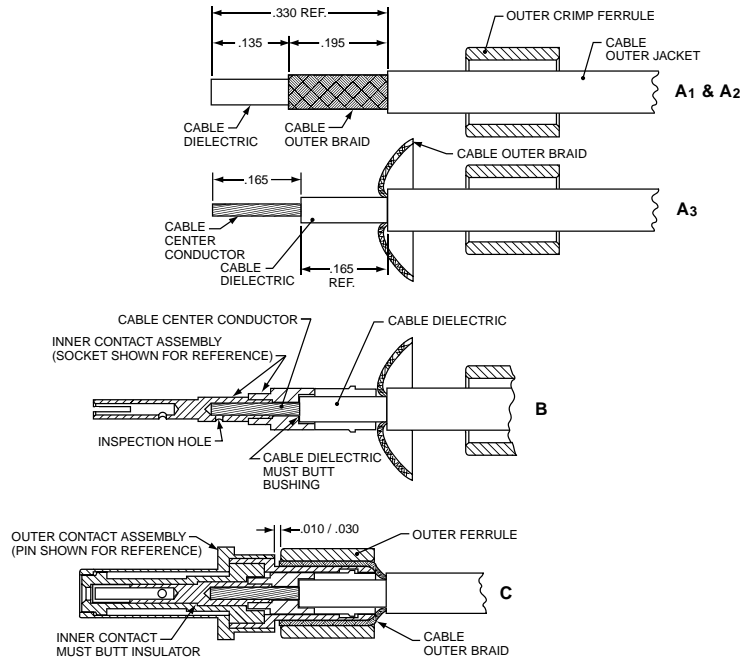
22992
Class 1

Back-
Shells

Options
Others

21-033651-011 (PIN)
21-033650-011 (SOCKET)

21-033651-011 (PIN)
21-033650-011 (SOCKET)



CONTACT INSERTION INTO CONNECTOR

.4 4 2 - 6, 2 - . . 4 2

L-2092-C October 2001

FSCM77820

Amphenol® UNBR	Description	CAGE CODE	Tools					
			Inner Contact			Tool	Positioner	
			Crimp Tool	NE	Positioner ANS			
21-033651-011	ACRYLAC JE OK Pin	- 2 2	- (ANS	5	K1360	-	-	or
		- 2 2	- (ANS	4	K1360			
21-033650-011	ACRYLAC JE OK SE	- 2 2	- (ANS	5	K1360			
		- 2 2	- (ANS	4	K1360			

AMPHENOL AEROSPACE

AMPHENOL AEROSPACE

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol® High Frequency Contacts



Subminiature MIL-DTL-38999 Series III Connector with Size 8 High Frequency Contacts

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others

HIGH FREQUENCY CONTACTS

SPECIFICATIONS

Electrical
(Mated pair size 8 - RG 405 Semi-Rigid Cable)

6372
Ω (Z)
Ω
M2
M2
M2
62-3
62-3
2 62-3
2 62-3
FREQZ

Materials and Finish

-3 D6.3
3 4E
R4-
D6.3
4-
D6.3 4D
04 B4-
4E
4-
4E
O4AS
3 11 .
LAS NBS
over Copper per MIL-C-14550
NBS
3 4E

Environmental

n D
(), 34 EFD ON
(-), 34 EFD ON S
(-), 34 EFD ON XS
(-), 34 EFD ON n D
(-), 34 EFD ESE
(-), 34 EFD ON F

HIGH FREQUENCY COAX CONTACTS FOR USE IN D38999, SERIES III CONNECTORS

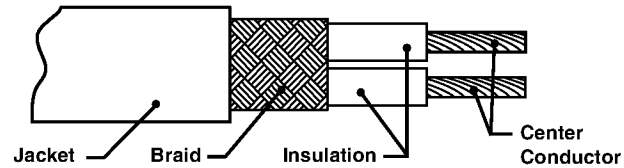
Amphenol Part Number	Interface	Impedance	Material	Pin	AVG	Part Number
()	- :	(:	TFLEX-405	Pin	8	21-033321-007
()	- :	(:	TFLEX-405	Pin	8	21-033321-007
()	- :	(:	2 2	Pin	8	21-033321-009
()	- :	(:	TFLEX-402	Pin	8	21-033321-010
()	BMA	(:	TFLEX-405	Pin	8	21-033321-007
()	BMA	(:	TFLEX-402	Pin	8	21-033321-010
()	- : 75 Ohm	(:	LMR-240-75	Pin	8	21-033321-008
()	SMPM	(:	TFLEX-405	Pin	12	.
()	SMPS	(:	A Cable	Pin	16	.
()	- :	(:	2	Pin	8	21-033321-007

Twinax Contacts for MIL-DTL-38999

General Description, Application Data - Size 10 & 12

Amphenol® Twinax Contacts -Were designed for use with twinax cable in Data Bus systems. Twinax contacts provide the following benefits:

- Protection from magnetic interference
- Protection from electrostatic interference including nuclear electromagnetic pulse
- Meets parameters defined by MIL-STD-1553B
- Maintains shield integrity through a multi-pin circular connector and does not require contact polarization within the insert



Cable Illustration - Twinax Contact

SIZE 10 & 12 CONCENTRIC TWINAX CONTACTS

The size 12 concentric twinax contact interface was developed for JN1104 EuroFighter contacts, and can be used in any size 12 cavity M38999 I, II or III or SJT connector.

Features:

- Operating temperature -55°C to 175°C
- Pins are scoop-proof
- Meets performance levels of M38999 connector
- 4 components, gold plated crimp termination
- For use with a variety of cables (See chart below)



Concentric Twinax Contacts Size 12

TYPICAL ELECTRICAL PERFORMANCE

Size 10 & 12 Concentric Twinax Contacts

Voltage Rating: 500 Vrms max. @ sea level

Contact Resistance:

Center @ 1 Amp, 55 millivolts max. voltage drop @ 25°C

Intermediate @ 1 Amp, 55 millivolts max. voltage drop @ 25°C

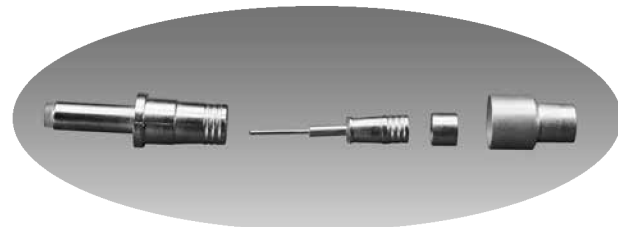
Outer @ 12 Amps, 85 millivolts max. voltage drop @ 25°C

Operating Frequency: 0-30 MHz

Dielectric Withstanding Voltage:

Center to Intermediate 800 VAC Rms @ Sea Level

Intermediate to Outer 500 VAC Rms @ Sea Level



Unassembled Components of Size 12 Concentric Twinax Contact

SIZE 10 & 12 CONCENTRIC TWINAX CONTACTS FOR USE IN D38999 CONNECTORS					
For use with Cable	Concentric Twinaxial Contact Part Number (Termination Instruction Sheet)**		Contact Size	Comments	Connector Series
	Pin	Socket			
M17/176-00002, ST5M1212-002, TWC-78-1	21-033909-025 (L-2092-G)	21-033908-025 (L-2092-G)	12	JN1104 Interface	D38999 Series I, III
0024A0024, Fileca F2709-13-CA	21-033909-028 (L-2092-G)	21-033908-028 (L-2092-G)			
EPD32263A,10612, GSC-12-2548-00	21-033909-029 (L-2092-H)	21-033908-029 (L-2092-H)			
ASNE0849, 5PTM1T04-1	21-033909-081 (L-2092-AB)	21-033908-081 (L-2092-AB)			
VG95218T023D002	21-033909-091 (L-2092-AC)	21-033908-091 (L-2092-AC)			
VG95218T023D002, 55PC1221-24	21-033909-101 (L-2092-AC)	21-033908-101 (L-2092-AC)		Same as -91 except new ferrule with wire support	
M17/176-00002, GSC-12-2549-00		21-033640-025 (L-2092-W)	12	JN1104 Interface	D38999 Series II
0024A0024		21-033640-028 (L-2092-V)			
5M2022-003	21-033844-001 (L-1255-A)	21-033843-001 (L-1255-B)	10	Supplied with Thermal fit sleeve	D38999 Series I, III

**Termination instructions are packaged with each contact and can be found on-line at: www.amphenol-aerospace.com/serviceinstructions.asp

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

- 38999
- III
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

s V...
 (NUMBER) 9
 s 2). 2). AD
 ...

SIZE 8 CONCENTRIC TWINAX CONTACTS

4...
 34
 s ... 4,
 Series III connectors
 s-),
 ... 34
 ...

TYPICAL ELECTRICAL PERFORMANCE

Size 8 Concentric Twinax Contacts

...
 ...
 ...
 ...
 ...
 ... 6 2MS ...
 ... 6 2MS ...

SHORT PROFILE TWINAX CONTACT OPTION

...
 ...



MIL-DTL-38999 Series III Connector with Twinax Contacts and Standard Contacts



Concentric Twinax Contacts Size 8



Short Profile Twinax vs Standard Length Twinax Contact

SIZE 8 CONCENTRIC TWINAX CONTACTS FOR USE IN D38999 CONNECTORS

Cable	TERMINATION (Termination Instruction Sheet)**		Comments	Connector Series
	Pin	Part Number		
-	21-033190-625 (L-1253-AG)	21-033191-628 (L-1253-AG)	3 NPEQD	D38999
5PTM1T04-2	21-033190-529 (L-1253-A)	21-033191-530 (L-1253-B)	3 NPEQD	
-	T3-46T08-LD (PN-430)	T3-47T08-LD (PN-430)	OE	
-	21-033190-000 (L-1253-A)	21-033191-000 (L-1253-B)		
-	21-033190-001 (L-1253-A)	21-033191-001 (L-1253-B)		
21-033190-026 (L-1253-AA)	21-033190-026 (L-1253-AA)	21-033191-026†		
21-033190-022 (L-1253-C)	21-033190-022 (L-1253-C)	21-033191-022 (L-1253-D)		
21-033190-027 (L-1253-K)	21-033190-027 (L-1253-K)	21-033191-027 (L-1253-L)		
21-033190-029 (L-1253-K)	21-033190-029 (L-1253-K)	21-033191-029 (L-1253-L)		
21-033190-030 (L-1253-K)	21-033190-030 (L-1253-K)	21-033191-030 (L-1253-L)		
21-033190-040 (L-1253-S)	21-033190-040 (L-1253-S)	21-033191-040 (L-1253-T)		
21-033190-081 (L-1253-W)†	21-033190-081 (L-1253-W)†	21-033191-081 (L-1253-Y)†		
21-033190-261 (L-1253-AA)	21-033190-261 (L-1253-AA)	21-033191-261†		
21-033190-262 (L-1253-AA)	21-033190-262 (L-1253-AA)	21-033190-262†		
T3-46TB08-LD (PN-494)	T3-46TB08-LD (PN-494)	T3-47TB08-LD (PN-494)		
T3-46TC08-LD (PN-537)	T3-46TC08-LD (PN-537)	T3-47TC08-LD (PN-537)		
T3-46TE08-LD (PN-1001)	T3-46TE08-LD (PN-1001)	T3-47TE08-LD (PN-1001)		
T3-46TD08-LD (PN-1000)	T3-46TD08-LD (PN-1000)	T3-47TD08-LD (PN-1000)		
21-033910-015† (PN-1005)	21-033910-015† (PN-1005)	21-033922-015 (PN-1005)		
21-033617-001 (REF PN-100)	21-033617-001 (REF PN-100)	21-033922-015 (PN-1005)		
T3-46TF08-LD (PN-1002)	T3-46TF08-LD (PN-1002)	T3-47TF08-LD (PN-1002)		
-	-	P-209546-27†		
21-033190-070 (L-1253-U)	21-033190-070 (L-1253-U)	21-033191-070 (L-1253-V)		
21-033190-071 (L-1253-U)	21-033190-071 (L-1253-U)	21-033191-071 (L-1253-V)		
21-033190-072 (L-1253-U)	21-033190-072 (L-1253-U)	21-033191-072 (L-1253-V)		
21-033190-090†	21-033190-090†	21-033191-090 (L-1253-AD)		
21-033190-091†	21-033190-091†	21-033191-091 (L-1253-AD)		
21-033190-092†	21-033190-092†	21-033191-092 (L-1253-AD)		
21-033190-625 (L-1253-AG)	21-033190-625 (L-1253-AG)	21-033191-628 (L-1253-AG)		

38999

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- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

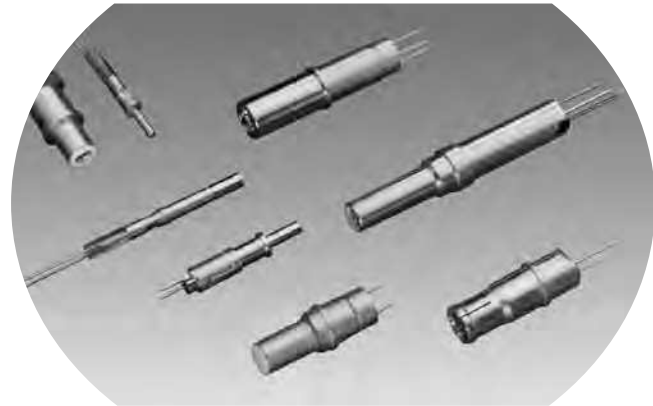
5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

Amphenol® Printed Circuit Tail Contacts



PC Tail Coax and Twinax Contacts for Attachment to Printed Circuit Boards

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

TYPICAL ELECTRICAL PERFORMANCE

Size 8, 12 & 16 PC Tail Coax Contacts

Resistance	MPIN/M
Resistance	MPIN/M
Resistance	-(Z)
Resistance	6 2MS 3EAFZ
Resistance	NEIGHNUM

TYPICAL ELECTRICAL PERFORMANCE

Size 8, 10 & 12 PC Tail Twinax Contacts

Resistance	MPIN/M
Resistance	MPIN/M
Resistance	MPIN/M
Resistance	-(Z)
Resistance	6 2MS 3EAFZ
Resistance	6 2MS 3EAFZ
Resistance	NEIGHNUM

TYPICAL ELECTRICAL PERFORMANCE

Size 8 PC Tail Triax Contacts

Resistance	MPIN/M
Resistance	MPIN/M
Resistance	MPIN/M
Resistance	-(Z)
Resistance	6 2MS 3EAFZ
Resistance	6 2MS 3EAFZ
Resistance	NEIGHNUM



Size 8, PC Tail Twinax Socket Contact for use in D38999 Connectors



D38999 Connector with PC Tail Coax Contacts, Sealing Plugs in unused contact cavities and PC Tail Alignment Disc



38999

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- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shells

- Options Others

PC TAIL COAX, TWINAX, AND TRIAX CONTACTS FOR USE IN D38999 SERIES I & III CONNECTORS					
SE	COAX	OTHER	OTHER	Tails*	Comments
8 Pin	21-033733-007			PCB 2 tails	
8 Pin	21-033733-002			PCB 2 tails	
8 Pin	21-033733-004			PCB 2 tails	
8 Pin	21-033733-005			0	
8 Pin	21-033733-009			PCB 2 tails	
8 Pin	21-033733-008			PCB 2 tails	
8 Pin	21-033426-001			PCB 2 tails	
8 Pin		21-033967-115		PCB 3 tails	
8 Pin		21-033967-125		PCB 3 tails	
8 Pin		21-033967-015		PCB 3 tails	
8 Pin		21-033967-045		PCB 3 tails	
8 Pin		21-033967-055		PCB 3 tails	
8 Pin		21-033967-065		PCB 3 tails	
8 Pin		21-033967-085		PCB 3 tails	
8 Pin		21-033967-095		PCB 3 tails	
8 Pin		P-209550†		PCB 3 tails	
8 Pin		P-209532-1		PCB 9 tails	
8 Pin		P-209532-2		PCB 9 tails	
8 Pin		21-033921-015		PCB 3 tails	
8 Pin		21-033921-045		PCB 3 tails	
8 Pin		21-033921-035		PCB 3 tails	
8 Pin		21-033921-065		PCB 3 tails	
8 Pin		21-033921-075		PCB 3 tails	
8 Pin		21-033921-115†		PCB 3 tails	
8 Pin		21-033479-001		PCB 3 tails	3
8 Pin		21-033479-021		PCB 3 tails	3
8 Pin		21-033921-105†		PCB 3 tails	SMA
8 Pin		DB-109002		PCB 2 tails	
8 Pin		21-033919-015		PCB 2 tails	
8 Pin		21-033919-025		PCB 2 tails	
8 Pin			21-033828-001	PCB 3 tails	
8 Pin			21-033828-021	PCB 3 tails	
8 Pin			21-033828-041	PCB 3 tails	
8 Pin			21-033840-001	PCB 3 tails	
8 Pin			21-033840-021	PCB 2 tails	
8 Pin			21-033841-001	PCB 2 tails	
10 Pin		21-033844-002†		PCB 2 tails	



38999

- III
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- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

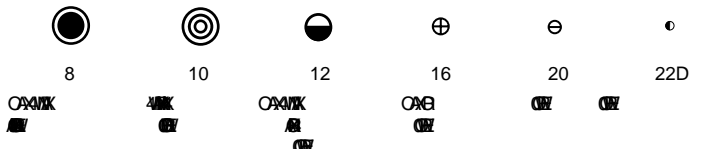
PC TAIL COAX, TWINAX, AND TRIAX CONTACTS FOR USE IN D38999 SERIES I & III CONNECTORS					
Symbol	Coax Contact Part Number	Twinax Contact Part Number	Triax Contact Part Number	Tails*	Comments
	21-033686-008			PCB 2 tails	
	21-033686-009			PCB 2 tails	
	21-033686-005			PCB 2 tails	
	21-033686-010			PCB 2 tails	
	21-033686-013			PCB 2 tails	
	21-033687-006			PCB 2 tails	
	21-033687-007			PCB 2 tails	
	21-033686-016†			PCB 2 tails	
	21-033614-001			PCB 2 tails	
	21-033614-021			PCB 2 tails	
	21-033614-041			PCB 2 tails	
	21-033611-003			PCB 2 tails	
	21-033440-001			PCB 3 tails	
	21-033430-001			PCB 2 tails	
	21-033430-021			PCB 2 tails	M38999 Series II
	21-033430-041				M38999 Series II
12 Pin		21-033633-001†**		PCB 4 tails	
12 Pin		21-033633-002**		PCB 4 tails	
12 Pin		21-033633-006**		PCB 4 tails	
12 Pin		21-033633-007**		PCB 4 tails	
		21-033393-006**		PCB 4 tails	
		21-033393-005**		PCB 4 tails	
		21-033433-001**		PCB 4 tails	
16 Pin	21-033856-015			PCB 2 tails	
16 Pin	21-033856-025			0	
16 Pin	21-033856-065			PCB 2 tails	
16 Pin	21-033634-015			PCB 1 tail	
16 Pin	21-033634-035			PCB 1 tail	
16 Pin	21-033634-045			PCB 1 tail	
16 Pin	21-033386-001			PCB 2 tails	
	21-033857-001			PCB 2 tails	
	21-033857-008			PCB 2 tails	
	21-033857-007			PCB 2 tails	
	21-033610-001			PCB 2 tails	
	21-033610-002			PCB 2 tails	
	21-033441-001			PCB 2 tails	
	21-033606-001			PCB 2 tails	
	21-033606-021†			PCB 2 tails	M38999 Series II
	21-033606-031†			PCB 2 tails	
	21-033610-003			PCB 2 tails	
	21-033857-003			PCB 2 tails	

38999

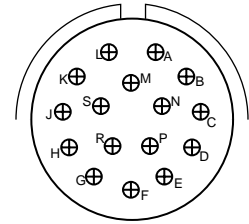
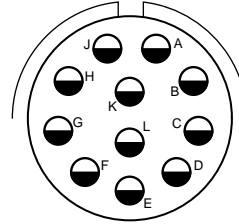
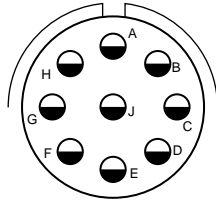
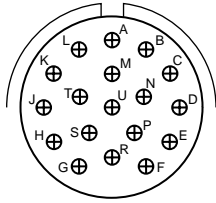
Front face of pin inserts illustrated

III	Front face of pin inserts illustrated																			
HD	9-5		10-2		11-2		12-3		13-3		12-4		13-4		14-4		15-4			
Dualok	TV		SJT		LJT, TV		JT		LJT		JT, SJT		LJT, TV		JT		LJT			
II	II		I		II		I		I		I		I		I		I			
I	1		2		3		4		4		4		4		4		4			
SJT	16		16		16		16		16		16		16		12		12			
Accessories	1		2		3		4		4		4		4		4		4			
Aquacon	16		16		16		16		16		16		16		12		12			
Herm/Seal	16		16		16		16		16		16		16		12		12			
PCB	16		16		16		16		16		16		16		12		12			
HIGH SPEED	14-5		15-5		14-15		15-15		14-68		15-68		14-97		15-97		16-6		17-6	
	JT, SJT		LJT, TV		JT, SJT		LJT, TV		JT		LJT		JT, SJT		LJT, TV		JT, SJT		LJT, TV	
	II		I		I		I		I		I		I		I		I		I	
Fiber Optics	5		14		1		8		8		4		6		6		6		6	
	16		20		16		16		16		20		16		12		12		12	
	16		20		16		16		16		20		16		12		12		12	
Contacts Connectors Cables	16-8		17-8		16-13		17-13		16-99		17-99		17-2		17-22		17-22		17-22	
	JT, SJT		LJT, TV		JT, SJT		LJT		JT, SJT		LJT, TV		LJT		TV		LJT		TV	
	II		I		I		I		I		I		M		OK		OK		OK	
EMI Filter Transient	8		13		21		2		38		1		2		2		2		2	
	16		16		20		16		22D		8		12		8		12		8	
	16		16		20		16		22D		8		12		8		12		8	
26482 Matrix 2	17-25		18-11		19-11		18-28		19-28		18-30		19-30		19-31		19-31		19-31	
	LJT		JT, SJT		LJT, TV		JT		LJT		JT		LJT		TV		TV		TV	
	M		II		I		I		I		I		I		M		M		M	
83723 III Matrix | Pyle	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	
26500 Pyle	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	
5015 Crimp Rear Release Matrix	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	
22992 Class I	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	
Back-Shells	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	
Options Others	22		11		26		2		29		1		2		1		12		12	
	22D		16		20		16		20		16		8		12		22D		22D	
	22D		16		20		16		20		16		8		12		22D		22D	

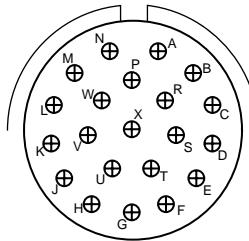
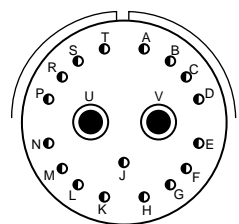
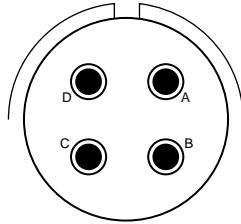
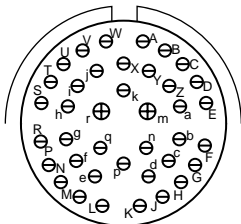
CONTACT LEGEND



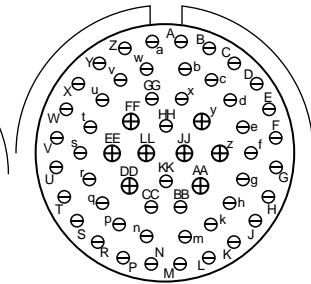
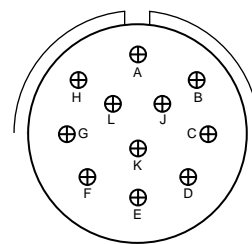
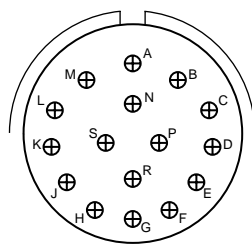
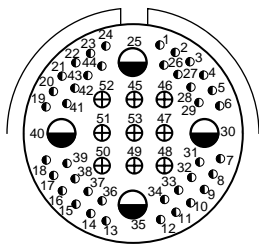
Front face of pin inserts illustrated



FRONT	18-68	19-68	18-96	20-11	21-11	20-16	21-16
Connector Series	JT	LJT	JT	JT, SJT	LJT, TV	JT, SJT	LJT, TV
8		I	I		I		II
10		18	9		11		16
12		16	12		12		16

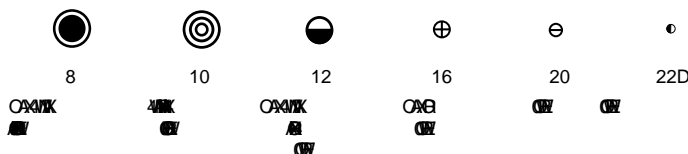


FRONT	20-39	21-39	20-75	21-75	20-79	21-79	22-21	23-21
Connector Series	JT, SJT	LJT, TV	SJT	LJT, TV	SJT	LJT	JT, SJT	LJT, TV
8		I		M		II		II
10	37	2	4		17			21
12	20	16	8		22D			16



FRONT	23-54	23-97	23-99	24-4	25-4
Connector Series	TV	LJT	LJT	JT, SJT	LJT, TV
8		II	II		I
10	40	16	11	48	8
12	22D	16	16	20	16

CONTACT LEGEND



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

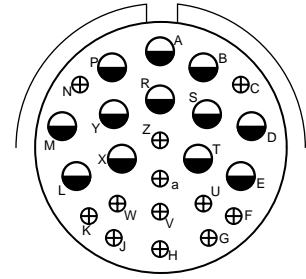
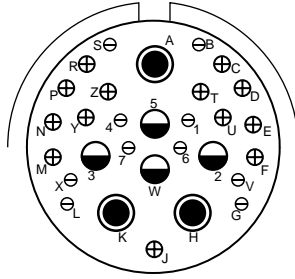
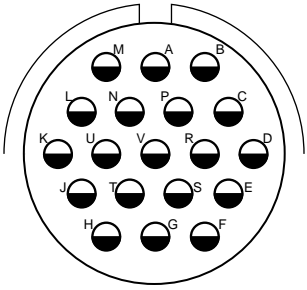
5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

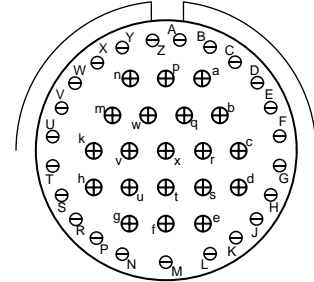
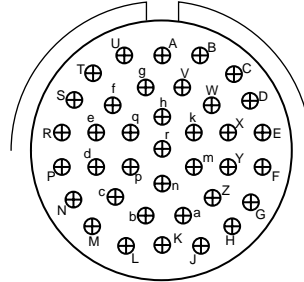
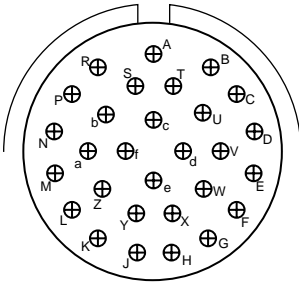
Options
Others

38999

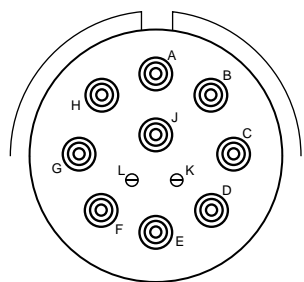
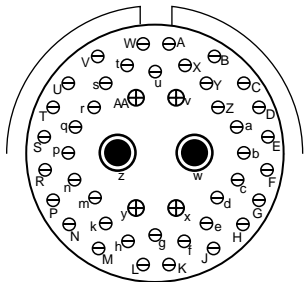


Part	24-19	25-19	24-20	25-20*	24-24	25-24
Connector Series	JT, SJT	LJT, TV	SJT	LJT, TV	JT, SJT	LJT, TV
Series	I		N		I	
UOM	19		10	13	3	4
QTY	12		20	16	8	12

CONTACT HEAD



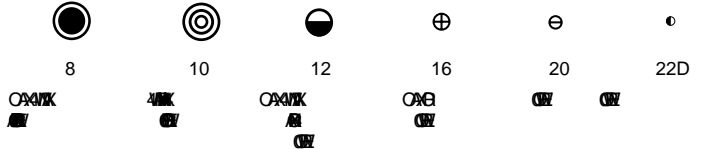
Part	24-29	25-29	24-37	25-37	24-43	25-43
Connector Series	JT, SJT	LJT, TV	JT, SJT	LJT, TV	JT, SJT	LJT, TV
Series	I		I		I	
UOM	29		37		23	20
QTY	16		16		20	16



Part	24-46	25-46	25-11*
Connector Series	SJT	LJT, TV	LJT, TV
Series	I		N
UOM	40	4	2
QTY	20	16	8

USE IN APPLICATIONS WITH 3 SER

CONTACT LEGEND



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



NPK(ND), 4, (ND)
 UY-), 4, (ND)
 (ND)
 (ND) AD (ND)
 (ND)
 MS(ND)
 (ND)
 6 2-(ND) 4, (ND)
 (ND)
 (ND) ABS

Standard and Heavy Duty Circular offer these features for contact termination flexibility:

- (ND)
- (ND) F(ND)
- (ND)
- (ND)
- (ND)
- (ND)
- (ND)
- (ND)

Amphenol® MS/Standard Circular MIL-DTL-5015* Type Connector Family:

See MS/Standard catalog 12-020 for complete information on these styles

MS-A, MS-C, MS-E, MS-F, MS-R

(ND) 4,
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)
 (ND)

GENERAL ORDERING INFORMATION

NPK(ND), 4, (ND), 4, (ND)

(7 4 2 2

(ND)

(ND)

(ND)

BEV(ND)

(ND)

STANDARD), 4, (ND) (ND)

ACD -), 4, 17, (ND)

ACD 17(ND)

(ND)

(ND)

FRONT(ND)

- NEED. (ND) WITH(ND)
- NEED. (ND) (ND)
- NEED. (ND) (ND)
- NEED. (ND) (ND)
- NEED. (ND) (ND)



MS/Standard MIL-DTL-5015 Type Connectors



Heavy Duty QWLD, MIL-DTL-22992 Connectors

Amphenol® Heavy Duty Circular MIL-DTL-22992 Connector Family:

QWLD

(ND)
 (ND), 4, (ND)

See Catalog 12-052 for complete information on these styles.

QWL

s (ND)

(ND)

See Catalog 12-053 for complete information on these styles.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Camp Rear
Release
Matrix

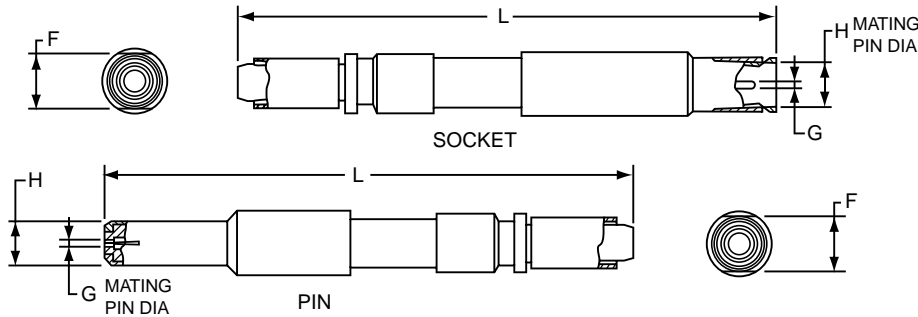
22992
Class 1

Back-
Shells

Options
Others

. 4
 -),4, SUPERSEDES-),
 -),4, SUPERSEDES-),

Coaxial Contacts for MIL-DTL-5015, Heavy Duty MIL-DTL-22992 Application Data



- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

COAX CONTACTS For use in MS/Standard MIL-DTL-5015 Type and Heavy Duty MIL-DTL-22992 Type Connectors

Cable	Cable		Part	Finish on Parts	Dimensional Data					Pin			Retainer UT Wrench	
	Pin	Part			A	(A)	F Across Flats	Pin	Pin	Pin	Pin	Pin		
2 5	21-033014-001	21-033013-001	8	5									11-8676-2	
	21-033034-002	21-033033-002	8	1										
	21-033048-002	21-033047-002	8	†										
	21-033016-005	21-033015-005	8	3										
	21-033130-002()	21-033129-002()	8	***										
2 5	21-033014-005	21-033013-005	8	5									11-8676-3	
	21-033016-002	21-033015-002	8	3										
	21-033034-005	21-033033-005†	8	1										
	21-033130-005()	21-033129-005()	8	***										
	21-033064-021()	21-033063-021()	8	***										
2 5	21-033060-010()	21-033059-010()	4	***									11-8676-4	
	21-033014-003	21-033013-003	8	5									11-8676-2	
	21-033016-001	21-033015-001	8	3										
	21-033034-003	21-033033-003	8	1										
	21-033130-003(†)	21-033129-003(†)	8	***										
21-033064-020(†)	21-033063-020(†)	8	***											
2 5	21-033014-021	21-033013-021	12	5									11-8676-1	
	21-033034-001	21-033033-001	12	1										
	21-033048-001	21-033047-001	12	***										
	21-033130-001(†)	21-033129-001(†)	12	***										
	21-033014-022†	21-033013-022†	12	5										
2 5	21-033014-006	21-033013-006	8	5									11-8676-2	
	21-033034-006†	21-033033-006†	8	1										
	21-033048-003	21-033047-003	8	***										
	21-033130-006(†)	21-033129-006()	8	***										
	21-033060-011()	21-033059-011()	4	***										
2 5	21-033014-008	21-033013-008	8	5									11-8676-2	
	21-033034-008	21-033033-008	8	1										
	21-033130-008(†)	21-033129-008(†)	8	***										
	21-033014-004	21-033013-004	8	5										11-8676-2
	21-033034-004	21-033033-004	8	1										
21-033130-004()	21-033129-004()	8	***											
21-033060-102()	21-033059-012()	4	***											
21-033060-102()	21-033059-012()	4	***									11-8676-4		

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shell

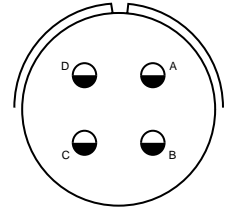
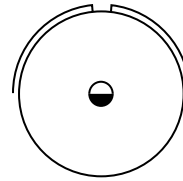
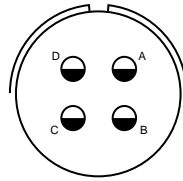
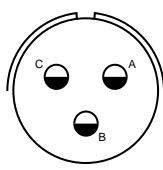
- Options Others

TERMINATION INSTRUCTIONS
SEE L-650 TERMINATION INSTRUCTION SHEET FOR ALL CONTACTS LISTED BELOW**

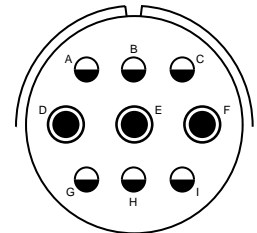
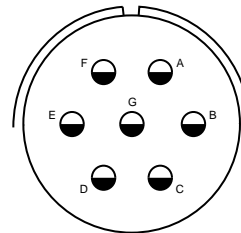
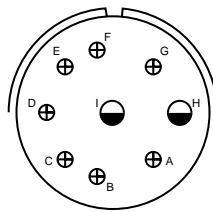
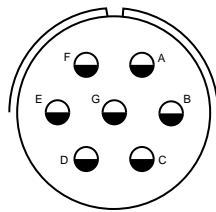
2)-0).
AND SAFETY SUPPLIED WITH COG
WWW.AMPHENOL.COM

38999

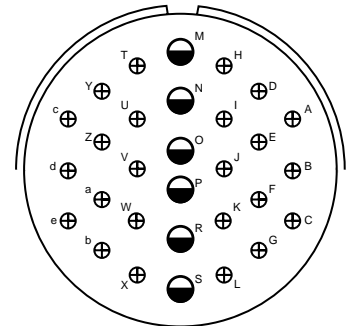
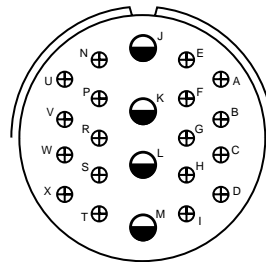
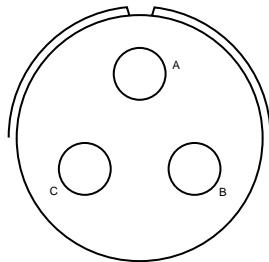
Front face of pin inserts illustrated



	16-10	18-10	18-16	20-4
Connector Series	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL
	A	A	C	D
	3	4	1	4
	12	12	12	12



	20-15	20-16	24-2	24-11
Connector Series	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL
	A	A	D	A
	7	2 7	7	3 6
	12	12 16	12	8 12



	28-6	28-11	32-8
Connector Series	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL	MS/Standard, QWLD, QWL
	D	A	A
	3	4 18	6 24
	4	12 16	12 16

Options
Others
THE -, 4, AND -, 4, 3

CONTACT LEGEND



Amphenol provides an impressive array of Rectangular Interconnection products to meet the needs of high density systems such as opto-electrical backplanes used in many applications that include: medical equipment, IC chip testers, telecommunications, military and commercial aviation, military ground vehicles, GPS systems, space and industrial applications.

ARINC 600 and R27 Rack and Panel connectors can incorporate:

- Size 8 Coax contacts
- Size 1 and size 5 Coax (consult Amphenol Canada)
- Size 12 Twinax contacts
- Size 8 Quadrax contacts
- Size 8 Differential Twinax contacts

ARINC 600 Rack and Panel Rectangular Connectors

See Amphenol Canada Publication SL-379, ARINC 600 Rack and Panel Connectors for complete information.



ARINC 600 Rack and Panel Connectors are high density connectors that can incorporate high speed shielded contacts

R27 Rack and Panel Rectangular Connectors

See Amphenol Canada Publication for R27 Series Connectors for complete information.



R27 Series Rack and Panel Connector can incorporate high speed shielded contacts



Coax Contact , Size 8 for use in ARINC Rack and Panel Connectors



Quadrax Contact , Size 8 for use in ARINC Rack and Panel Connectors

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

ARINC 600 & R27 Rack and Panel Connectors

QUADRAX CONTACTS FOR USE IN ARINC 600 & R27 CONNECTORS						
Cable	(Termination Instruction Sheet)**		HVS	Contact	FIND	
	Pin	SER			Inner Contact	SER
Tensolite NF24Q100-01, 24443/9P025X-4(LD), S280W502-4, 24443/03130X-4(LD), PIC E51424	21-033382-021 (L-2119-AH)	21-033383-021 (L-2119-AH)	100	8	M22520/2-01 with Positioner Daniels K709 (M22520/2-37)	M22520/5-01 with Die Set M22520/5-45 (Location B)
Draka Fileca F-4703-3	21-033382-031 (L-2119-I)	21-033383-031 (L-2119-I)	100			
Draka Fileca F-4704-5, NF22Q100	21-033382-101 (L-2119-AS)†	21-033383-101 (L-2119-AS)†	100			
JSFY02-1	21-033382-071 †	21-033383-071 †	110			
Tensolite 26473/02006X-4(LD), Gore RCN8328	21-033382-061 (L-2119-L)	21-033383-061 (L-2119-L)	150		M22520/2-01 with Positioner Daniels K709 (M22520/2-37)	M22520/5-01 with Die Set M22520/5-45 (Location A)

DIFFERENTIAL TWINAX CONTACTS FOR USE IN ARINC 600 & R27 CONNECTORS						
Cable	(Termination Instruction Sheet)**		HVS	Contact	FIND	
	Pin	SER			Inner Contact	SER
ABS0386WF24	21-033378-021 (L-2119-G)	21-033379-021 (L-2119-G)	100	8	M22520/2-01 with Positioner Daniels K709 (M22520/2-37)	M22520/5-01 with Die Set M22520/5-45 (Location A & B)
ASNE0272TK22	21-033378-031 (L-2119-G)	21-033379-031 (L-2119-G)	100			
ASNE0272TK24	21-033378-041 (L-2119-G)	21-033379-041 (L-2119-G)	100			
0 8 ,	21-033378-051 †	21-033379-051 †	100			
4 - (	21-033378-061 (L-2119-AU)	21-033379-061 (L-2119-AU)	77			
	21-033378-071 †	21-033379-071 †	110			

COAX CONTACTS FOR USE IN ARINC 600 & R27 CONNECTORS					
Cable	(Termination Instruction Sheet)**		Contact	FIND	
	Pin	SER		Inner Contact	SER
RG-179, RG316	21-033676-001 (L-2090-B)	21-033675-001 (L-2090-A)	8	M22520/2-01 with Positioner K1275	M22520/10-01 with Die Set M22520/10-05 (A)
RG-179, RG316	21-033476-001	21-033475-001			
5M2869-001	21-033676-002 †	21-033675-002 †			

PCB QUADRAX CONTACTS FOR USE IN ARINC 600 & R27 CONNECTORS					
PCB Contacts	(Termination Instruction Sheet)**		HVS	Contact	
	Pin	SER			
PCB (.346 Length)		21-033397-171	100	8	
PCB (.473 Length)	21-033398-261				

TWINAX CONTACTS FOR USE IN ARINC 600 & R27 CONNECTORS					
Cable	(Termination Instruction Sheet)**		Contact	FIND	
	Pin	SER		Inner Contact	SER
EPD 32263, 10612, GSC-12-2548-00	21-033631-004† (L-2092-U)†	21-033632-003 (L-2092-J)	12	MH992 with Positioner K1365	GS200-1 with Positioner GP959

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others



Date _____

Amphenol Salesperson _____

The following check list is provided to help you specify a high frequency contact and cable system, and it will help our design team to meet your requirements. You may copy this page and fax it to Amphenol Aerospace 607-563-5157, attention Contact Design. Or call 607-563-5011 or 800-678-0141 for assistance.

CUSTOMER INFORMATION

SUBNAME _____

NAME _____

EM _____

Forecast _____

CABLE INFORMATION

NUMBER _____

NUMBER _____

TYPE *42

AE WEK

NUMBER _____

NUMBER _____

TYPE _____

7 TYPE _____

TYPE _____

Material of Inner Wires _____

TYPE _____

TYPE _____

TYPE _____

TYPE _____ RD 7 _____

TYPE _____

TYPE _____

TYPE _____

TYPE _____ RD 7 _____

TYPE _____

TYPE _____

TYPE _____

PERFORMANCE INFORMATION

Electrical Protocol _____

6372 ~~ROUND~~ _____ RSM _____ IB

TYPE _____ TYPE _____ Insertion Loss _____

TYPE 6 2-3

CONTACT Amp ~~CR~~ _____ Amp

TYPE _____ TYPE _____

CONNECTOR INFORMATION

TYPE ,*42 *42

Other _____

TYPE _____

TYPE _____

TYPE _____

CONTACT INFORMATION

TYPE WEK AE

TYPE WEK

3E 12 16

TYPE No

50Ω 75Ω 100Ω 150Ω Other _____

TYPE _____

TYPE _____

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

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Back-Shells

Options Others

Amphenol EMI/EMP Filter Protection



Planar Array Assembly

Capacitor and MOV Planars

Diode Contacts

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EMI/EMP Filter Protection Connectors - For Protection of Sensitive Circuits

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s 399	
s 400	



EMI/EMP Filter Connector Typical Markets:

- s Military & Commercial Aviation s 56
- s Missiles & Ordnance s)32
- s Space & Satellites



Overview

Amphenol® EMI/EMP Protection Connectors offer the




Virtually all major MIL-Spec circulars can be incorporated with filter devices:


- s-), 4, s-), 4,
- s-), 4, s-), 4,
- s-), 4, s-), 4,




Mil-Spec




FVT
-), 4,
OAGE




FLJT
-), 4,
OAGE




Filter AN Connector
MIL-DTL-5015
Type Connectors
OAGE




FJT
-), 4,
OAGE



FCTV with Stand-off Flange
Filtered Tri-Start
shells for attachment to



FPT
Miniature MIL-DTL-26482
OAGE

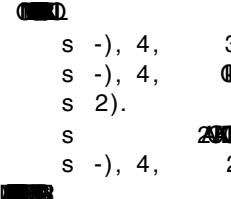


High Density HD38999
OAGE



2M
OAGE

Rectangular



s -), 4, 3B
s -), 4, 3B
s 2).
s 200N
s -), 4, 200N
EP

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Advantages

Advantages of Filter Connectors:

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

Filtering Solutions

EMI Filter Transient

can select your options for your particular interference
 (5 - [Redacted])
 [Redacted]
 [Redacted]

26482 Matrix 2

EMI Filter connectors are intended for use in temperatures
 [Redacted]

83723 III Matrix | Pyle

26500 Pyle

formance is stated in reference to a 50 ohm impedance
 [Redacted]

5015 Crimp Rear Release Matrix

22992 Class 1

It is suggested that the user(s) analyze their system requirements for EMI protection in the following areas:

- [Redacted]
- [Redacted]
- Any special capacitance limitations

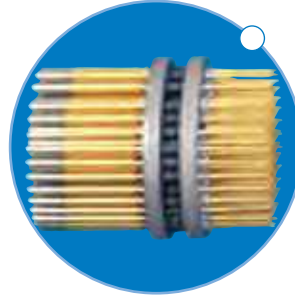
Options Others

Options

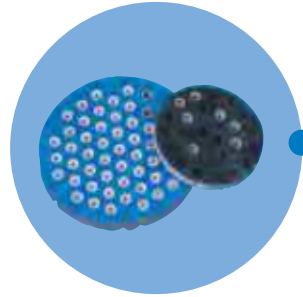
Amphenol offers filter connectors, which can include:

- s - 0 [Redacted]
- s [Redacted]
- [Redacted]
- [Redacted]
- s ESD protection
- [Redacted]
- [Redacted]

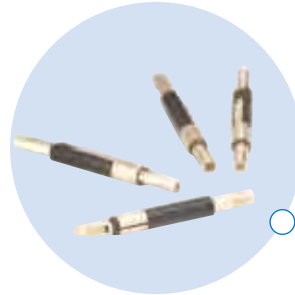
Planars, MOV's, and Diode Contacts



Planar Capacitor Array



Assembly Capacitor and MOV Planars



Diode Contacts

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

Adapters

Adapters:

Features and Benefits:



- protection to an installed system
- MIL-SPEC connectors
- transient protection

- 4, MIL-DTL-26482 types

Filter Plug:

Features and Benefits:



- is denied
- EMI/EMP receptacles

- 4, MIL-DTL-26482 types

Transient Protection

Diode:

Features and Benefits:



- sensitive circuits

- or Uni-polar
- 3, 0.1A

MOV:

Features and Benefits:



- circuits

- suppression assemblies

ESA - Energy Shunting Assembly:

Features and Benefits:



- EMP Protection
- protection devices

- 0.1A

ESD

ESD:

Features and Benefits:



- conductive enclosures

- standard counterparts

High Speed

High Speed:



- impedance variations

- Features and Benefits:
- impedance variations

Sealed Connectors

Hermetic & High Speed Hermetic:

Features and Benefits:

- High speed
- High reliability
- Standard series

- High speed
- High reliability
- Available

Aquacon:

Features and Benefits:

- High speed
- High reliability
- High speed

- High speed
- High reliability
- High speed

Epoxy Sealed Connectors:

Features and Benefits:

- High speed
- Hermetic connector
- Maintained after temperature

- High speed
- MIL-SPEC circular connectors

Sealed Receptacles with Crimp Contact:

Features and Benefits:

- High speed
- High reliability
- Cycles -55 to +125°C

- New/Featured
- High speed
- High reliability

Printed Circuit Board Mount

Press Fit Connectors:

Features and Benefits:

- High speed
- Boards
- High speed
- High speed

- High speed
- High speed
- High speed

Printed Circuit Board Mount:

Features and Benefits:

- High speed
- Aluminum shells

- High speed
- High speed

Header for Flex Printed or PC Board:

Features and Benefits:

- High speed
- High speed

- High speed
- High speed

Composite:

Features and Benefits:

- High speed
- 4, 6
- High speed
- High speed
- High speed

- Over metal
- High speed
- High speed
- High speed
- High speed

Weight Saving

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

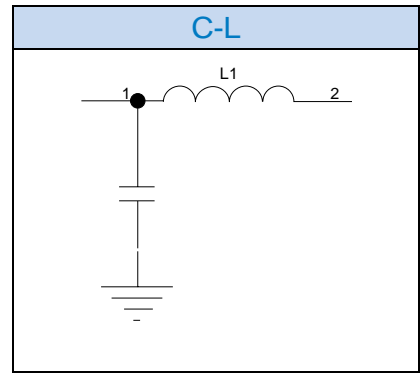
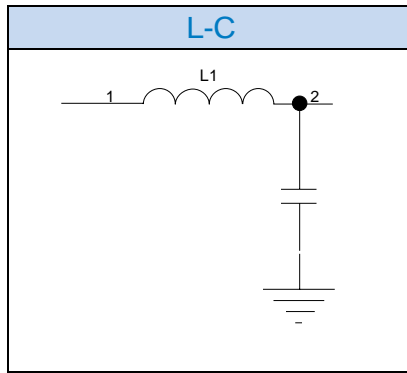
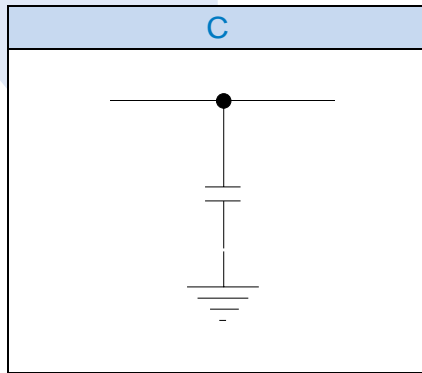
22992
Class 1

Back-
Shells

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol® - [REDACTED]



- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

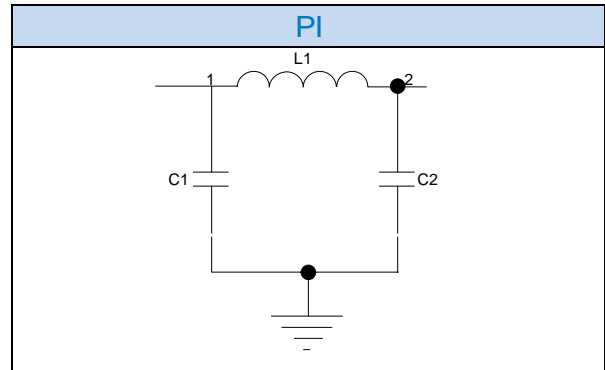
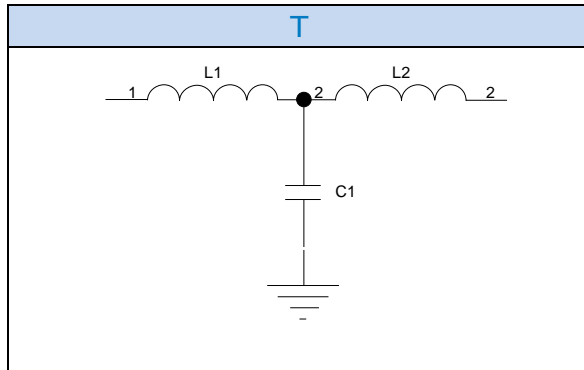
26500 Pyle

5015 Cimp Rear Release Matrix

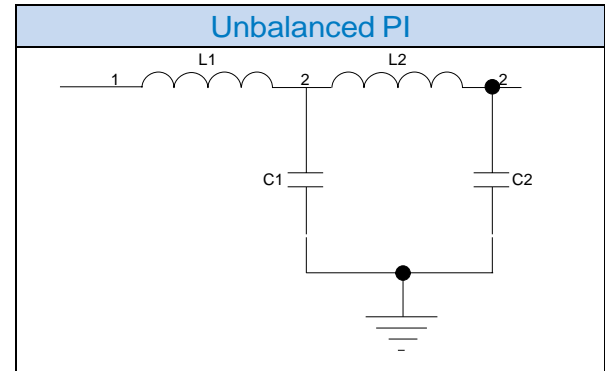
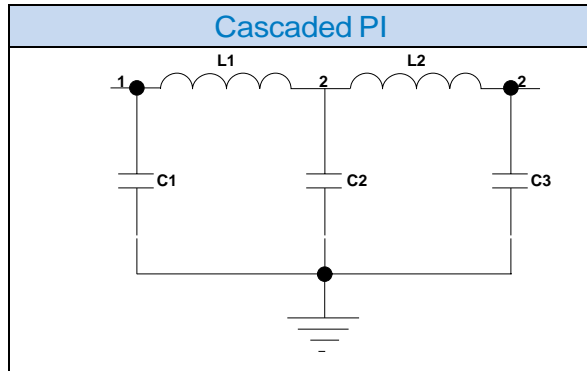
22992 Class 1

Back-Shells

Options Others



6 (AD) [REDACTED]
[REDACTED]
[REDACTED] - (Z) [REDACTED]
[REDACTED]
impedances



[REDACTED]
[REDACTED]
[REDACTED]

Consult Amphenol Aerospace for attenuation performance values

Effect of Temperature on EMI Filter Attenuation Curve

38999

Filter Type	MF1 *	HF1	6 (	6 (	UHF2	UHF1
PI	Casc PI	PI	PI	PI	PI	PI
AD			AD	AD	AD	
AD					500	
AD					800	
						450
X 6	50	200	200	200	200	200
	100	500	500	500	500	500
CHMS		10	10	10	10	10
NEB-(Z						
-(Z	29	1	0	0	0	0
-(Z	46	5		0	0	0
-(Z		12	9		0	0
-(Z	80	26	19	10	2	1
-(Z	80	59	40	21	8	5
-(Z	80	80	62		22	16
-(Z	80	80	72	59		
(Z	64	80	68	66	56	49

CHMS	
X 6	
CHMS	0 10
AXCHMS	
CHMS AD 10	5
CHMS 10	
CHMS 10	

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

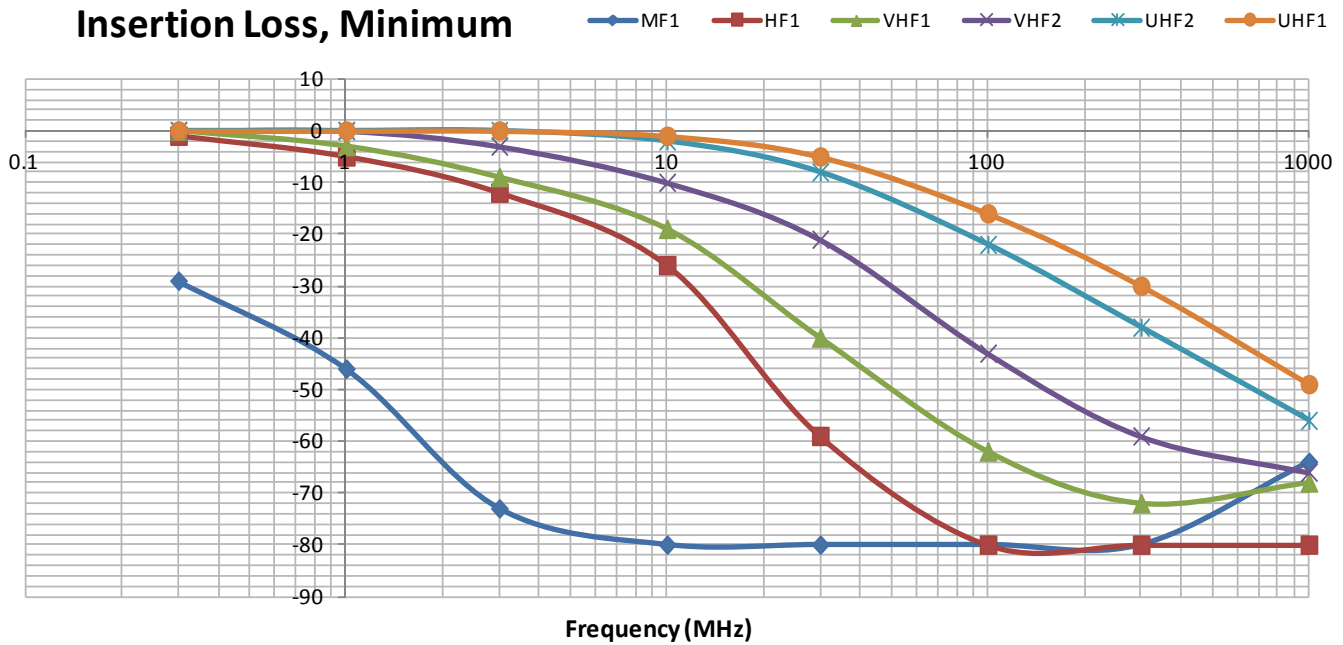
5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

Insertion Loss, Minimum



CS
DEMOS
N
O
G

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others



Z_S (SOURCE IMPEDANCE) - (Z) Z_L (LOAD IMPEDANCE) Z_{12} (TRANSFER IMPEDANCE) respectively
 X (REFLECTION COEFFICIENT) Γ (VOLTAGE REFLECTION COEFFICIENT)

$$\Gamma = \frac{Z_L - Z_0}{Z_L + Z_0}$$

Z_S (SOURCE IMPEDANCE)
 Z_L (LOAD IMPEDANCE)
 Z_{12} (TRANSFER IMPEDANCE)

$$S_{11} = \frac{Z_{12} - Z_0}{Z_{12} + Z_0}$$

Z_0 (CHARACTERISTIC IMPEDANCE)
 Γ (VOLTAGE REFLECTION COEFFICIENT)
 S_{11} (RETURN LOSS)

Attenuation vs Transfer Impedance in 50 Ohm System

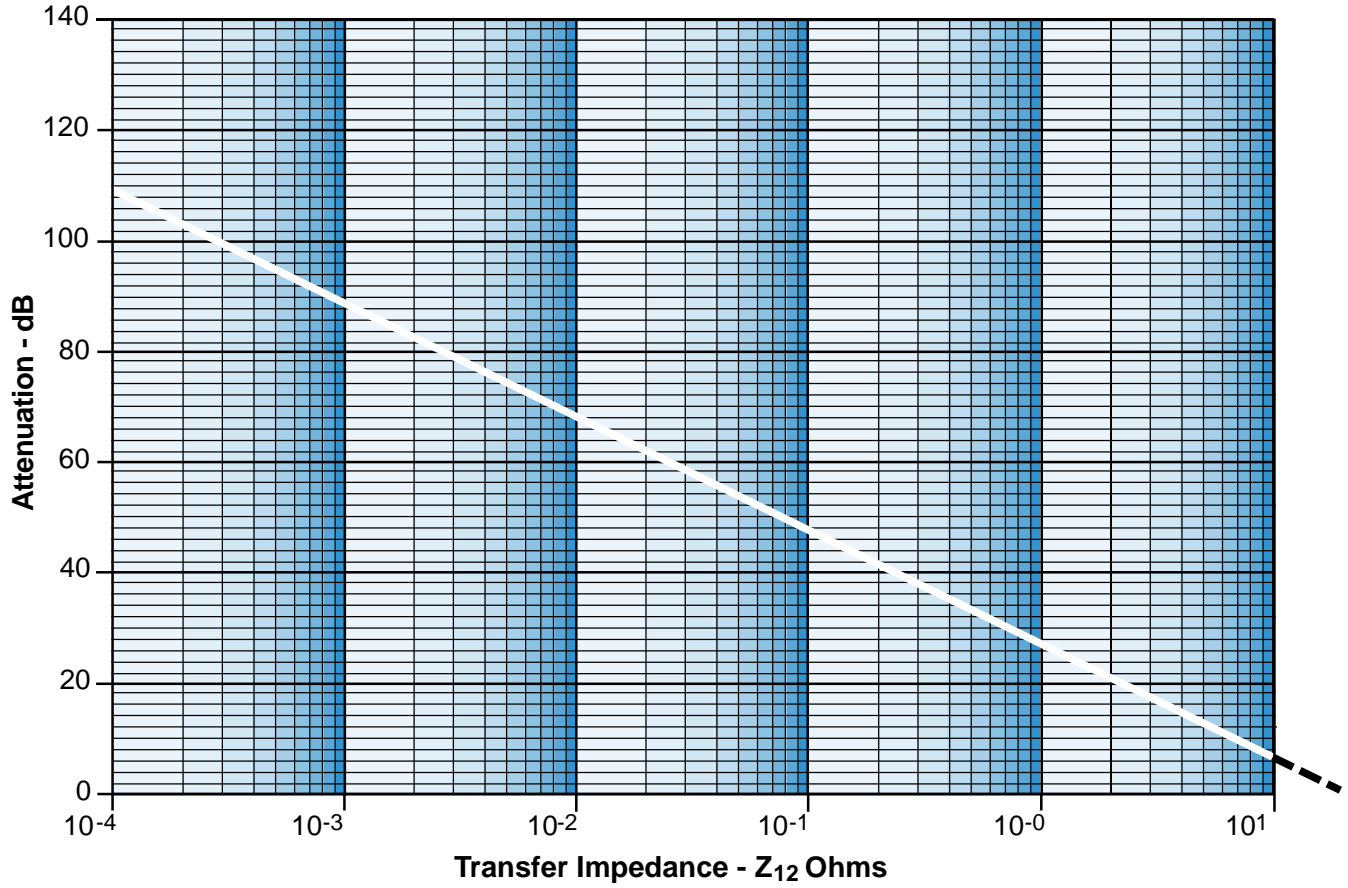


Figure 1

Testing

Acceptance Testing

[REDACTED]

Mechanical Inspection

[REDACTED]

Electrical Tests

[REDACTED] working voltage and to the test [REDACTED]
 [REDACTED]
 [REDACTED] IRG
 [REDACTED] A-Z

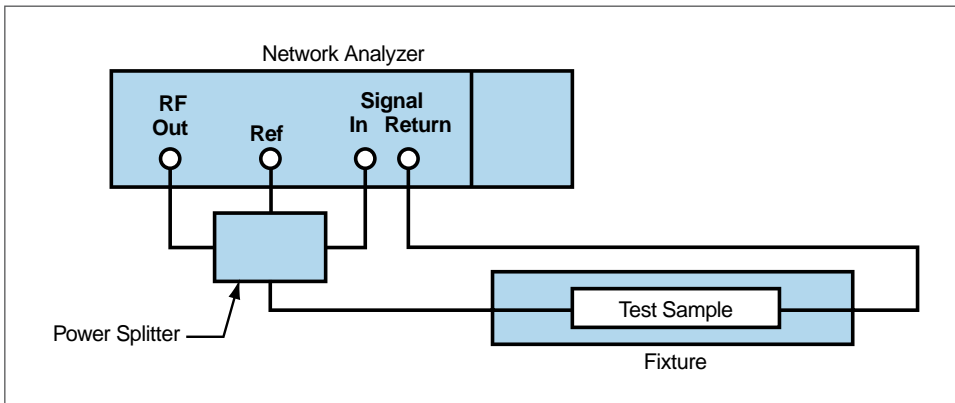
Special Tests/Processes

[REDACTED]
 [REDACTED]
 [REDACTED] - (Z
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

Qualifications

at the Amphenol [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED], 4, [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

ATTENUATION TEST CIRCUIT



There are multiple test stations located on the Amphenol production floor that support all in-process, final electric and qualification testing as necessary.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

Easy Steps to build a part number... Filter

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

Filter Connector Designator	Connector and Filter Type	Shell Finish	Shell Styles	Shell Size – Insert Arrg.	Type of Contact and Keyway Position	Printed Circuit Board Tail Length
21	24	9	2	16-26	P	1

Step 1. Select a Connector Type

	Designates Filter Connector
21	Filter Connector
36	-
47	Diode Connector

Step 3. Select a Shell Finish

	Designates
0	Chromate
1	
2	
4	
5	
7	
8	
9	-3
D	

Step 4. Select a Shell Style

	Designates
0	
2	
3	
4	
7	

Step 5. Select a Shell Size & Insert Arrangement

Shell Size	Designates
8 through 24	
9 through 25	

Step 2. Select a Connector/Filter Type

	Designates
20	04
22	04
24	*4
25	*4
26	.
29	,*4
31	04
32	*4
33	04
34	*40
36	,*4
37	*4
38	*40
39	*40
40	,*4
41	*4
46	04
47	,*401
48	,*401
50	46
51	46
52	46
53	46
56	*40
57	
58	*401
61	,
63	3*4
64	,
65	3*4
73	-
76	46
77	46
78	46 0
79	
80	46 0
82	46 combination
83	3*4 combination
84	46
87	,*4 combination

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release
- Matrix
- 22992
- Class 1
- Back-Shells
- Options
- Others

Step 6. Select the type of Contact and Normal or Alternate Keying Positions

Shell Size	Designates
P	Pins in a normal rotation
S	Socket in a normal rotation

Rotations

ALTERNATE ROTATION SUFFIX LETTERS

FJT, FLJT or FSJT			FTV or FCTV			FPT			FBL Series IV			FAN		
Alternate Position	Suffix Letter		Alternate Position	Suffix Letter		Alternate Position	Suffix Letter		Alternate Position	Suffix Letter		Alternate Position	Suffix Letter	
	Pins	Sockets		Pins	Sockets		Pins	Sockets		Pins	Sockets		Pins	Sockets
Normal	P	S	Normal	P	S	Normal	P	S	Normal	P	S	Normal	P	S
A	E	F	A	G	H	W	G	H	A	E	F	W	G	H
B	R	T	B	I	J	X	I	J	B	G	H	X	I	J
C	W	X	C	K	L	Y	K	L	C	J	L	Y	K	L
D	Y	Z	D	M	N	Z	M	N	D	R	T	Z	M	N
			E	R	T				K	W	X	12	C	D
												13	A	B

Step 7. (Optional) This will change Connector to PCB Termination from default Solder Cup

Code	±.030	Pre-Tinned?
1	0.120	NO
2		YES
3	0.185	NO
4		YES
5	0.270	NO
6		YES

Note:

-2XX Suffix

Any combination of filters, non-filters, grounds, and non-standard contact terminations will require -2XX suffix. Please consult Amphenol Aerospace for assistance in setting up these part numbers.

- Standard voltage for diode is ±8 volts. Any deviation requires a -2XX suffix.
- Standard voltage for a MOV is 47 volts. Any deviation requires a -2XX suffix.
- Standard diode/filter combination is ±8 volt/VHF-1 filter. Any deviation requires a -2XX suffix.
- Standard MOV/filter combination is 47 volt/VHF-1 filter. Any deviation requires a -2XX suffix.

Unable to find what you are looking for under our "How to Order" page 280?. Fill out our EMI Check Sheet and send it to Filterapps@amphenol-aao.com or call us directly at 800-678-0141

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

call us directly at 800-678-0141

Date _____

Ref. Filter P/N _____ Ref. Mil-Spec _____

Filter Requirements:

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

_____, 4, _____

Frequency (MHz)	Insertion Loss (dB)
1	
10	
100	

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

Electrical Requirements:

Modified Shell _____

- EMI Filter
- Transient

Special Requirements _____

- 26482
- Matrix 2

Contact Termination:

- 83723 III
- Matrix | Pyle

54RMP _____

Solder Cup _____

Compliant Pin _____

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

0 LA _____

- 22992
- Class 1

- Back-Shells

Special Stamping: _____

- Options
- Others

Customer: _____

Program: _____

Forecast: _____

Requested by: _____

Comments: _____



FTV

The Amphenol®46

- 466
-)

FTV & FCTV Composite

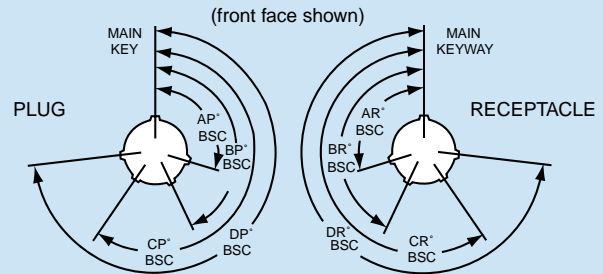
Intermateable with MIL-DTL-38999 Series III Connectors (See section Series III TV, MIL-DTL-38999)

- erosion of contacts
- 4,



FTV

Composite FCTV Connector for PCB board mounting. Amphenol is currently the only supplier of one-piece composite PCB stand-off shells.



FTV & FCTV Key/Keyway Positions

Shell Size	Key & Keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
9	.	105	140	215	265
	A	102		248	
		80	118		
	C		140	205	275
	D	64	155		
	E	91		197	240
	.	95	141	208	292
	A		156	182	252
		90	145	195	255
	C		156	220	255
	D	119	146	176	298
	E	51	141	184	242
	.	80	142	196	
	A		170	200	
		49	169	200	244
17 and 19	C	66	140	200	257
	D	62	145	180	280
	E	79		197	272
	.	80	142	196	
	A		170	200	
		49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79		197	272

FCTV



Rotations

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

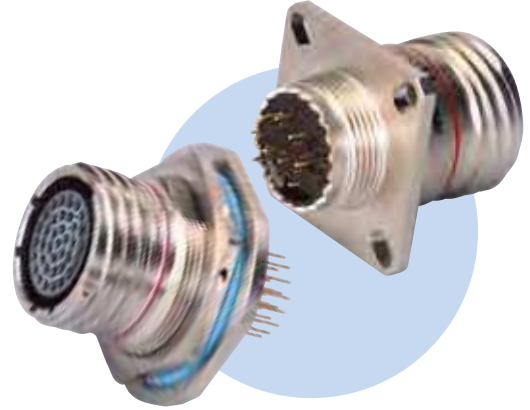
Back-
Shells

Options
Others



38999

Amphenol Aerospace is the Leader in EMI Filter Protection Connectors



Now you can have the High Performance Amphenol 38999 Style Filter Connectors in 2 Weeks or Less!

2 Week Filter Receptacles

4523

30

30

30

Solder cup or printed circuit tail contacts available

.43

30

30

30

30

30

30

30

30

30

30

0 2 2 - .

Temp.	FCO	1MHz	3MHz	10MHz	30MHz	100MHz	300MHz	1000MHz
-55°C	-	1	2	8	21	44	61	65
20M	-	1	6	18	42	62	72	75
+125°C	-	0	2	9	24	45	62	64

How to Order 2 Week Filter Receptacles

Part Number*	Shell Finish	Shell Style**	Shell Size	Insert Arrangement	(Optional) Termination Type
21-55	4	0	09	0	2

indicates Filter Connector

Series III

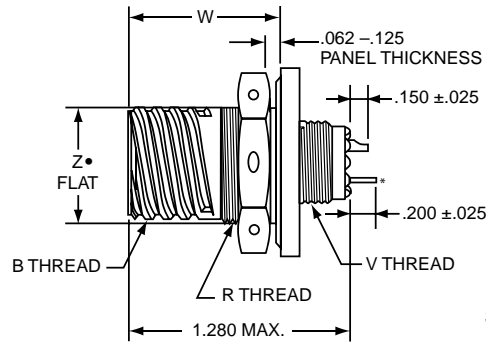
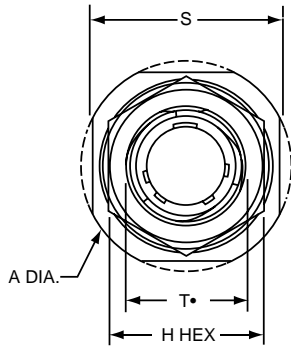
09 - 25

Available only in double

option the connector Termination from default Solder Cup

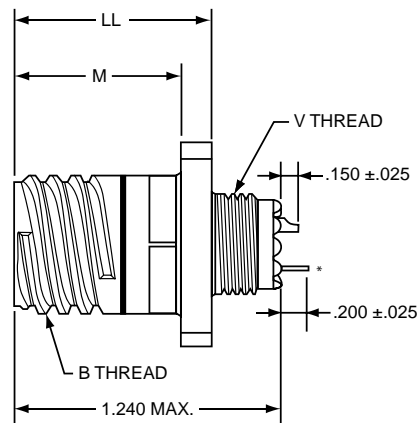
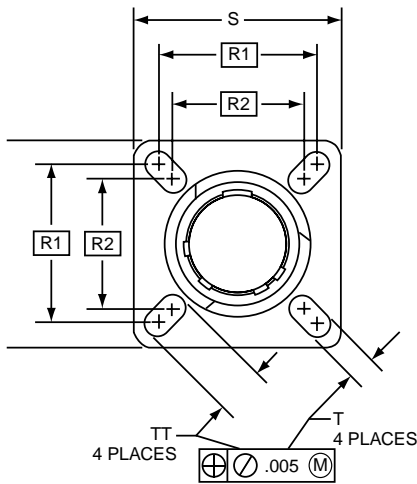
WAVEMETER

2 Week Filter - Jam Nut, Wall Mount Receptacles



JAM NUT RECEPTACLE

Shell Size	A Dia* Max	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 -0.016	R Thread Metric (Plated)	S ±.010	T Dia +.010 -0.000	V Thread Metric (Plated)	W +.011 -0.010	Z Flat +.000 -0.010
9				- 8 G 2		- 8 G 2			
11				- 8 G 2		- 8 G 2			
				- 8 G 2		- 8 G 2			
15				- 8 G 2		- 8 G 2			
17				- 8 G 2		- 8 G 2			
19				- 8 G 2		- 8 G 2			
21				- 8 G 2		- 8 G 2			
				- 8 G 2		- 8 G 2			
25				- 8 G 2		- 8 G 2			



WALL MOUNT RECEPTACLE

Shell Size	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M +.000 -0.005	LL +.006 -0.000	R ¹ TP	R ² TP	S Max	T +.008 -0.006	V Thread Metric (Plated)	TT +.008 -0.006
9							- 8 G 2		
11							- 8 G 2		
							- 8 G 2		
15							- 8 G 2		
17							- 8 G 2		
19							- 8 G 2		
21							- 8 G 2		
							- 8 G 2		
25							- 8 G 2		

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

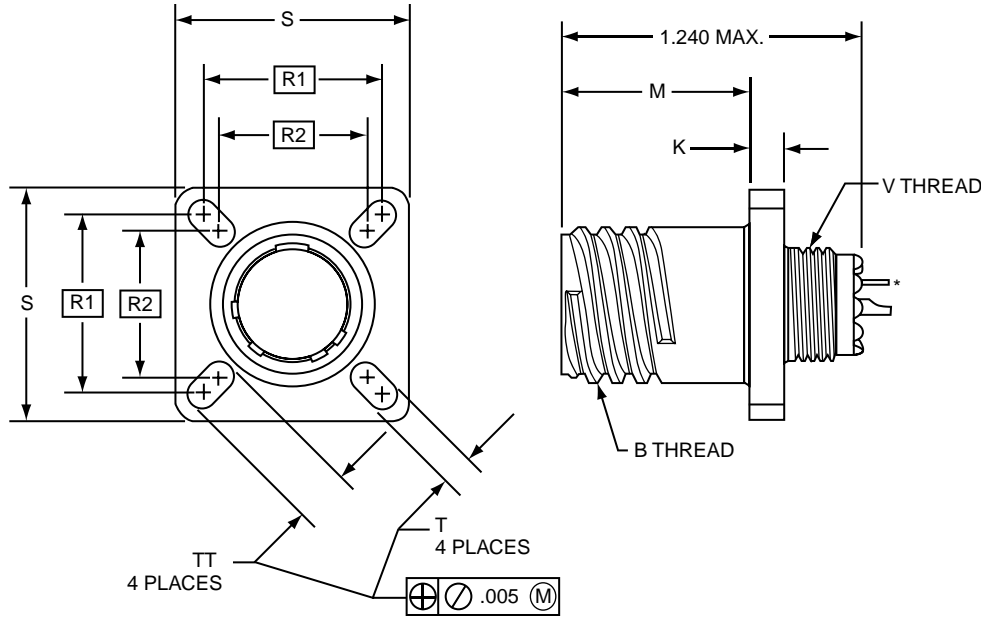
Options Others



38999

PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell Style	Type of Contact/
21	76	X	0	XX-XX	X



21-76X0

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Shell Size	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M +.000 -0.005	K ±.0025	R ¹ TP	R ² TP	S +.011 -0.010	T +.008 -0.006	TT +.008 -0.006	V Thread Metric (Plated)
9								- 8	G 2
11								- 8	G 2
								- 8	G 2
15								- 8	G 2
17								- 8	G 2
19								- 8	G 2
21								- 8	G 2
								- 8	G 2
25								- 8	G 2

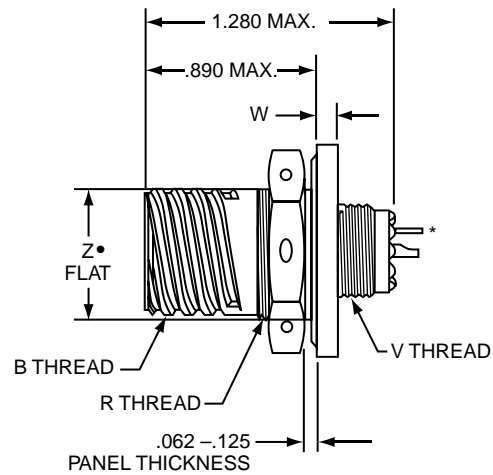
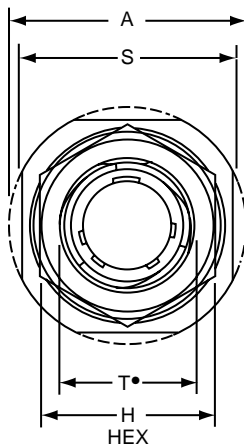


38999

PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	76	X	7	XX-XX	X

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



21-76X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

SHELLS

Shell Size	A Dia. ±.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 -.016	R Thread Metric (Plated)	S ±.015	T ±.010 -.000	V Thread Metric (Plated)	W +.035 -.004	Z Flat +.000 -.010
9			- 8	G 2		- 8	G 2		
11			- 8	G 2		- 8	G 2		
			- 8	G 2		- 8	G 2		
15			- 8	G 2		- 8	G 2		
17			- 8	G 2		- 8	G 2		
19			- 8	G 2		- 8	G 2		
21			- 8	G 2		- 8	G 2		
			- 8	G 2		- 8	G 2		
25			- 8	G 2		- 8	G 2		

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

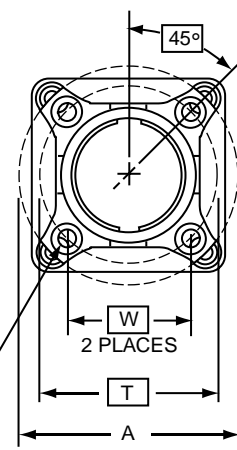
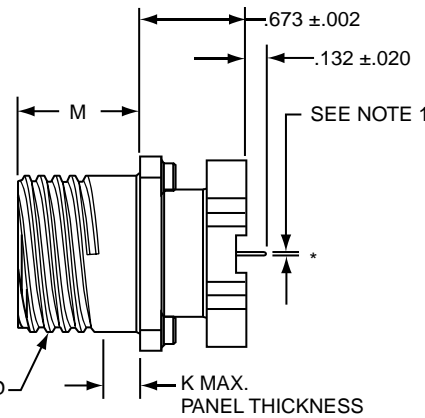
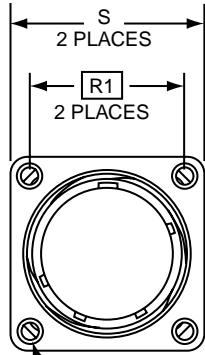
Back-Shells

Options Others

38999

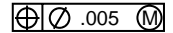
PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell	Type of Contact/
21	78	X	2	XX-XX	X

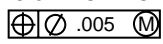


21-78X2

(4) CORROSION RESISTANT STEEL
.112-40 UNC-3B SELF-LOCKING
CLINCH NUTS PER MIL-N-45938/6-4C



(4) CORROSION RESISTANT STEEL
.112-40 UNC-3B INSERTS



*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

Shell Size	A Dia. ±.005	B Thread Class 2A 0.1P-0.3L-TS (Plated)	M +.003 - .003	K Max. Panel Thickness	R' TP	S +.011 -.010	PCB Mounting Dimensions	
							T Dia. TP	W TP
9								
11								
15								
17								
19								
21								
25								

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

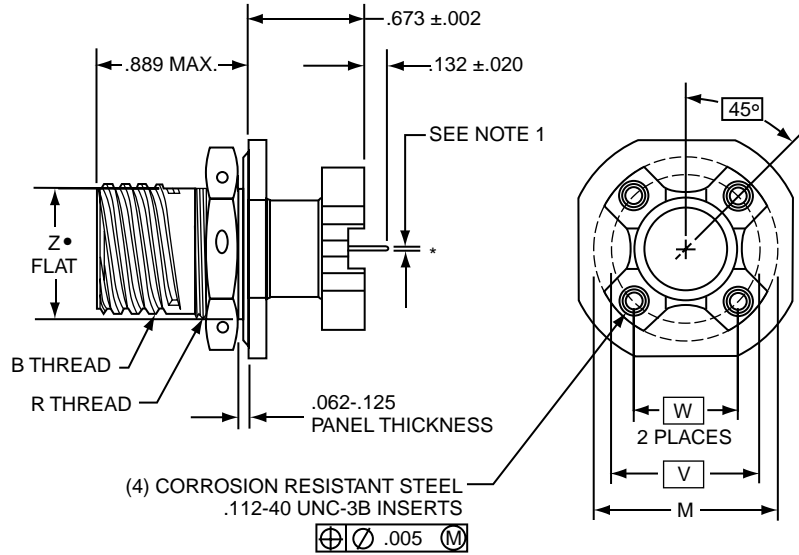
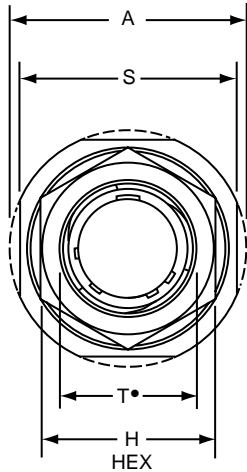
Back-Shells

Options Others



PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell	Type of Contact/
21	78	X	7	XX-XX	X



21-78X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

Shell Size	A Dia. ±.005	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 - .016	M Dia. ±.005	R Thread Metric (Plated)	S +.011 - .010	T• Dia. +.010 - .000	PCB Mounting Dimensions		Z• Flat +.000 - .010
								W TP	V Dia. TP	
9					8 G 2					
11					8 G 2					
15					8 G 2					
17					8 G 2					
19					8 G 2					
21					8 G 2					
25					8 G 2					

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

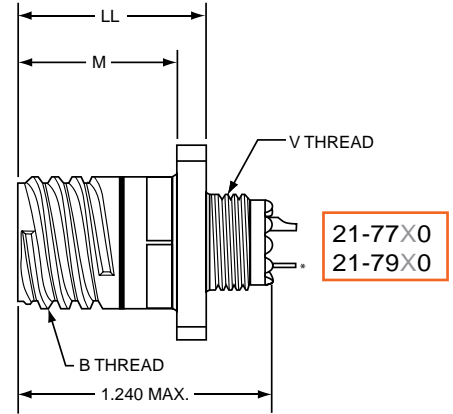
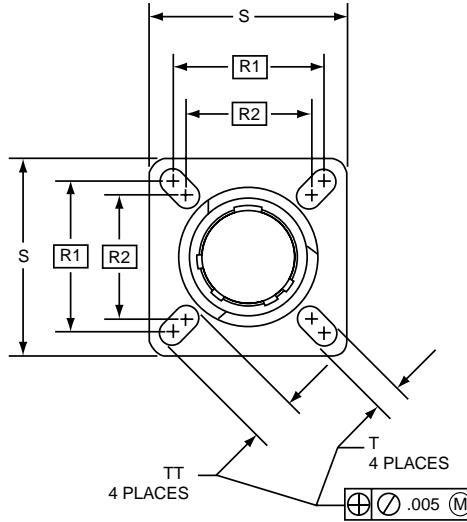
22992
Class 1

Back-Shell

Options
Others

HEIGHT

PART #	Filter Connector	21	21
To complete, see how to order pages 278-280.	Connector Filter Type	77	79
	Shell Finish	X	X
	Shell Style	0	0
	Insert & Insert	XX-XX	XX-XX
	Type of Contact/Position	X	X



*Note 1. Standard Printed Circuit Termination diameter

Shell Size	BThread Class 2A 0.1P-0.3L-TS (Plated)	M +.000 - .005	LL +.006 - .000	R ¹ TP	R ² TP	S Max	T +.008 - .006	V Thread Metric (Plated)	TT +.008 - .006
9							- 8	G 2	
11							- 8	G 2	
15							- 8	G 2	
17							- 8	G 2	
19							- 8	G 2	
21							- 8	G 2	
25							- 8	G 2	

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup
 Amphenol Aerospace for

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

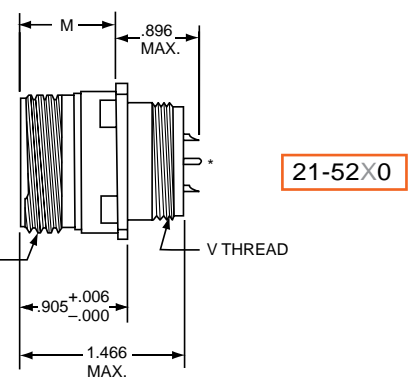
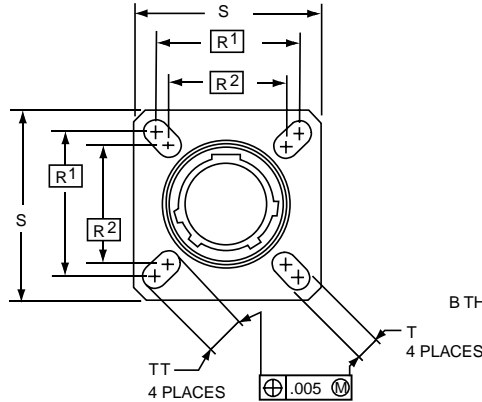
- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

PART #	Filter Connector	21
To complete, see how to order pages 278-280.	Connector Filter Type	52
	Shell Finish	X
	Shell Style	0
	Insert & Insert	XX-XX
	Type of Contact/Position	X



*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

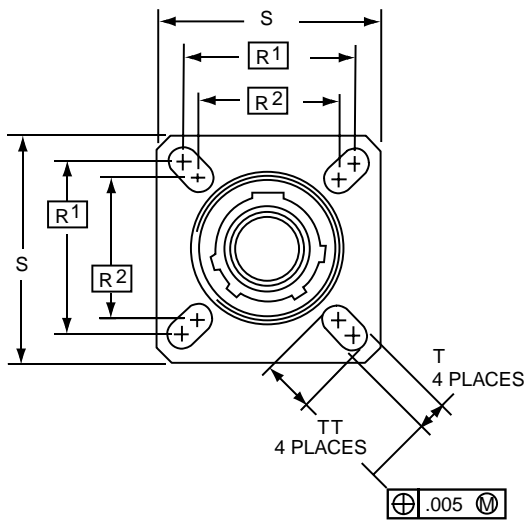
s Standard contact termination is Solder Cup
 Amphenol Aerospace for

capacitance applications
 MIN

Shell Size	BThread Class 2A 0.1P-0.3L-TS (Plated)	M +.000 - .005	R ¹ TP	R ² TP	S ±.010	T +.008 - .006	V Thread Metric (Plated)	TT +.008 - .006
9						- 8	G 2	
11						- 8	G 2	
15						- 8	G 2	
17						- 8	G 2	
19						- 8	G 2	
21						- 8	G 2	
25						- 8	G 2	

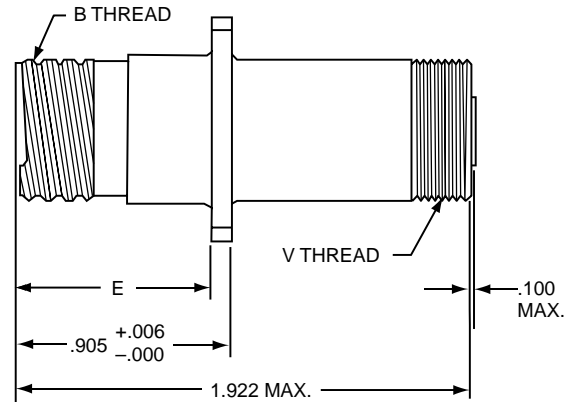
PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	50	X	0	XX-XX	X
UTS (Crimp) Contact SAE AS39029/57					



21-50X0

UTS (Crimp) Contact
SAE AS39029/57



Shell Size	BThread Class 2A 0.1P-0.3L-TS (Plated)	E +.000 - .005	R ¹ TP	R ² TP	S ±.010	T +.008 - .006	V Thread Metric (Plated)	TT +.008 - .006
9						- 8	G 2	
11						- 8	G 2	
						- 8	G 2	
15						- 8	G 2	
17						- 8	G 2	
19						- 8	G 2	
21						- 8	G 2	
						- 8	G 2	
25						- 8	G 2	

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

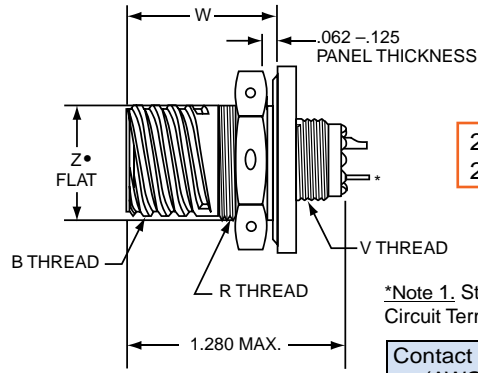
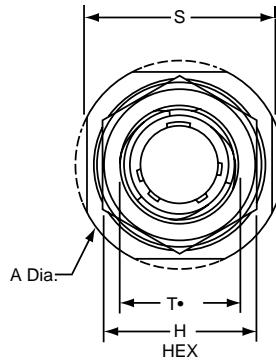
- Back-Shell

- Options Others

21-77X7

PART #
To complete, see how to order pages 278-280.

Filter Connector	21	21
Connector Filter Type	77	79
Shell Finish	X	X
Shell Style	7	7
Insert & Insert	XX-XX	XX-XX
Type of Contact/ Position	X	X



21-77X7
21-79X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

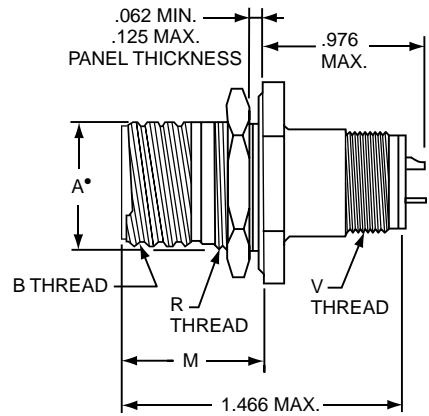
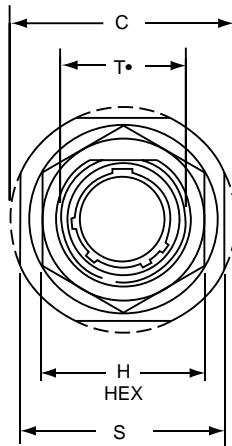
Amphenol Aerospace for

Shell Size	A Dia* Max	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 -0.016	R Thread Metric (Plated)	S ±.010	T* Dia +.010 -0.000	V Thread Metric (Plated)	W +.011 -0.010	Z* Flat +.000 -0.010
9				8 G 2		- 8	G 2		
11				8 G 2		- 8	G 2		
15				8 G 2		- 8	G 2		
17				8 G 2		- 8	G 2		
19				8 G 2		- 8	G 2		
21				8 G 2		- 8	G 2		
25				8 G 2		- 8	G 2		

21-52X7

PART #
To complete, see how to order pages 278-280.

Filter Connector	21
Connector Filter Type	52
Shell Finish	X
Shell Style	7
Insert & Insert	XX-XX
Type of Contact/ Position	X



21-52X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Amphenol Aerospace for

Shell Size	A* ±.000 -0.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	H Hex +.017 -0.016	M +.011 -0.010	R Thread (Plated)	S +.011 -0.010	T* +.010 -0.000	V Thread Metric (Plated)
9						8 G 2		- 8	G 2
11						8 G 2		- 8	G 2
15						8 G 2		- 8	G 2
17						8 G 2		- 8	G 2
19						8 G 2		- 8	G 2
21						8 G 2		- 8	G 2
25						8 G 2		- 8	G 2

to accommodate

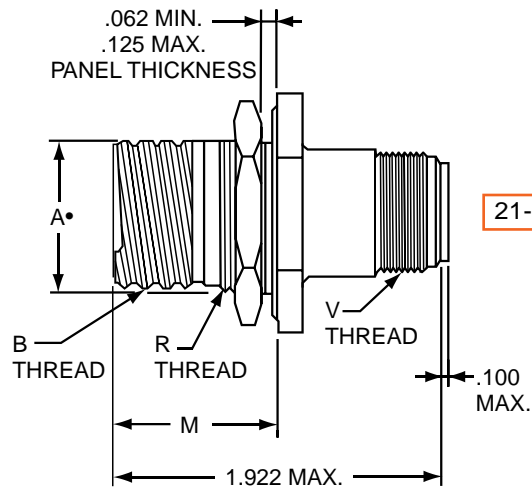
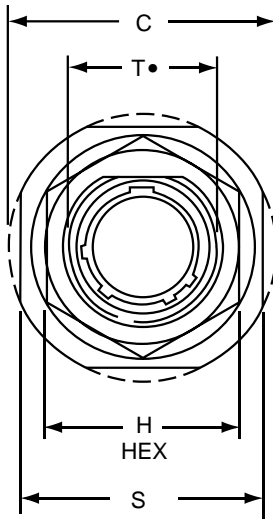
capacitance applications

MIN

543RMP

PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	REF	Type of Contact/
21	50	X	7	XXX-XX	X
UTS (Crimp) Contact SAE AS39029/57					



21-50X7

• **CAUTION**

Shell Size	A* +.000 -.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	C Max	H Hex +.017 -.016	M ±.005	R Thread (Plated)	S +.011 -.010	T* +.010 -.000	V Thread Metric (Plated)
9					-	8 G 2		- 8	G 2
11					-	8 G 2		- 8	G 2
					-	8 G 2		- 8	G 2
15					-	8 G 2		- 8	G 2
17					-	8 G 2		- 8	G 2
19					-	8 G 2		- 8	G 2
21					-	8 G 2		- 8	G 2
					-	8 G 2		- 8	G 2
25					-	8 G 2		- 8	G 2

• **CAUTION**

• **CAUTION**

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell Style	Type of Contact/
21	80	X	2	XX-XX	X

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

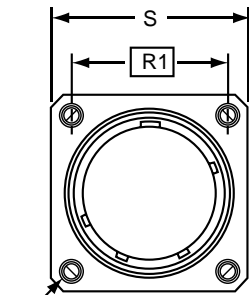
26500 Pyle

5015 Crimp Rear Release Matrix

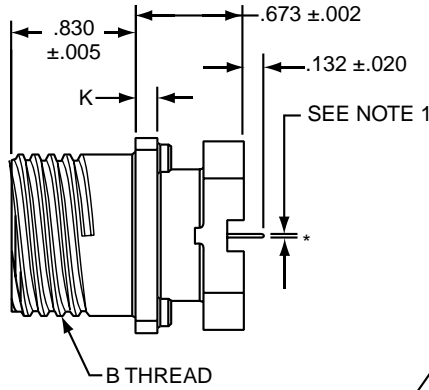
22992 Class I

Back-Shells

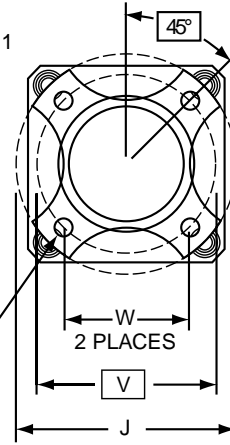
Options Others



(4) CORROSION RESISTANT STEEL
.112-40 UNC-3B CLINCH NUTS
⊕ ∅ .005 M



(4) CORROSION RESISTANT STEEL
HELICAL COIL WITH LOCKING THREADS
.112-40 UNC-3B INSERTS
⊕ ∅ .005 M



21-80X2

*Note 1. Standard Printed Circuit Termination diameter

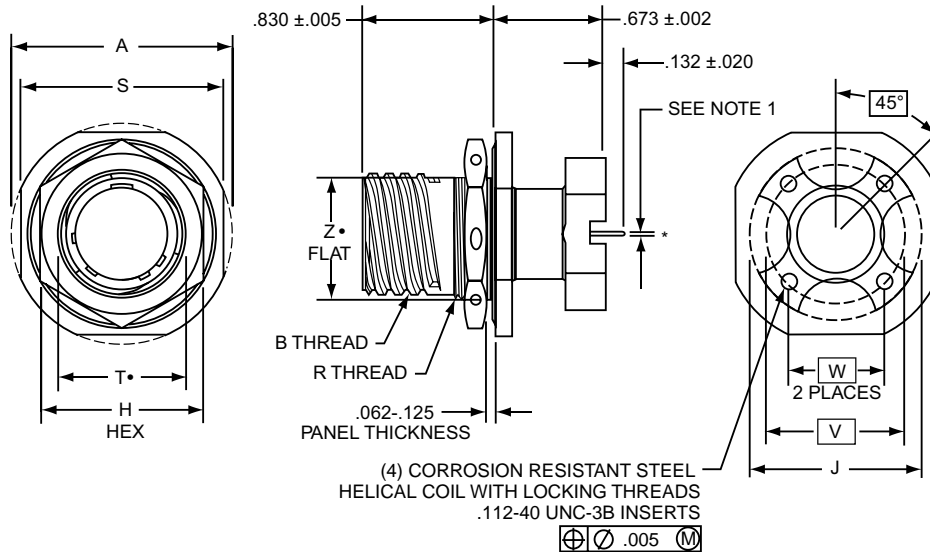
Contact size (AWG)	±.002
22	
20	
16	
12	

Shell Size	BThread Class 2A 0.1P-0.3L-TS (Plated)	J Dia. ±.005	K ±.005	R' TP	S ±.010	PCB Mounting Dimensions	
						W TP	V Dia. TP
9							
11							
15							
17							
19							
21							
25							



PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell Style	Type of Contact/
21	80	X	7	XX-XX	X



21-80X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

57100

Shell Size	A Dia. ±.010	B Thread Class 2A 0.1P-0.3L-TS (Plated)	H Hex +.017 -.016	J Dia. ±.005	R Thread Metric (Plated)	S ±.015	T • Dia. +.010 -.000	PCB Mounting Dimensions		Z • Flat +.000 -.010
								W TP	V Dia. TP	
9					8 G 2					
11					8 G 2					
					8 G 2					
15					8 G 2					
17					8 G 2					
19					8 G 2					
21					8 G 2					
					8 G 2					
25					8 G 2					

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

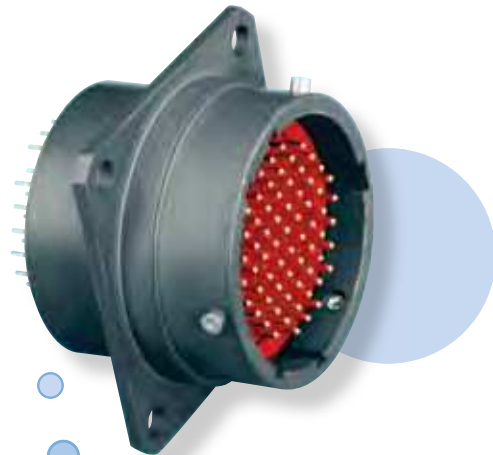
22992 Class I

Back-Shell's

Options Others



The Amphenol® FJT Series space and weight saving design, coupled with a filter, gives high reliability.



FJT

4, 5

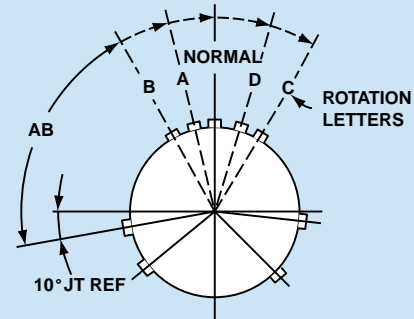
s

permanently encapsulated contacts
s Environmental resistant

1

FJT Master Key/Keyway Rotation

Shell Size	AB Angle of Rotation (Degrees)				
	Normal	A	B	C	D
8	100	82	–	–	118
10	100	86	72	128	114
12	100	80	68		120
14	100	79	66		121
16	100	82	70		118
18	100	82	70		118
20	100	82	70		118
22	100	85	74	126	115
24	100	85	74	126	115



RELATIVE POSSIBLE POSITION OF ROTATED MASTER KEYWAY (front face of receptacle shown)

Rotations

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

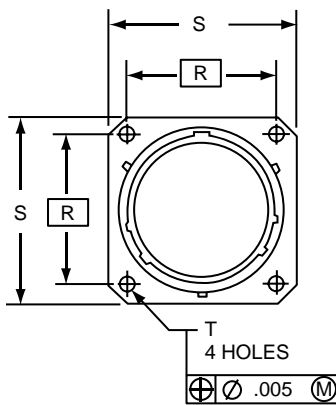
Options Others



PART

To complete, see how to order pages 278-280.

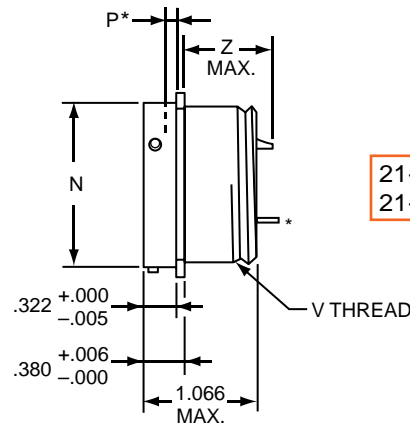
Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	24	X	0	XX-XX	X
21	32	X	0	XX-XX	X
21	37	X	0	XX-XX	X



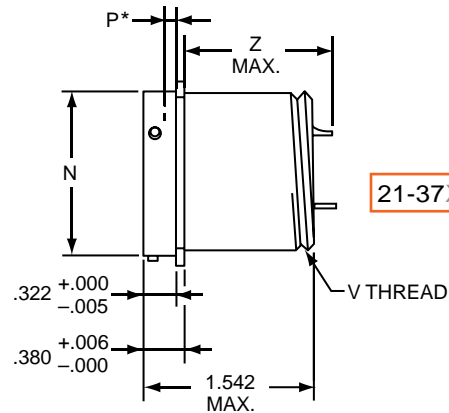
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup



21-24X0 (MS27334)
21-32X0 (MS27334)



21-37X0 (MS27334)

Shell Size	N Dia +.001 -.005	P* Max.	R (TP)	S +.011 -.010	T Dia. ±.005	V Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
							Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
8											
10											
12											
14											
16											
18											
20											
22											
24											

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

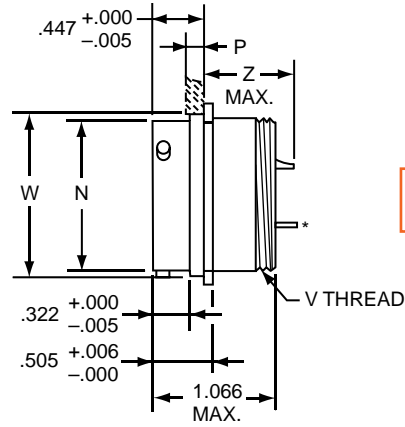
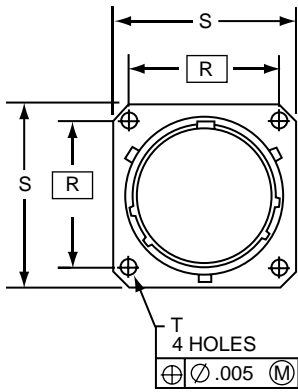


ACKNOWLEDG

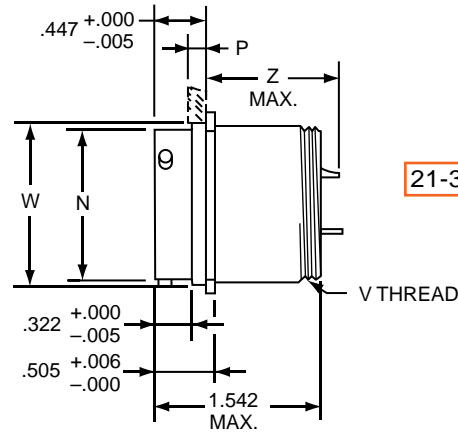
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix (Pyle)
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

PART #
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE SET	Type of Contact/
21	34	X	0	XX-XX	X
21	39	X	0	XX-XX	X
21	38	X	0	XX-XX	X



21-34X0 (MS27497)
21-39X0 (MS27497)



21-38X0 (MS27497)

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

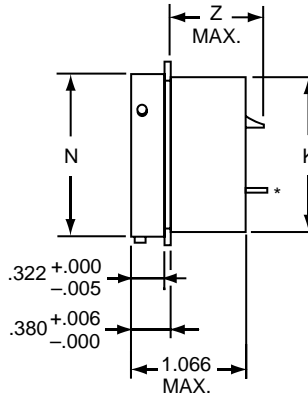
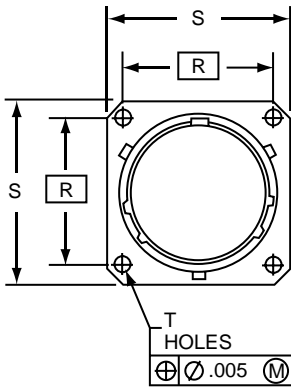
UNMN

Shell Size	N Dia +.001 -.005	P Max. Panel Thickness	R (TP)	S +.011 -.010	T Dia. ±.005	V Thread UNEF-2A (Plated)	W Dia. +.001 -.005	SHORT SHELL VHF/UHF/MF Filters		LONG SHELL HF Filters	
								Size 16 or 16 & 20 Contacts Z Max.	Size 20 or 22 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.
8											
10											
12											
14											
16											
18											
20											
22											
24											

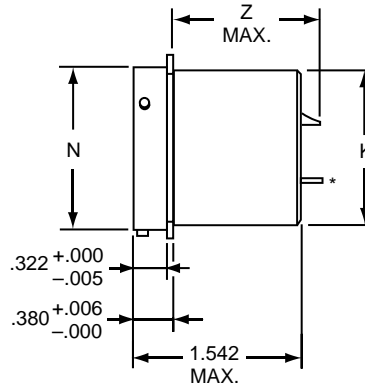
PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE NET	Type of Contact/ SMB
21	24	X	2	XX-XX	X
21	32	X	2	XX-XX	X
21	37	X	2	XX-XX	X



21-24X2 (MS27335)
21-32X2 (MS27335)



21-37X2 (MS27335)

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

MIN

Shell Size	K Dia. +.000 -0.007	N Dia. +.001 -0.005	R (TP)	S +.011 -0.010	T Dia. ±.005	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
						Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
8										
10										
12										
14										
16										
18										
20										
22										
24										

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shell

Options
Others

ACKNOWLEDG

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

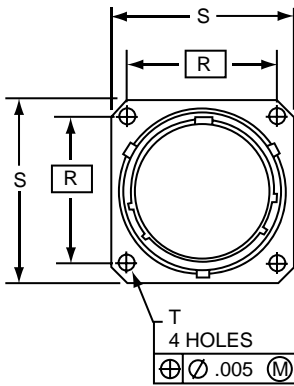
5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

PART #	Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE SET	Type of Contact/ SMD
To complete, see how to order pages 278-280.	21	34	X	2	XX-XX	X
	21	39	X	2	XX-XX	X
	21	38	X	2	XX-XX	X

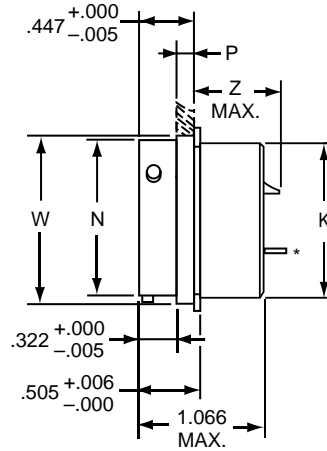


*Note 1. Standard Printed Circuit Termination diameter

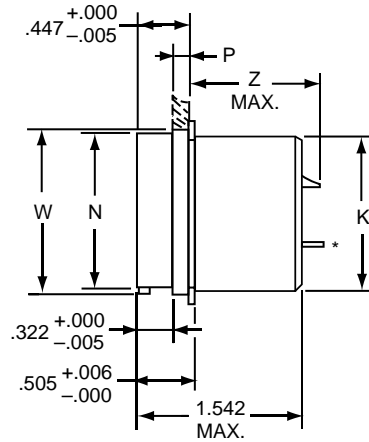
Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

MIN



21-34X2 (MS27508)
21-39X2 (MS27508)



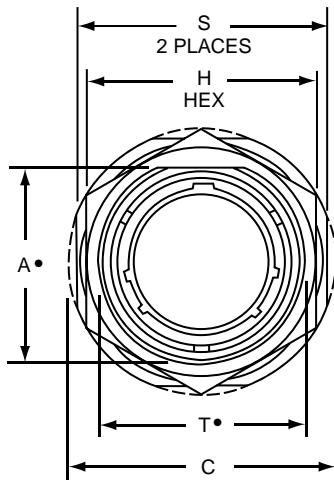
21-38X2 (MS27508)

Shell Size	K Dia. +.000 - .007	N Dia. +.001 - .005	P Max. Panel Thickness	S R (TP) +.011 - .010	T Dia. ±.005	W Dia. +.001 - .005	SHORT SHELL VHF/UHF/MF Filters		LONG SHELL HF Filters	
							Size 16 or 16 & 20 Contacts Z Max.	Size 20 or 22 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.
8										
10										
12										
14										
16										
18										
20										
22										
24										

PART #

To complete, see how to order pages 278-280.

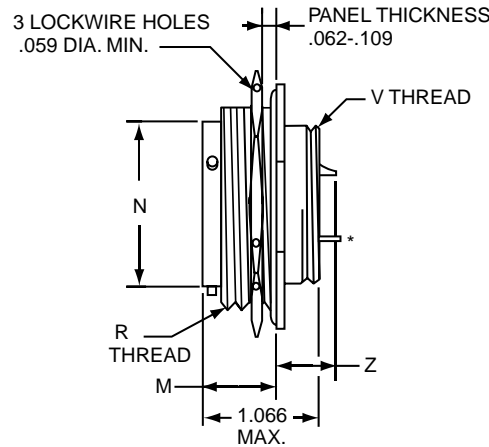
Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell	Type of Contact/
21	24	X	7	XX-XX	X
21	32	X	7	XX-XX	X
21	37	X	7	XX-XX	X



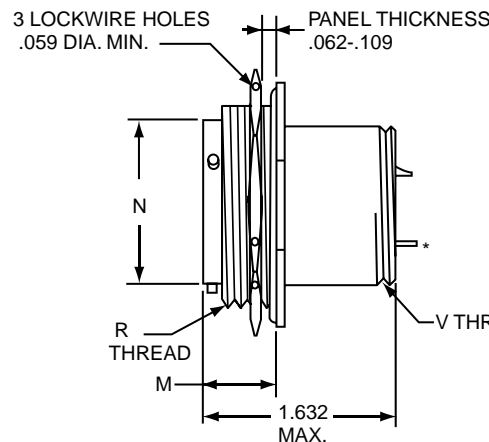
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup



21-24X7 (MS27337)
21-32X7 (MS27337)



21-37X7 (MS27337)

Shell Size	A* Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	M ±.005	N Dia +.001 -.005	R Thread (Plated) Class -2A	S ±.010	T* Dia. +.010 -.000	V Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
										Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.	Size 22 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.
8						5.								
10						5.								
12						5.								
14						5.								
16						5.								
18						5.								
20						5.								
22						5.3								
24						5.								

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

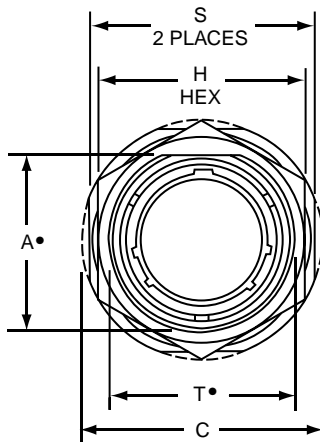
Options
Others

38999

PART #

To complete, see how to order pages 278-280.

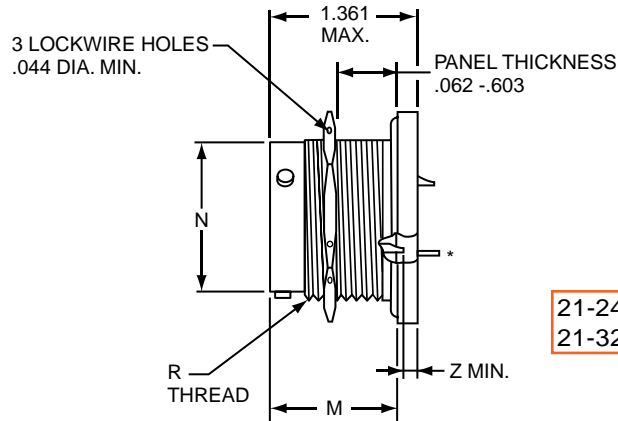
Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Part #	Type of Contact/Shell
21	24	X	4	XX-XX	X
21	32	X	4	XX-XX	X
21	37	X	4	XX-XX	X



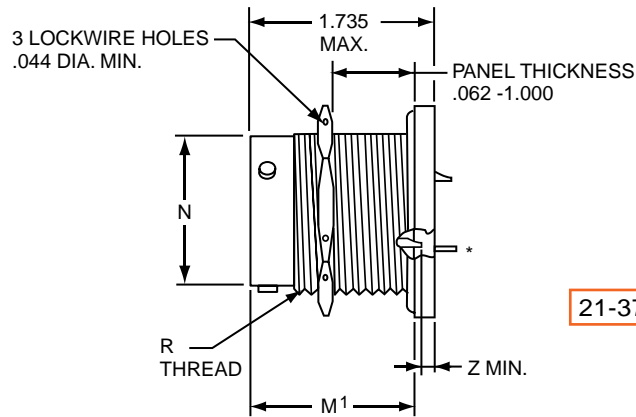
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup



21-24 X 4
21-32 X 4



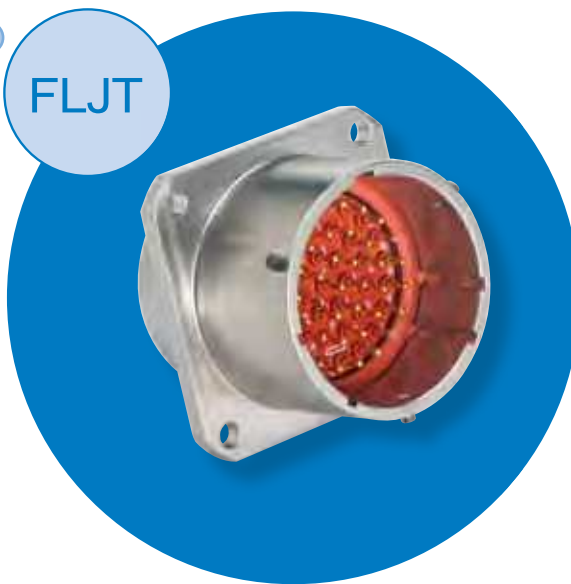
21-37 X 4

MN

Shell Size	A* Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	M	M1	N Dia +.001 -.005	R Thread UNEF-2A (Plated)	S +.011 -.010	T* Dia. +.010 -.000	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
										Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.	Size 22 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.
8														
10														
12														
14														
16														
18														
20														
22														
24														

FLJT

The Amphenol® FLJT Series offers all the design features of the FJT plus a 100% “scoop-proof” contact protection design.



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

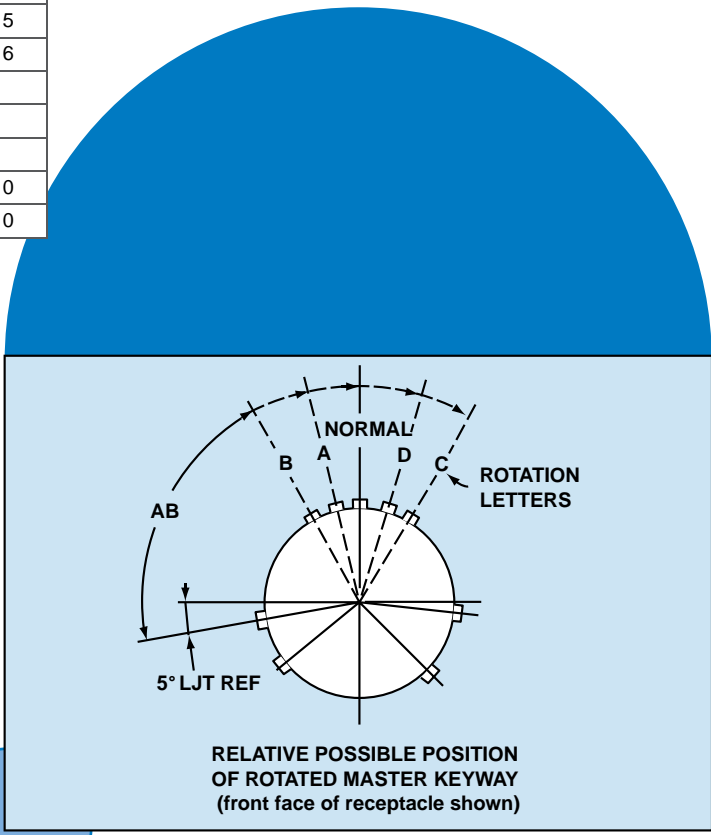
22992
Class 1

Back-Shell

Options
Others

FLJT Master Key/Keyway Rotation

Shell Size	AB Angle of Rotation (Degrees)				
	Normal	A	B	C	D
9	95	77	–	–	
11	95	81	67		109
	95	75		127	115
15	95	74	61	129	116
17	95	77	65	125	
19	95	77	65	125	
21	95	77	65	125	
	95	80	69	121	110
25	95	80	69	121	110



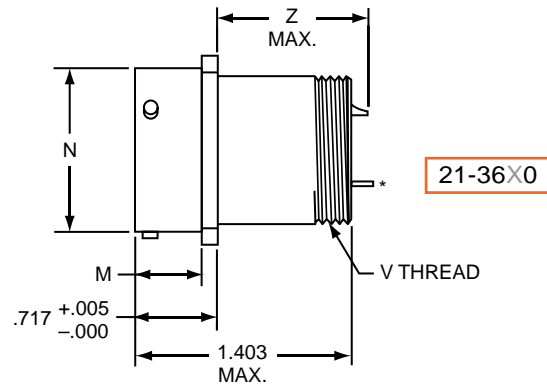
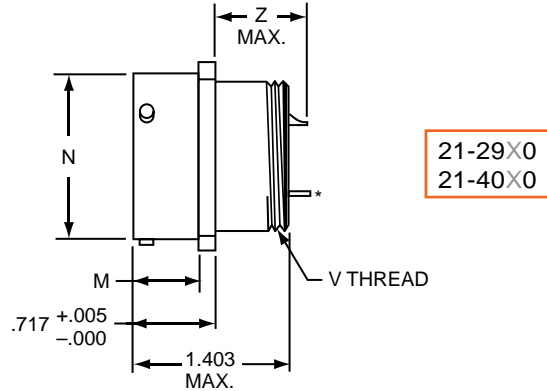
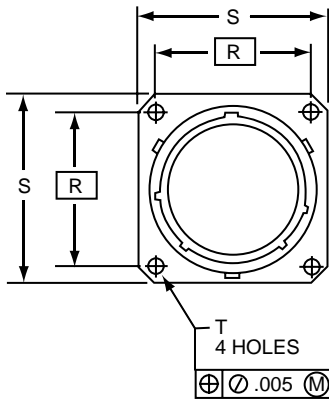
Rotations

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE SET	Type of Contact/ #
21	29	X	0	XX-XX	X
21	40	X	0	XX-XX	X
21	36	X	0	XX-XX	X



*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

MIN

Shell Size	M +.000 -.006	N Dia. +.001 -.005	R (TP)	S +.011 -.010	T Dia. ±.005	V Thread UNE-F-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
							Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
9											
11											
15											
17											
19											
21											
25											



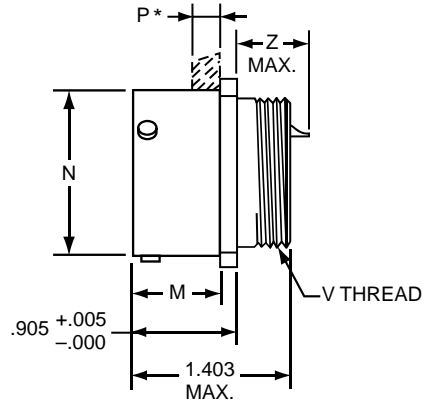
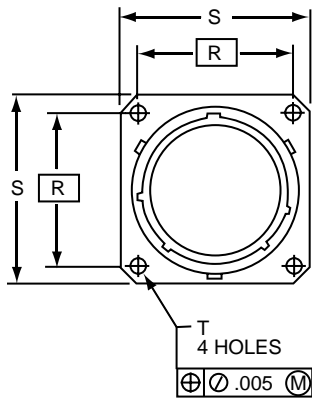
ACKNOWLEDGMENT

PART #

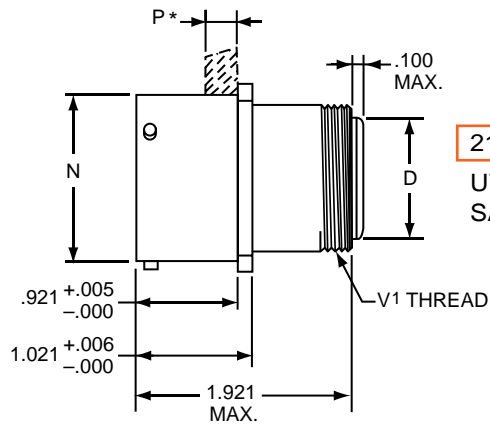
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SEAL	Type of Contact/
21	47	X	0	XX-XX	X
21	48	X	0	XX-XX	X

UTS (Crimp) Contact SAE AS39029/57



21-47X0



21-48X0

UTS (Crimp) Contact SAE AS39029/57

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

MIN

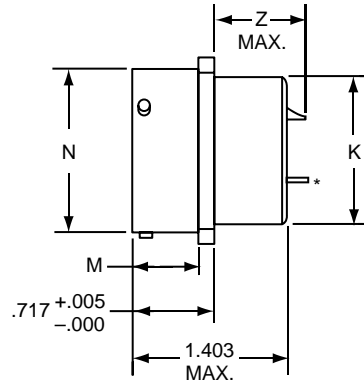
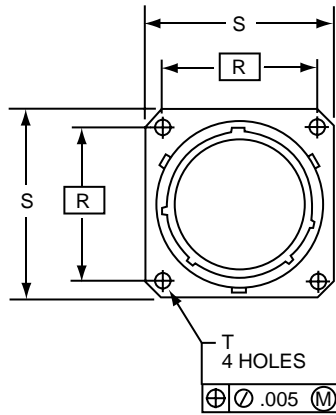
Shell Size	D Dia. ±.005	M +.000 - .006	N Dia. +.001 - .005	P Max. Panel Thickness	R (TP)	S +.011 - .010	T Dia. ±.005	V Thread UNEF-2A (Plated)	V' Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF Filters		
										Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.
9												
11												
15												
17												
19												
21												
25												

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

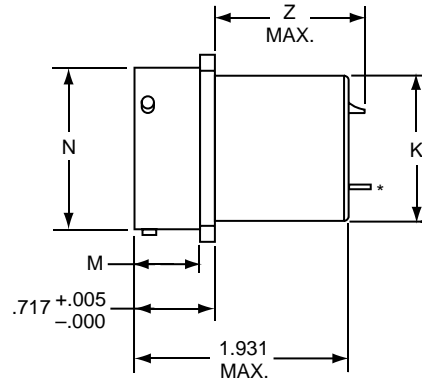
PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE SET	Type of Contact/ MFB
21	29	X	2	XX-XX	X
21	40	X	2	XX-XX	X
21	36	X	2	XX-XX	X



21-29X2
21-40X2



21-36X2

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

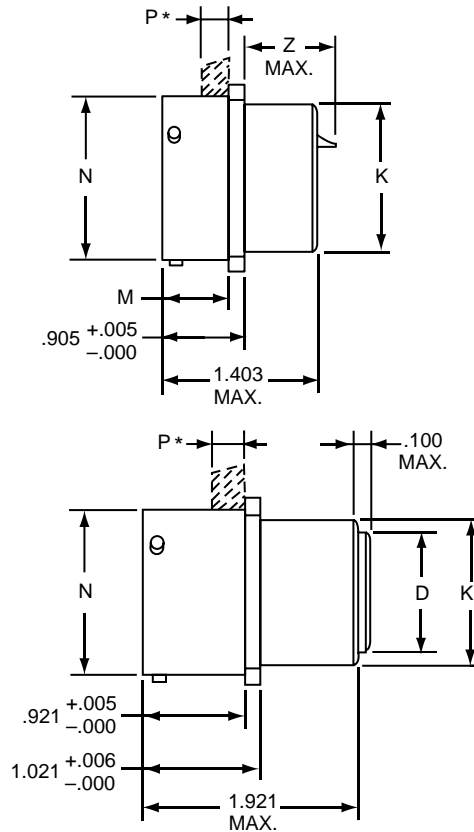
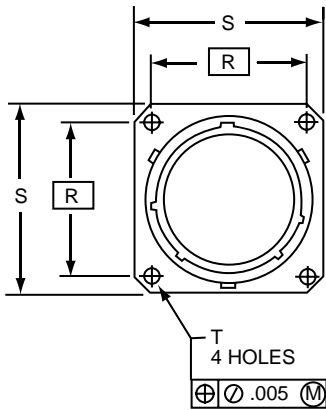
MIN

Shell Size	K Dia. +.001 - .006	M +.000 - .006	N Dia. +.001 - .005	R (TP)	S +.011 - .010	T Dia. ±.005	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
							Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
9											
11											
15											
17											
19											
21											
25											

ACKNEDTAMP

PART #	Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SAE CONTACT	Type of Contact/Shell
To complete, see how to order pages 278-280.	21	47	X	2	XX-XX	X
	21	48	X	2	XX-XX	X

UTS (Crimp) Contact SAE AS39029



21-47X2

21-48X2
UTS (Crimp) Contact
SAE AS39029

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shells

Options
Others

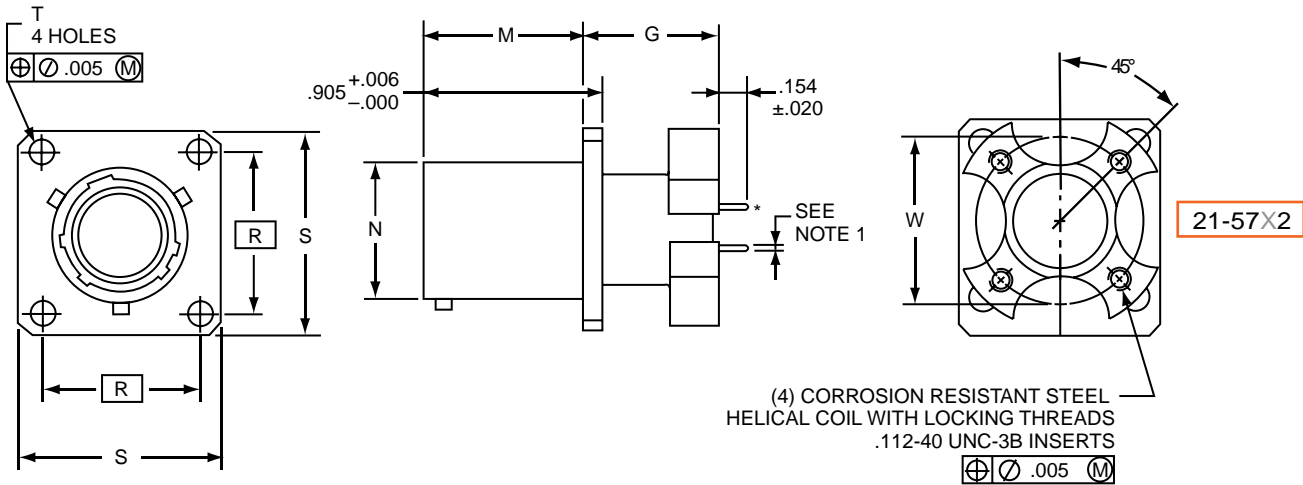
MIN

Shell Size	D Dia. ±.005	K Dia. +.000 / -.006	K' Dia. +.000 / -.007	M +.000 / -.006	N Dia. +.001 / -.005	P Max. Panel Thickness	R (TP)	S +.011 / -.010	T Dia. ±.005	SHORT SHELL VHF/UHF Filters		
										Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.
9												
11												
15												
17												
19												
21												
25												

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SEE DET	Type of Contact/
21	57	X	2	XX-XX	X



(4) CORROSION RESISTANT STEEL
HELICAL COIL WITH LOCKING THREADS
.112-40 UNC-3B INSERTS
 $\varnothing .005$ (M)

*Note 1. Standard Printed Circuit Termination diameter

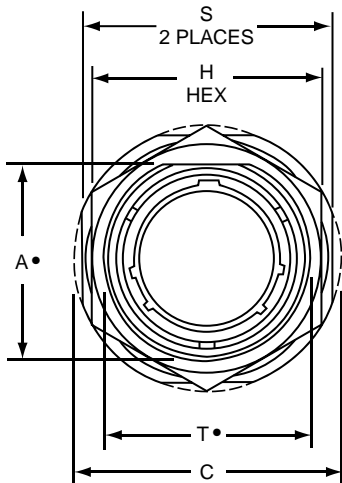
Contact size (AWG)	$\pm .002$
22	
20	
16	
12	

MIN

Shell Size	G $+ .006$ $- .005$	M $+ .000$ $- .005$	N Dia. $+ .001$ $- .005$	R (TP)	S $+ .011$ $- .010$	T Dia. $+ .004$ $- .003$	W
11							
15							
17							
19							
21							
25							

PART #
To complete, see how to order pages 278-280.

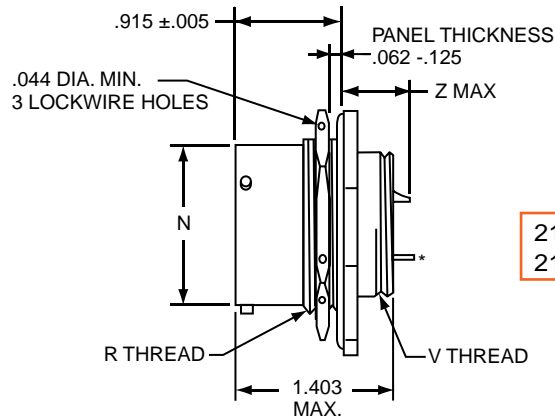
Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	29	X	7	XX-XX	X
21	40	X	7	XX-XX	X
21	36	X	7	XX-XX	X



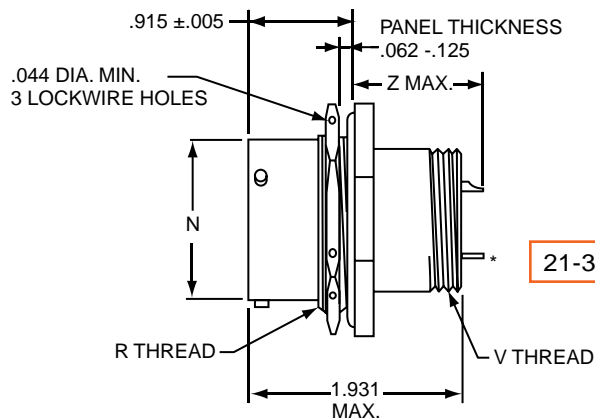
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup



21-29X7
21-40X7



21-36X7

Shell Size	A• Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	N Dia +.001 -.005	R Thread (Plated) Class -2A	S +.016 -.015	T• Dia. +.010 -.000	V Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters	
									Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 22 Contact Z Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
9					5.								
11					5.								
					5.								
15					5.								
17					5.								
19					5.								
21					5.								
					5.								
25					5.3								

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

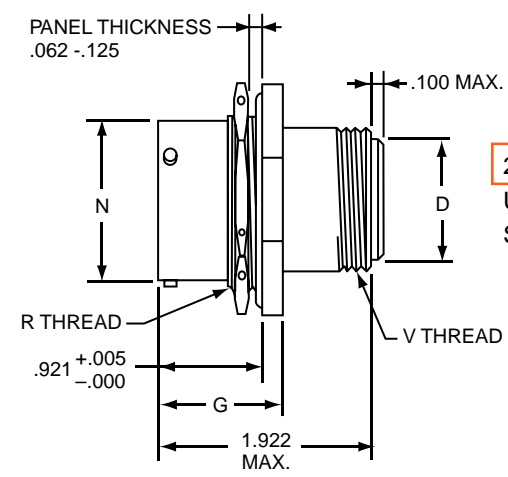
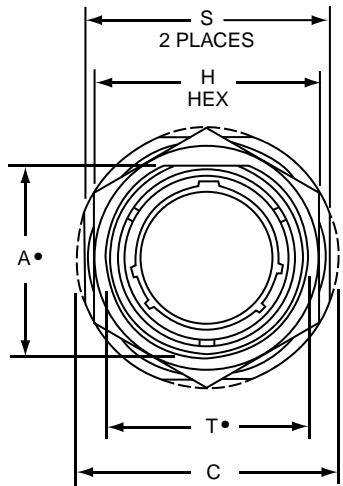
38999

PART # To complete, see how to order pages 278-280.

Filter Connector	Shell Finish	Shell Style	Type of Contact/
Connector Filter Type	Finish	Style	500

21	48	X	7	XX-XX	X
----	----	---	---	-------	---

UTS (Crimp) Contact SAE AS39029/57



21-48X7
UTS (Crimp) Contact
SAE AS39029/57

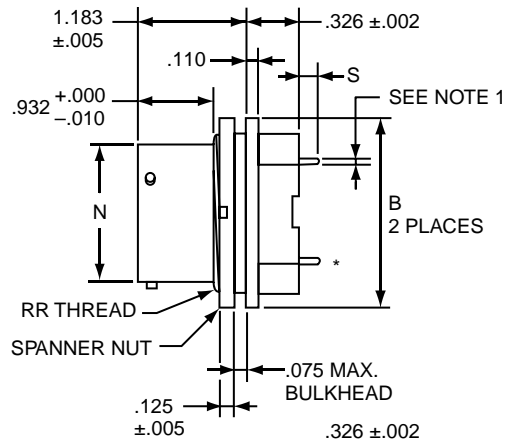
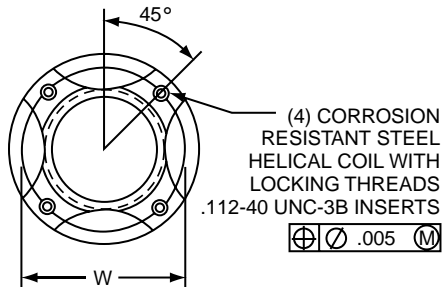
SEMI
MIN

Shell Size	A* Flat +0.00 -0.10	C Dia. +0.11 -0.10	D Dia. ±.005	G +0.06 -0.05	H Hex +0.17 -0.16	N Dia +0.01 -0.05	R Thread (Plated) Class -2A	S +0.16 -0.15	T* Dia. +0.10 -0.00	V Thread UNEF-2A (Plated)
9							5.			
11							5.			
							5.			
15							5.			
17							5.			
19							5.			
21							5.			
							5.			
25							5.3			

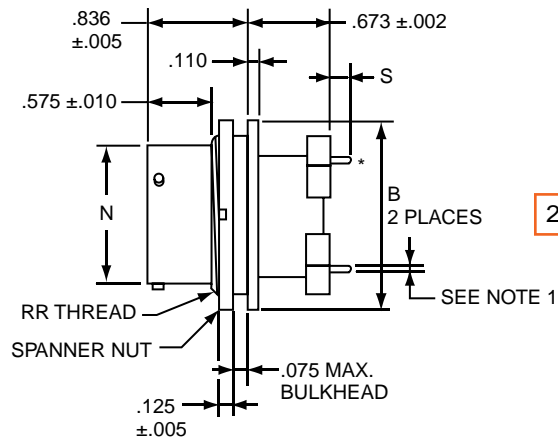
PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SEE REF	Type of Contact/SEE REF
21	57	X	4	XX-XX	X
21	57	X	7	XX-XX	X



21-57X4



21-57X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

MIN

Shell Size	B Dia. ±.005	N Dia. +.001 / -.005	S ±.020	W	RR Thread UNEF-2A
11					
15					
17					
19					
21					
25					

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

PART # To complete, see how to order pages 278.-280

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell	Type of Contact/
21	29	X	4	XX-XX	X

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

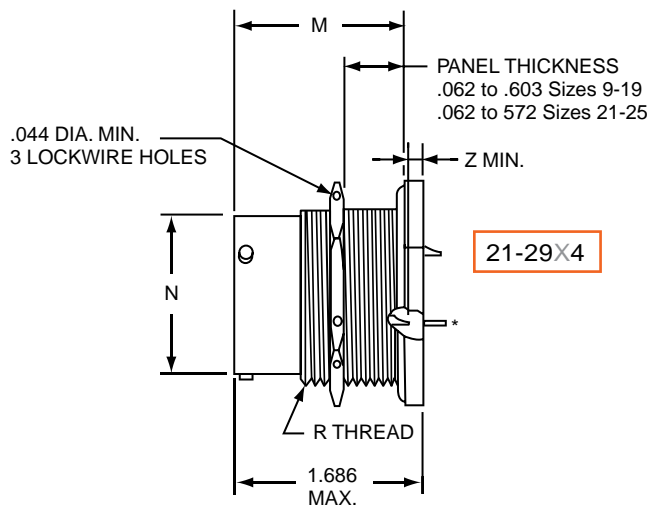
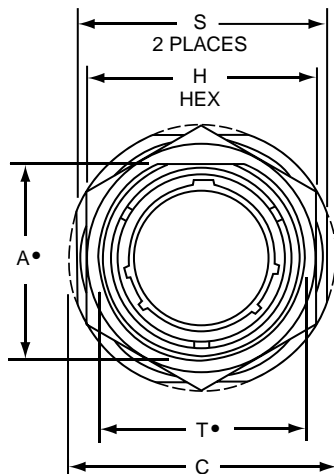
26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others



*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Standard

Standard

Standard

Standard MIN

Shell Size	A• Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	M	N Dia +.001 -.005	R Thread (Plated) Class -2A	S +.016 -.015	T• Dia. +.010 -.000	SHORT SHELL VHF/UHF Filters				
									Size 16 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	Size 20 Contact Z Max.	Size 22 Contact Z Max.	
9						5.							
11						5.							
						5.							
15						5.							
17						5.							
19						5.							
21						5.							
						5.							
25						5.3							



Aluminum

PART

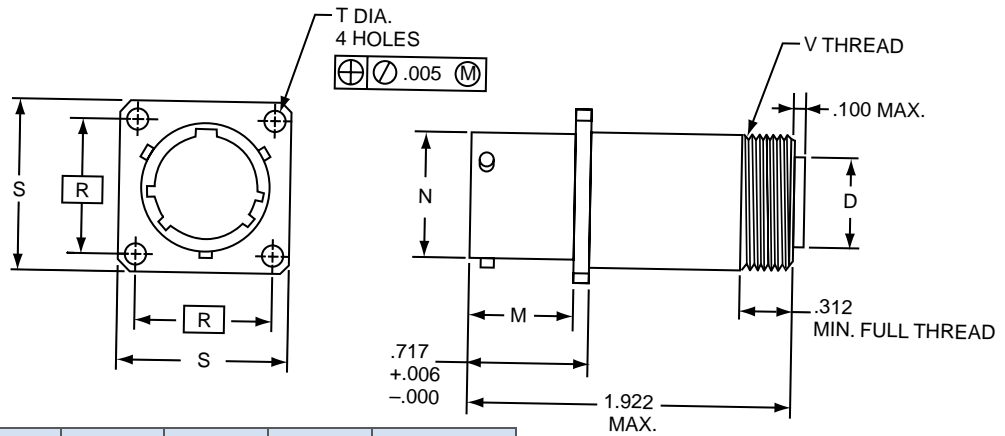
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Type of Contact/
21	65	X	0	XX-XX X
21	63	X	2	XX-XX X

UTS (Crimp) Contact SAE AS39029/57

21-65X0

UTS (Crimp) Contact
SAE AS39029/57



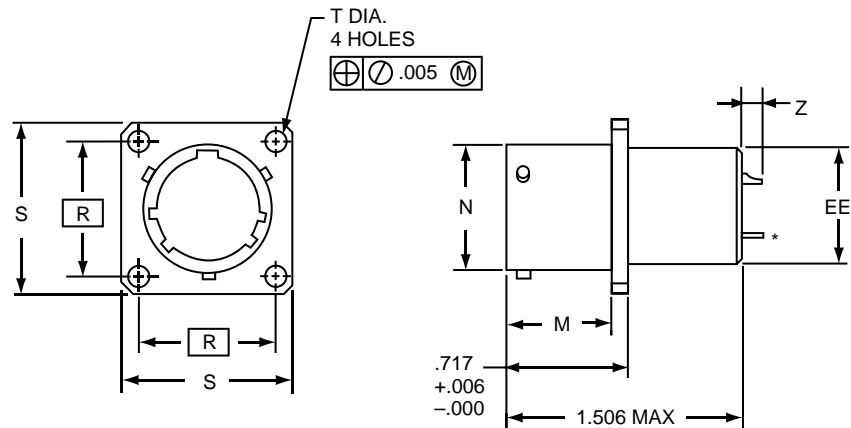
MIN

Shell Size	D Dia. ±.005	M +.000 - .005	N Dia. +.001 - .005	R (TP)	S +.021 - .020	T Dia. +.004 - .003	V Thread UNEF-2A
10							
12							
14							
16							
18							
20							
22							
24							

FSJT MIL-DTL-38999 Type



21-63X2



MIN

Shell Size	M +.000 - .005	N Dia. +.001 - .005	R (TP)	S +.021 - .020	T Dia. +.004 - .003	EE +.001 - .005	Z Max.			
							Size 16 Contact	Size 20 Contact	Size 16 or 16 & 20 Contacts	Size 22 Contact
10										
12										
14										
16										
18										
20										
22										
24										

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Amphenol Aerospace for

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART #

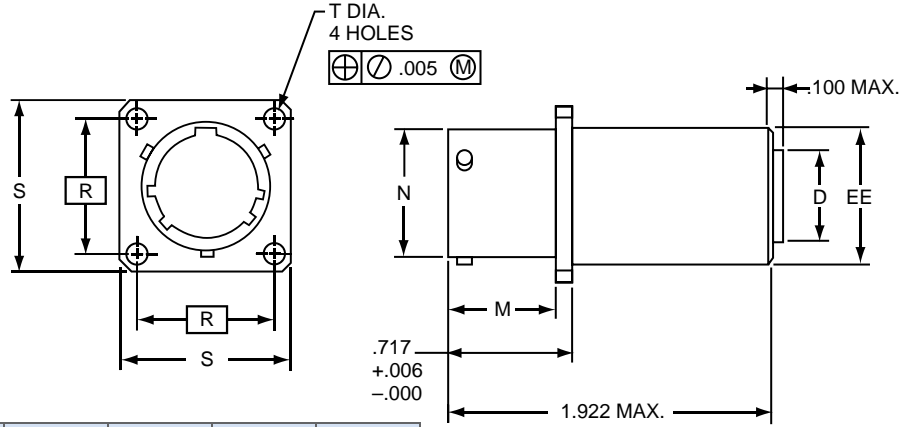
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	65	X	2	XX-XX	X
21	63	X	7	XX-XX	X

UTS (Crimp) Contact SAE AS39029/57

21-65X2

UTS (Crimp) Contact SAE AS39029/57



MIN

Shell Size	D Dia. ±.005	M +.000 -0.005	N Dia. +.001 -0.005	R (TP)	S +.021 -0.020	T Dia. +.004 -0.003	EE Dia. +.001 -0.005
10							
12							
14							
16							
18							
20							
22							
24							

FSJT MIL-DTL-38999

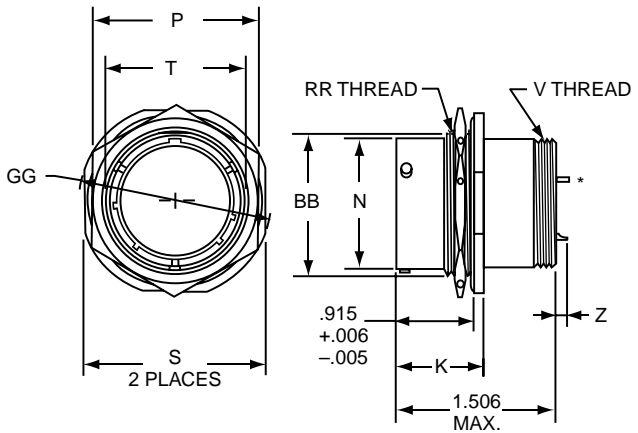
CONNECTOR

21-63X7

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup
Amphenol Aerospace for



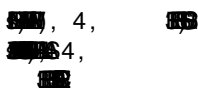
MIN

Shell Size	K +.006 -0.005	N Dia. +.001 -0.005	P Hex	S ±.016	T* +.010 -0.000	V Thread UNEF Class 2A	Z ±.020	BB* +.000 -0.010	GG Max.	RR Thread UNEF Class 2A	SS +.001 -0.016
10											
12											
14											
16											
18											
20											
22											
24											

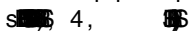
FBL MIL-DTL-38999, Series IV Circular Filter Connectors



Components designed to meet the severe mechanical and environmental requirements of MIL-DTL-38999 Series III are now available to Series IV users. Modifications of the connector are available with EMP protection, incorporating MOV's, diodes or a combination of both.



s Scoop-proof pins provide contact protection



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

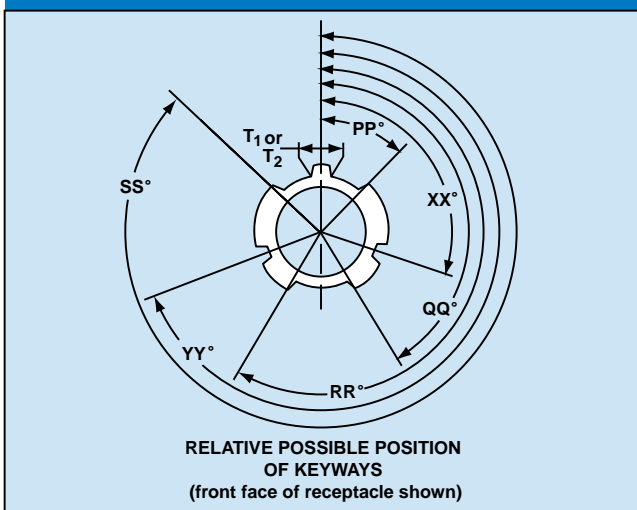
Options
Others

FBL Master Key/Keyway Rotation

Shell E	FBL				ANZ	
	PP°	QQ°	22	SS°	SE Contact T ₁	Pin Contact T ₂
11						
15						
17						
19						
21						
25						

Polarity Dimensions

FBL	88	99
.	110°	250°
A	100°	260°
	90°	270°
C	80°	280°
D	70°	290°
+	120°	255°



Rotations



38999

III

HD

Dualok

II

I

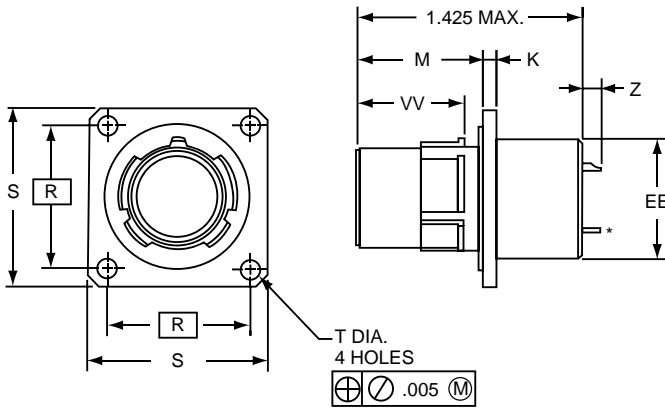
SJT

Accessories

Aquacon

Herm/Seal

PCB

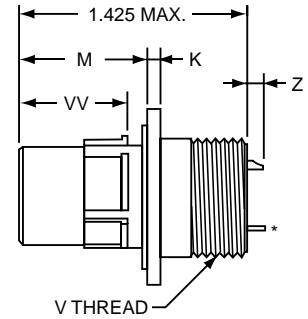


BOX MOUNT
21-61X2XX-XXX

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup
Amphenol Aerospace for



WALL MOUNT
21-61X0XX-XXX

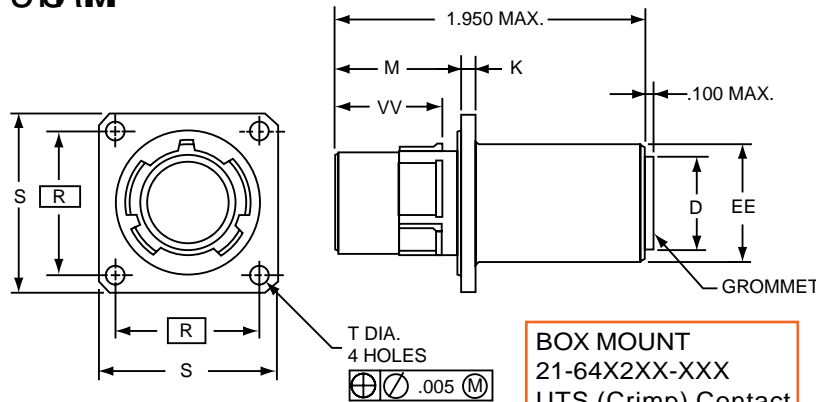
Shell Size	K ±.010	M ±.020	R (TP)	S +.021 - .020	T Dia. +.004 - .003	V Thread (Plated) -.006	EE Dia. +.001 - .005	VV ±.003	Z Max.				
									Size 16 Contact	Size 20 Contact	Size 16 or 16 & 20 Contacts	Size 22 Contact	
11						- 8 G 2							
15						- 8 G 2							
17						- 8 G 2							
19						- 8 G 2							
21						- 8 G 2							
25						- 8 G 2							

FBL – MIL-DTL-38999 Series IV

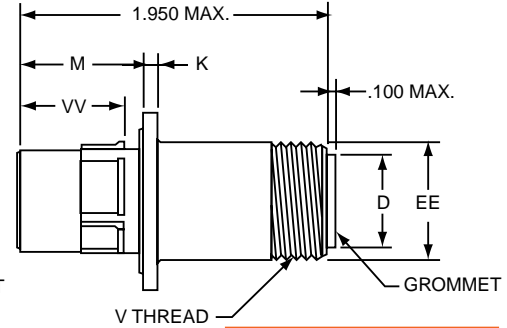
PART # To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Type of Contact/
21	64	X	2	XX-XX X

543MP



BOX MOUNT
21-64X2XX-XXX
UTS (Crimp) Contact
MIL-C-39029/57



WALL MOUNT
21-64X0XX-XXX
UTS (Crimp) Contact
MIL-C-39029/57

Shell Size	D Dia. ±.005	K ±.010	M ±.020	R (TP)	S +.021 - .020	T Dia. +.004 - .003	V Thread (Plated) -.006	EE Dia. +.001 - .005	VV ±.003
11							- 8 G 2		
15							- 8 G 2		
17							- 8 G 2		
19							- 8 G 2		
21							- 8 G 2		
25							- 8 G 2		

FPT – MIL-DTL-26482 Series Circular Filter Connectors



The Amphenol® FPT Series combines the unique design features of the miniature PT Series with an EMI filter.



FPT

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts Connectors Cables

**EMI Filter
Transient**

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

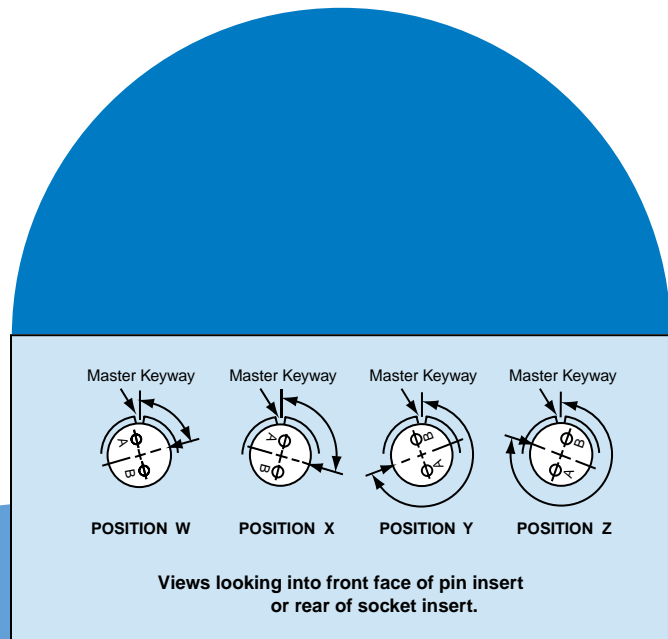
22992
Class 1

Back-Shell

Options
Others

FPT Alternate Positions

Insert Arrangements	Degrees			
	W	X	Y	Z
10-5	45	151	180	270
10-6	90	-	-	-
10-98	90	180	240	270
	-	-	180	-
12-8	90	112		292
12-10	60	155	270	295
12-98	61		189	
14-12		90	-	-
14-18	15	90	180	270
14-19		165		-
16-8	54	152	180	
16-26	60	-	275	
	85		222	265
20-41	45	126	225	-
22-41		-	-	-
22-55		142	226	
24-61	90	180	270	



Rotations

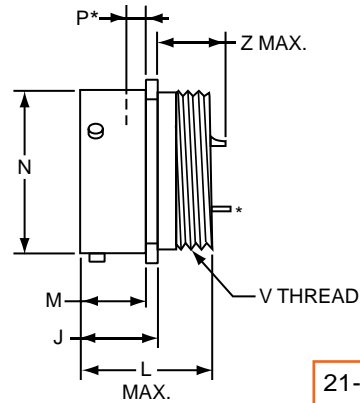
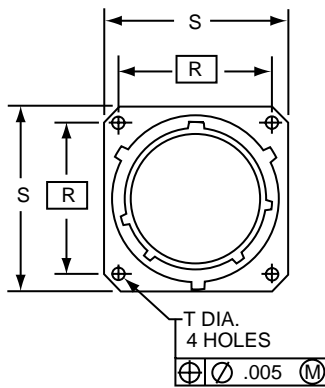


- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

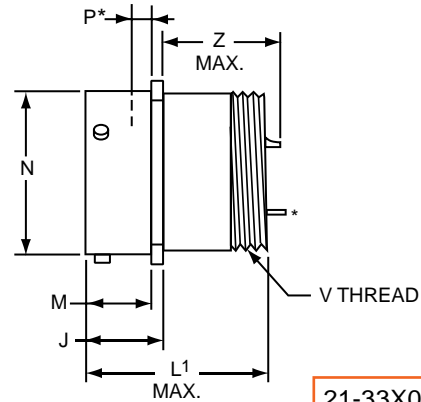
PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Plating	Type of Contact/Shell
21	20	X	0	XX-XX	X
21	31	X	0	XX-XX	X
21	33	X	0	XX-XX	X



21-20X0XX-XXX
21-31X0XX-XXX



21-33X0XX-XXX

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Amphenol Aerospace for

MIN

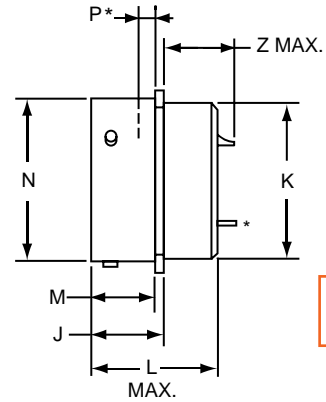
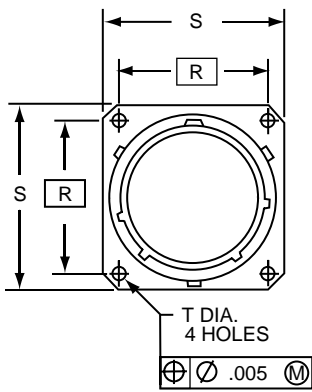
Shell Size	J +.021 -.010	M +.010 -.000	N Dia +.001 -.005	P* Max.	R (TP)	S +.011 -.010	T Dia. ±.005	V Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters			
									L Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	L1 Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	
8															
10															
12															
14															
16															
18															
20															
22															
24															



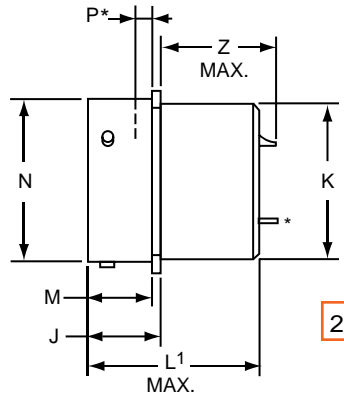
PART #

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SEAL	Type of Contact/
21	20	X	2	XX-XX	X
21	31	X	2	XX-XX	X
21	33	X	2	XX-XX	X



21-20X2XX-XXX
21-31X2XX-XXX



21-33X2XX-XXX

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

Amphenol Aerospace for

MIN

Shell Size	J +.021 -.010	K Dia. +.011 -.000	M +.010 -.000	N Dia +.001 -.005	P* Max.	R (TP)	S +.011 -.010	T Dia. ±.005	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters			
									L Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	L ¹ Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	
8															
10															
12															
14															
16															
18															
20															
22															
24															

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

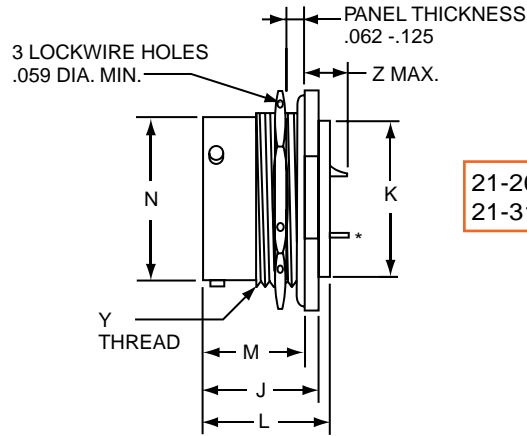
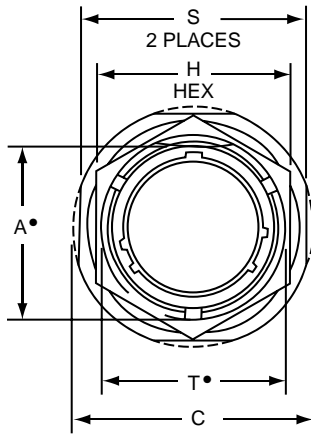
Options
Others

38999

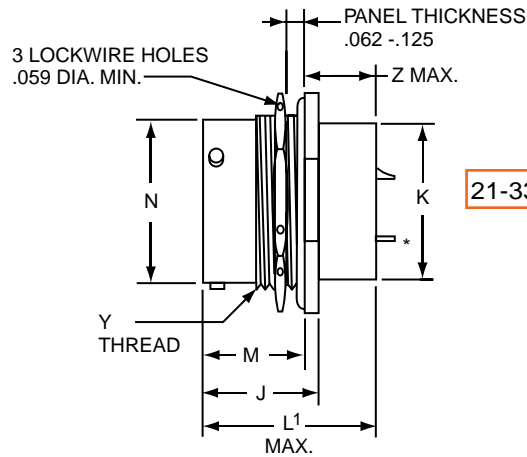
PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Shell	Type of Contact/
21	20	X	7	XX-XX	X
21	31	X	7	XX-XX	X
21	33	X	7	XX-XX	X



21-20X7XX-XXX
21-31X7XX-XXX



21-33X7XX-XXX

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup

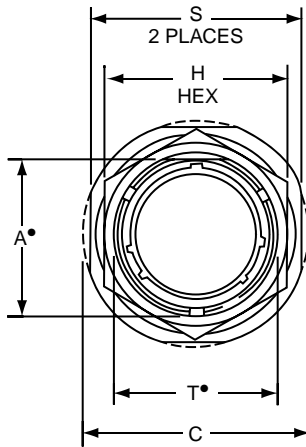
Amphenol Aerospace for

MIN

Shell Size	A* Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	J +.006 -.005	K Dia. +.011 -.000	M ±.005	N Dia +.001 -.005	S ±.010	T* Dia. +.010 -.000	Y Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters		
											L Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	L' Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
8																
10																
12																
14																
16																
18																
20																
22																
24																

PART #
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	31	Type of Contact/
21	20	X	4	XX-XX	X
21	31	X	4	XX-XX	X
21	33	X	4	XX-XX	X



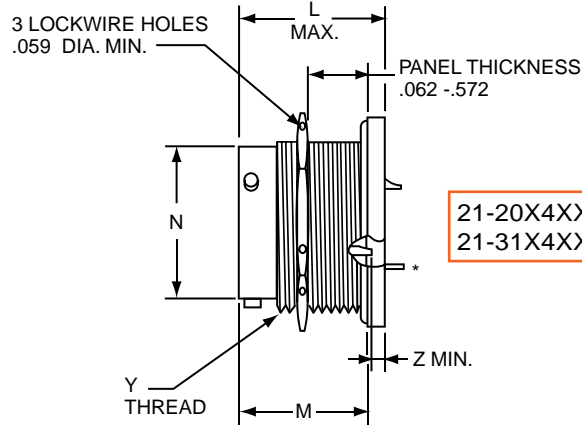
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

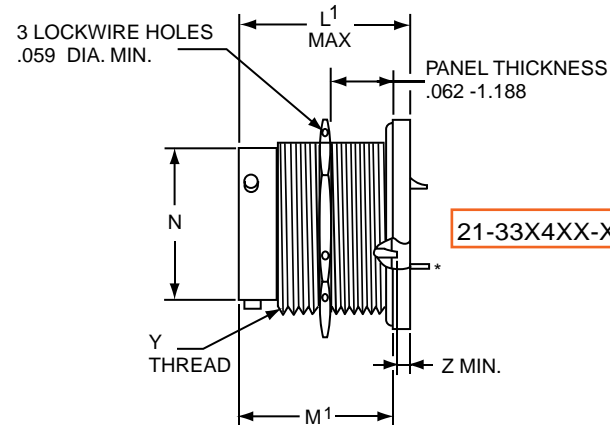
s Standard contact termination is Solder Cup

Amphenol Aerospace for

MIN



21-20X4XX-XXX
21-31X4XX-XXX



21-33X4XX-XXX

Shell Size	A* Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	M +.016 -.015	M' +.016 -.015	N Dia +.001 -.005	S +.011 -.010	T* Dia. +.010 -.000	Y Thread UNEF-2A (Plated)	SHORT SHELL VHF/UHF/MF Filters			LONG SHELL HF Filters		
										L Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.	L' Max.	Size 20 Contact Z Max.	Size 16 or 16 & 20 Contacts Z Max.
8															
10															
12															
14															
16															
18															
20															
22															
24															

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

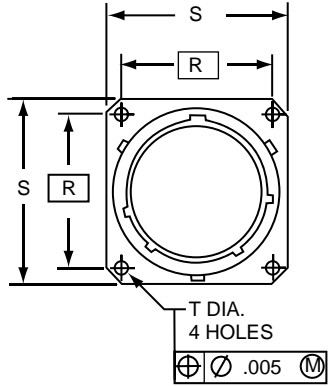
5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

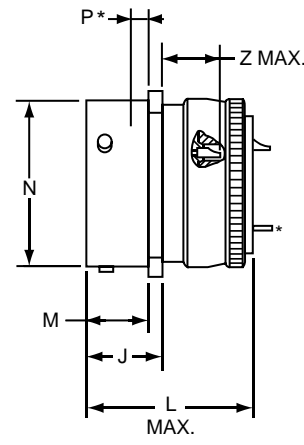
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #
To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	SE	Type of Contact/
21	22	X	0	XX-XX	X
21	32	X	7	XX-XX	X

21-22X0XX-XXX



MIN

Shell Size	J +.021 -.010	M +.010 -.000	N Dia +.001 -.005	P* Max.	R (TP)	S +.011 -.010	T Dia. ±.005	SHORT SHELL VHF/UHF/MF Filters	
								L Max.	Size 20 Contact Z Max.
8									
10									
12									
14									
16									
18									
20									
22									
24									

*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup
Amphenol Aerospace for

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

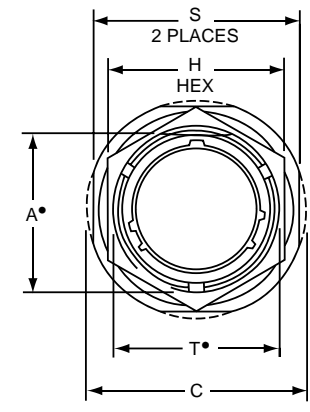
Options Others

FPTE

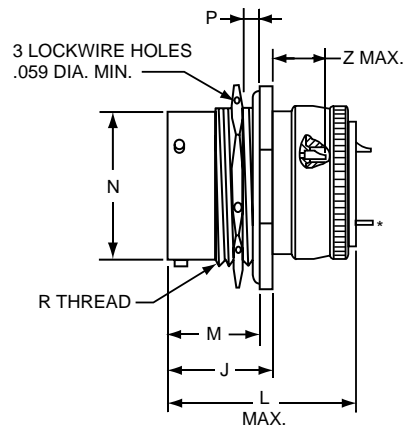
*Note 1. Standard Printed Circuit Termination diameter

Contact size (AWG)	±.002
22	
20	
16	
12	

21-22X7XX-XXX



MIN



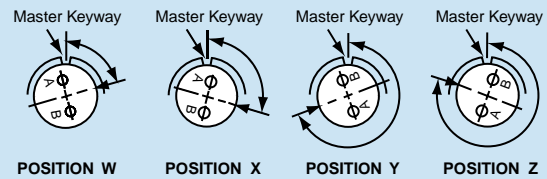
s Standard contact termination is Solder Cup
Amphenol Aerospace for

Shell Size	A* Flat +.000 -.010	C Dia. +.011 -.010	H Hex +.017 -.016	J +.006 -.005	M ±.005	N Dia. +.001 -.005	P Panel Thickness		R Thread UNEF-2A (Plated)	S ±.010	T* Dia. +.010 -.000	SHORT SHELL VHF/UHF Filters	
							Max.	Min.				L Max.	Size 20 Contact Z Max.
8													
10													
12													
14													
16													
18													
20													
22													
24													

The "AN" Filter Connector is designed in configurations intermateable and intermountable with MIL-DTL-5015* connectors and provides electromagnetic interference protection for critical circuits.



FAN



Views looking into front face of pin insert or rear of socket insert.

3A VNS DPEC

S 5H

S 1M

K

S

C

M E A E

C

Degrees				
W	X	Y	Z	
80	110	250	280	
16-7	20-22	22-29	24-17	28-16
18-5	22-6		24-20	28-17
18-9	22-12		24-21	28-19
	22-14	24-1	24-28	28-20
18-14	22-15		28-1	28-21
20-7	22-16	24-4	28-4	
20-8	22-17	24-5	28-8	
20-9	22-18	24-6	28-9	2
20-12	22-19	24-7	28-10	40-AS
20-14	22-21	24-12	28-11	40-AT
20-16	22-24	24-14	28-14	40-AU
20-20	22-25	24-16	28-15	

CEB

S

Insert Arrangement	Degrees			
	W	X	Y	Z
10SL-4				
3	70	145	215	290
14S-2		120	240	
14S-5		110		
14S-7	90	180	270	
14S-9	70	145	215	290
16-9		110	250	
16-10	90	180	270	
16-11		110	250	
		110	250	
16S-1	80			280
16S-4		110	250	
16S-5	70	145	215	290
16S-6	90	180	270	
16S-8		170	265	
18-1	70	145	215	290
		110	250	
18-4		110	250	
18-8	70			290
18-10		120	240	
18-11		170	265	
18-12	80			280
18-15		120	240	
18-20	90	180	270	
18-22	70	145	215	290
18-29	90	180	270	
	70	145	215	290

-,4, SUPERSEDES-,

Insert Arrangement	Degrees			
	W	X	Y	Z
20-4	45	110	250	
20-5		110	250	
20-6	70	145	215	290
20-15	80			280
20-17	90	180	270	
20-18		110	250	
20-19	90	180	270	
20-21		110	250	
		110	250	
20-24		110	250	
20-27		110	250	
20-29	80			280
22-1		110	250	
22-2	70	145	215	290
22-4		110	250	
22-5		110	250	
22-8		110	250	
22-9	70	145	215	290
22-10		110	250	
22-11		110	250	
		110	250	
22-20		110	250	
22-22		110	250	
			250	
22-27	80		250	280
22-28	80			280
	20			
24-2	80			280
24-9		110	250	
24-10	80			280
24-11		110	250	
24-22	45	110	250	
24-27	80			280
28-2		110	250	
	70	145	215	290

Rotations

Insert Arrangement	Degrees			
	W	X	Y	Z
28-5		110	250	
28-6	70	145	215	290
28-7		110	250	
28-12	90	180	270	
28-18	70	145	215	290
28-22	70	145	215	290
9	45	110	250	
	70	145	215	290
		110	250	
	80	125		280
	80	125		280
		110	250	280
	45	110	250	
	60	120		
	80			
	80	100	110	250
	70	145	215	290
	70	145	215	290
		120	240	
		110	250	
	80	125		280
	80	125		280
	90	180	270	
	60	125	245	
	65			
40-1	65			
40-5				270
40-9	65	125	225	
40-10	65	125	225	
	70			290
40-AD	45			
		74	285	
40-AP		110	250	
6	90	180	270	

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Cramp Rear
Release
Matrix

22992
Class 1

Back-
Shells

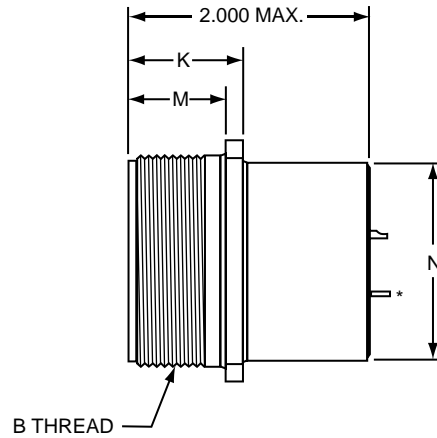
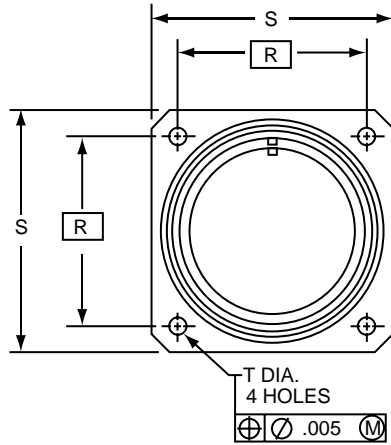
Options
Others

38999

PART

To complete, see how to order pages 278-280.

Filter Connector	Connector Filter Type	Shell Finish	Shell Style	Size	Type of Contact/
21	26	X	2	XX-XX	X



*Note 1. Standard Printed Circuit Termination diameter

21-26X2XX-XXX

Contact size (AWG)	±.002
22	
20	
16	
12	

s Standard contact termination is Solder Cup
Amphenol Aerospace for

OE),4, SUPERSEDES-),

Shell Size	B Thread Class 2A (Plated)	M +.010 - .000	K +.020 - .010	N Dia. +.010 - .000	R TP	S ±.031	T Dia. +.004 - .002
8S	5.						
10S	5.						
10SL	5.						
12S	5.						
12	5.						
14S	5.						
14	5.						
16S	5.						
16	5.						
18	5.						
20	.						
22	.						
24	.						
28	.3						
	.3						
	5.						
40	5.						

V
 -)
 N
 ECS

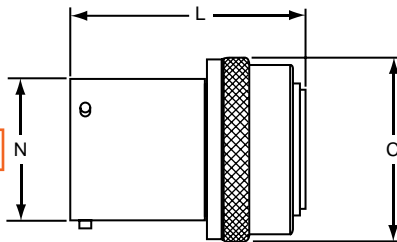
Features of the Amphenol Adapter include:

in circulars

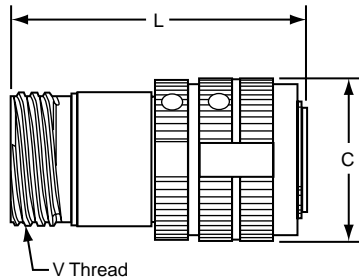
s
 s
 s

attached to either the cable harness or the

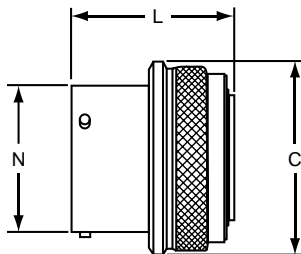
FPT Adapter
21-900075-XXX



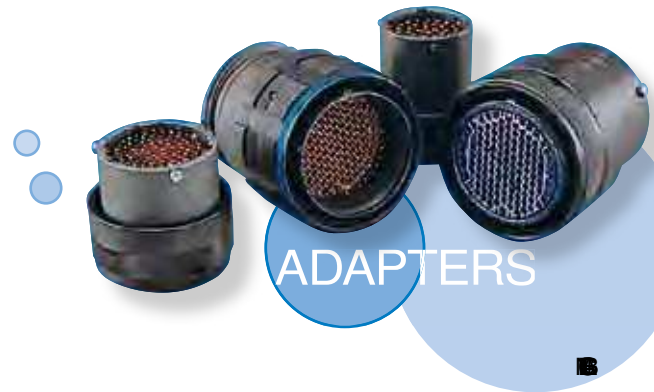
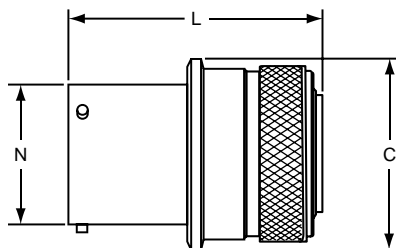
FTV Adapter
21-900529-XXX



FJT Adapter
21-900393-XXX



FLJT Adapter
21-900423-XXX



ADAPTERS

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle

- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1

- Back-Shell's
- Options Others

FPT Shell Size	C Dia. Ref.	N Dia. +.001 -0.005	L Max.
8			
10			
12			
14			
16			
18			
20			
22			
24			

FTV Shell Size	C Dia. Ref.	V Thread 0.1P-0.3L-TS Class 2A	L Max.
9			
11			
15			
17			
19			
21			
25			

FJT Shell Size	C Dia. +.011 -0.010	N Dia. +.001 -0.005	L Max.
8			
10			
12			
14			
16			
18			
20			
22			
24			

FLJT Shell Size	C Dia. Ref.	N Dia. +.001 -0.005	L Max.
9			
11			
15			
17			
19			
21			
25			

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

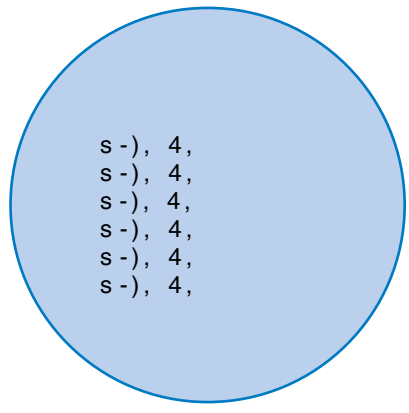
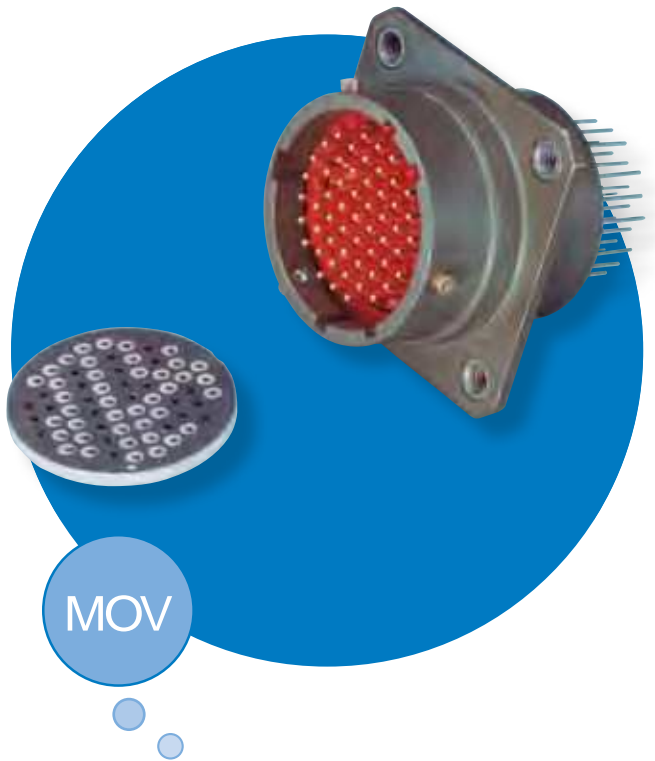
22992 Class L

Back-Shells

Options Others

Features & Benefits:

- Increased reliability
- The Amphenol®



M.O.V. PERFORMANCE CHARACTERISTICS

Part Number	Contact Count	AMMUTATING				PERFORMANCE						AMMUTATING		
		Continuous		Transient		-IN			-AX			Capacitance		
		DC	2-3	3	Current	6c	Ip	6c	Ip	-IN	-AX	25°C	125°C	
		6.56	7	3	Amperes	SD	SD	SD	SD	SD	SD	μA	μA	
F8	22				250					10				
	20	8				12	14	17	28	10	1000	2500	5	50
	16									20				
F14	22				250					10				
	20	14	10				22	25	40	10	800	2000	5	50
	16									20				
	22				250					5				
	20	31	22	2			39	45	80	10	400	1400	5	50
	16			2						20				
	22				250					5				
	20	38	27	2		42	47	55	90	10	200	1000	5	50
	16									20				
F45	22				250					5				
	20	45					59	68	100	10	200	850	5	50
	16									20				

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class I

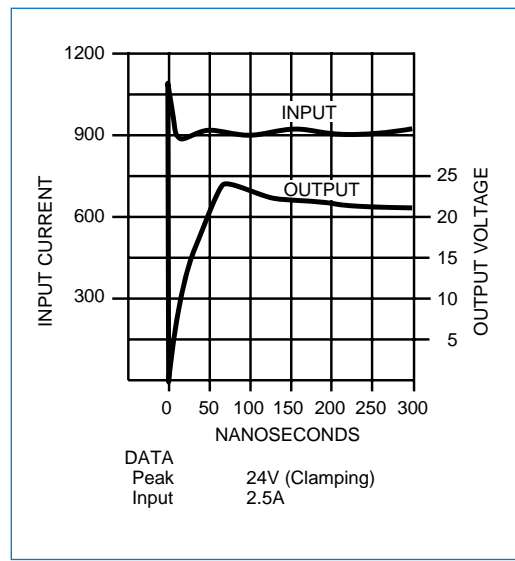
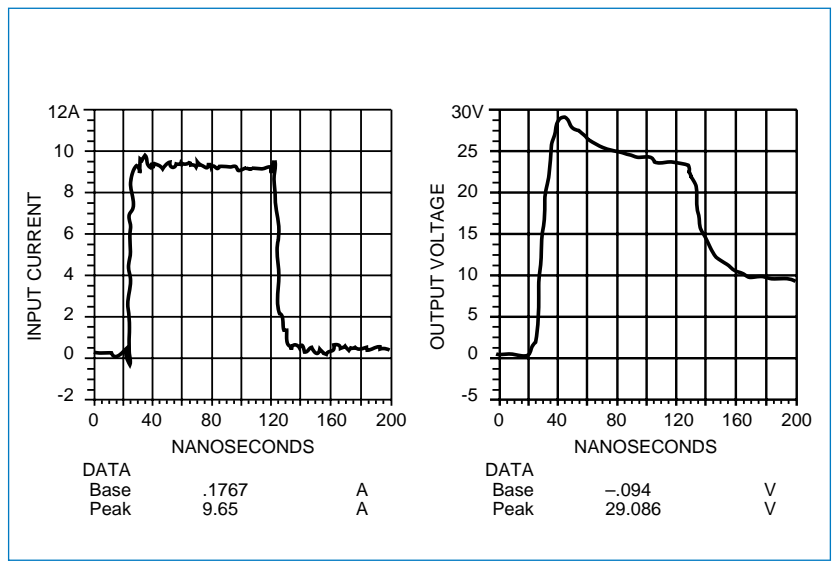
Back-
Shells

Options
Others

34

6

6



38999

Features & Benefits:

- IAN 50
- S
- 630
- S
- S
- Increased reliability
- A
- S
- -, 3 48 486
- S
- S



Diode Diode Connector and Adapter

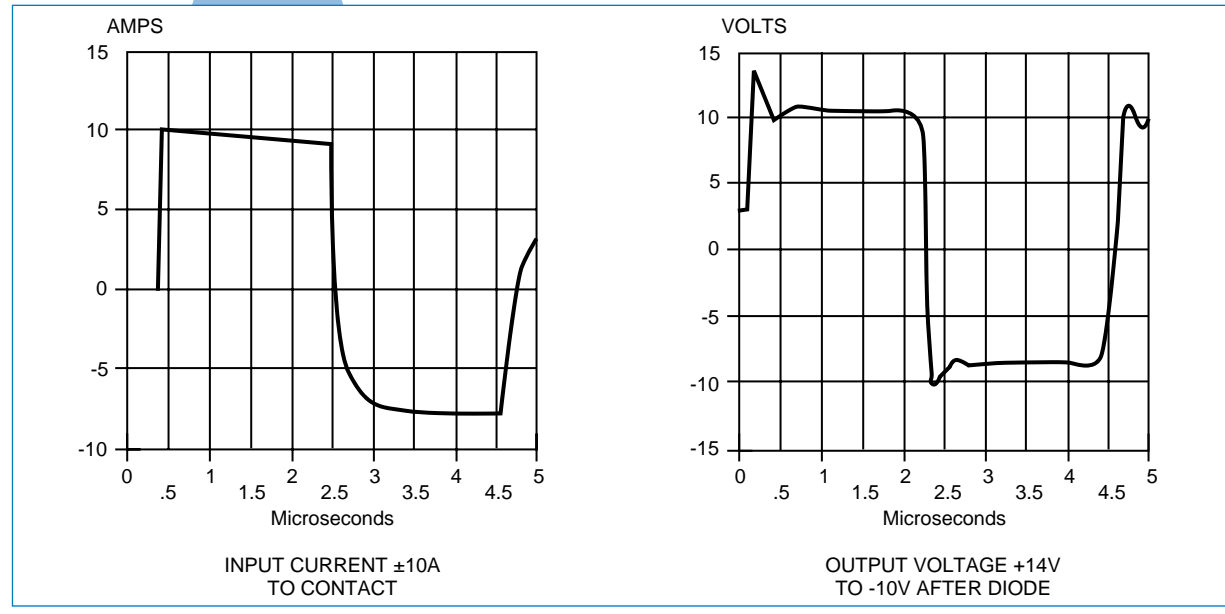


Close-up View of Diode Contact

- s), 4,
- s), 4,
- s), 4,
- s), 4,
- s), 4,
- s), 4,

Diode

DIODE CONTACT PULSE TEST, ±5.8 DIODE



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contact Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

STANDARD DIODE CONNECTOR CHARACTERISTICS AT 25°C

Stand-off Voltage † (VDC)	Max. Capacitance* (pf)	Breakdown Voltage at 1 mA (VDC)	Max. Clamping Voltage (8 x 20µ sec. pulse)	Leakage Current at Stand-off Voltage (µA)	Power Capability † 20µs Exp. Impulse (Peak) (Watts)
	1600	∅		<100	1000
	1000	∅		<150	1000
	750	∅		<10	1000
	750	∅		<5	1000
	1500	∅		<5	1000
	500	∅		<1	1000
	1100	∅		<1	1000
	500	∅		<1	1000
	750	∅		<1	1000
n	750	n ∅	n	<1	1000
	500	∅		<1	1000
	600	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000
	500	∅		<1	1000

LARGE

REVERSE
FOR FORWARD

** This device only measured at 10ma

o

MINIMUM

REVERSE

CONNECTIONS



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

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- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

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ESA

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Performance Characteristics

			SD
AXM00000	NEER		
			10 ¹⁰ ohms minimum
			Less than 2 pf
	AXM00000		2E
		600 800	10
			SD
	EMERSON X		CS
			SD
			SD
			1 Ampere
			-40°F to 150°F +D +

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III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
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EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others



3, 4, 5

What is a Faraday Cage?

A Faraday Cage is a shielded enclosure that blocks out electromagnetic interference (EMI) and electrostatic discharge (ESD).

The Amphenol ESD Protected Connectors are designed to provide a Faraday Cage for the connector contacts. This design eliminates the need for discrete components such as capacitors and diodes, which are often used to protect against ESD. The connector housing is made of a conductive material that provides a continuous shield around the contacts, preventing ESD from reaching the sensitive internal components.

The Amphenol® ESD Protected Connectors

The Amphenol ESD Protected Connectors have a

design that eliminates the need for discrete components such as capacitors and diodes. This design provides a continuous shield around the contacts, preventing ESD from reaching the sensitive internal components.

eliminates the need for discrete components such as capacitors and diodes.

AMPHENOL
AEROSPACE

MPHND HASMOPHBAANBER
CONREVORRESECOEDENM

SEGE 3

SEGE

SEGE

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SEGE

What is Electrostatic Discharge (ESD)?

ESD is a sudden flow of electricity between two electrically charged objects caused by contact, an induced electric field, or dielectric polarization. Static electricity is one form of ESD. ESD can be a significant problem for electronic devices and systems. It can cause damage to sensitive components, leading to system failure. Amphenol ESD Protected Connectors are designed to prevent ESD from reaching the sensitive internal components of the connector.

Amphenol MIL-DTL-26482, Series 2, Matrix[®]



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s Design Characteristics, Customer Options	333
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TABLE	



MIL-DTL-26482 Series 2, Matrix[®] Typical Markets:

Amphenol
Aerospace

MIL-DTL-26482, Series 2, Matrix® Bayonet Coupling Connectors



Amphenol Aerospace offers the Matrix® Product line of MIL-DTL-26482*, Series 2 connectors.

DESIGN CHARACTERISTICS

- s **REDACTED**
- s **REDACTED** 6 2-3 at sea level
- s Quick positive coupling assured by 3 point bayonet coupling system
- s **REDACTED**
- s **REDACTED**
- s Insertion and removal of contacts from the rear of the connector assures no damage to the front that might affect the sealing characteristics

s **REDACTED** tool for contact insertion and removal

- s **REDACTED** 3 **REDACTED**
- s **REDACTED** n) **REDACTED**
- s **REDACTED**, 4,
- s **REDACTED**
- s **REDACTED**
- s range of fluids

- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**

CUSTOMER OPTIONS

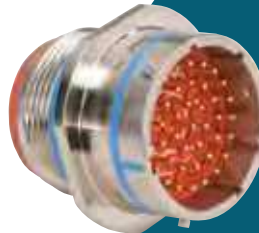
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED**
- s **REDACTED** AD
- s 34 insert arrangement patterns available, accommodating from a minimum of 3 to a maximum of 55 circuits
- s Alternate positioning available

- s **REDACTED**
- s **REDACTED**
- s **REDACTED**

- s **REDACTED**, 4, **REDACTED**),
- s **REDACTED** 3 3 **REDACTED**),



- 3
REDACTED
REDACTED



- 3 cable connecting receptacle



- 3
REDACTED



- 3 straight plug
- 3 **REDACTED** fingers

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class I

Back-Shell
Shells

Options
Others

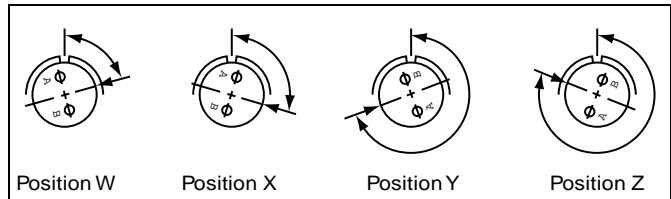
38999

INSERT ARRANGEMENTS

Insert Arrangement	Service Rating	Total Contacts	Contact Size		
			12	16	20
8-33	I	3			3
8-98	I	3			3
10-6	I	6			6
12-3	II	3		3	
12-8	I	8			8
12-10	I	10			10
14-4	I	4	4		
14-5	II	5		5	
14-9	I	9	4		5
14-12	I	12		4	8
14-15	I	15		1	14
14-18	I	18			18
14-19	I	19			19
16-8	II	8		8	
16-23S	I	23		1	22
16-26	I	26			26
18-8	I	8	8		
18-11	II	11		11	
18-30	I	30		1	29
18-32	I	32			32
20-16	II	16		16	
20-24S	I	24			24
20-39	I	39		2	37
20-41	I	41			41
22-12	I	12	12		
22-19S	I	19	19		
22-21	II	21		21	
22-32S	I	32			32
22-41	I	41		14	27
22-55	I	55			55
22-95	I	32	6		26
24-19S	II	19	19		
24-31	I	31		31	
24-61	I	61			61

ALTERNATE ROTATIONS OF INSERT

use of [redacted] arrangement, alternate rotations are available as indicated in [redacted]



View looking into front face of pin insert or rear of socket insert.

Insert Arrangement	Degrees			
	W	X	Y	Z
8-33	90	-	-	-
8-98	-	-	-	-
10-6	90	-	-	-
12-3	-	-	180	-
12-8	90	112	203	292
12-10	60	155	270	295
14-4	45	-	-	-
14-5	40	92	184	273
14-9	15	90	180	270
14-12	43	90	-	-
14-15	17	110	155	234
14-18	15	90	180	270
14-19	30	165	315	-
16-8	54	152	180	331
16-23	158	270	-	-
16-26	60	-	275	338
18-8	180	-	-	-
18-11	62	119	241	340
18-30	180	193	285	350
18-32	85	138	222	265
20-16	238	318	333	347
20-24	70	145	215	290
20-39	63	144	252	333
20-41	45	126	225	-
22-12	-	-	-	-
22-19	15	90	225	308
22-21	16	135	175	349
22-32	72	145	215	288
22-41	39	135	264	-
22-55	30	142	226	314
22-95	26	180	266	-
24-19	30	165	315	-
24-31	90	225	255	-
24-61	90	180	270	324

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

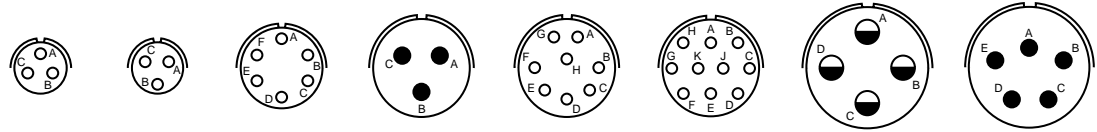
Back-Shells

Options
Others

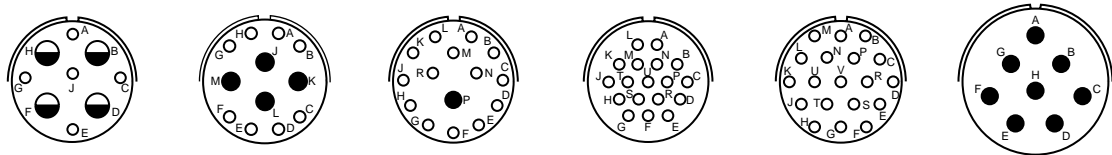
MIL-DTL-26482, Series 2, Matrix[®]

Insert Arrangements

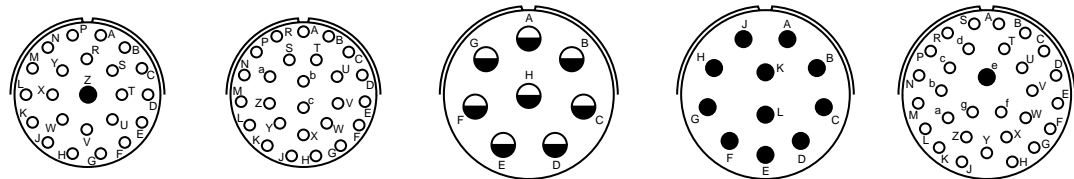
Front face of pin insert or rear face of socket insert illustrated



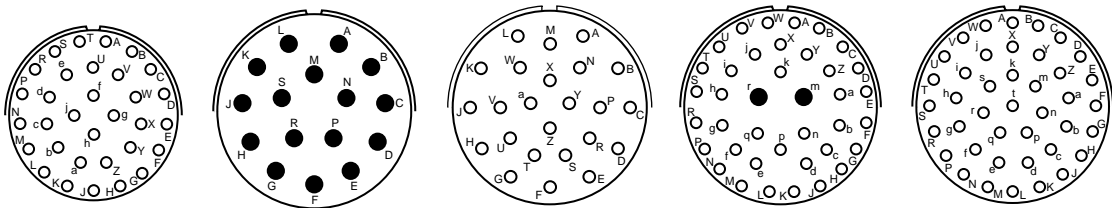
Insert Arrangement	8-33	8-98	10-06	12-03	12-08	12-10	14-04	14-05
Service Rating	I	I	I	II	I	I	I	II
Number of Contacts	3	3	6	3	8	10	4	5
Contact Size	20	20	20	16	20	20	12	16



Insert Arrangement	14-09		14-12		14-15		14-18		14-19		16-08	
Service Rating	I		I		I		I		I		II	
Number of Contacts	5	4	8	4	14	1	18		19		8	
Contact Size	20	12	20	16	20	16	20		20		20	16



Insert Arrangement	16-23		16-26		18-08		18-11		18-30	
Service Rating	I		I		I		II		I	
Number of Contacts	22	1	26		8		11		29	1
Contact Size	20	16	20		12		16		20	16



Insert Arrangement	18-32		20-16		20-24		20-39		20-41	
Service Rating	I		II		I		I		I	
Number of Contacts	32		16		24		37 2		41	
Contact Size	20		16		20		20 16		20	



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear
Release
Matrix

22992
Class I

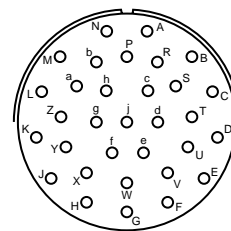
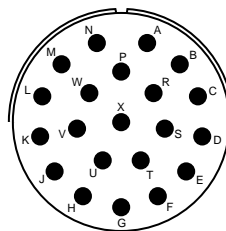
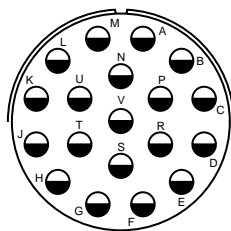
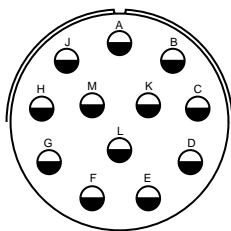
Back-
Shells

Options
Others

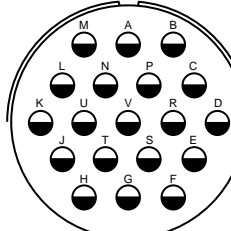
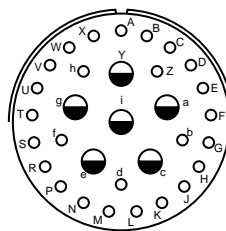
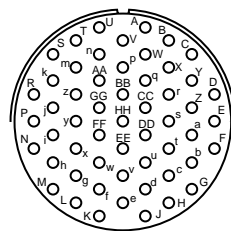
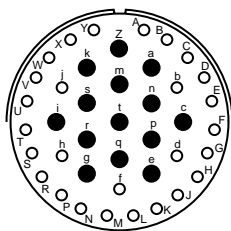
Front face of pin insert or rear face of socket insert illustrated

38999

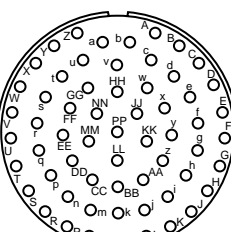
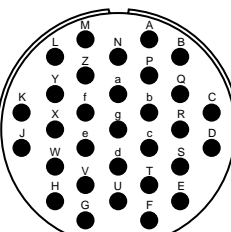
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



Insert Arrangement	22-12	22-19	22-21	22-32
Service Rating	I	I	II	I
Number of Contacts	12	19	21	32
Contact Size	12	12	16	20



Insert Arrangement	22-41	22-55	22-95	24-19
Service Rating	I	I	I	II
Number of Contacts	27 14	55	26 6	19
Contact Size	20 16	20	20 12	12



Insert Arrangement	24-31	24-61
Service Rating	I	I
Number of Contacts	31	61
Contact Size	16	20

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others



CONTACT LEGEND

20 16 12

CLASS DESCRIPTIONS

Military MIL-DTL-26482, Series 2	Amphenol/Matrix Commercial MB1 Series	Description
155	1552	Aluminum shell, electroless nickel finish, fluid resistant
155	-	1552
1552	-	1552
Class A	Class A	1552
-	155	Stainless steel shell, passivated, fluid resistant
Class W	Class W	Aluminum shell, olive drab cadmium plated, corrosion/fluid resistant

155), 4,

PERFORMANCE SPECIFICATIONS

SERVICE RATINGS**

Service Rating	Recommended Operating AC Voltage at Sea Level	Test Voltage AC (RMS), 60 cps			
		Sea Level	50,000 ft.	70,000 ft.	110,000 ft.
I	600	1,500	500	375	200
II	1,000	2,300	750	500	200

1552
 1552 2-3 1552 1552
 1552 2-3 1552
 1552
 1552

OPERATING TEMPERATURE RANGE

n n Ø
 .6)2 . - . 4 , 3 ,
 1552
 1552
 1552), 4,
 52), 49
 1552 1552

3(+ . 6)2 4). 2 1 5)2 - . 43

physical damage, or electrical discontinuity exceeding
 1552

3(+
 1552 1552
 1552

6)2 4).
 Sixteen hours of random vibration having a range of 50 to
 1552 1552

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others



- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix (Pyle)
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class L
- Back-Shells
- Options Others

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

MIL-DTL-26482, Series 2	Connector Type	Connector Style	Service Class	Shell Size/Insert Arrangement	Contact Type	Alternate Rotation of Insert	Modification Number
MILITARY	MS	3470	W	12-10	P	W	NA
COMMERCIAL	MB1	0	W	12-10	P	W	(xxx)

Step 1. Military Connector Type

MS	Designates
----	------------

Step 2. Select a Connector Style

	Designates
3470	TYPE
3472	TYPE
3471	TYPE
3474	TYPE
3476	Straight Plug
3475	TYPE

Step 3. Select a Service Class

	Designates
L	Aluminum shell, electroless nickel finish, fluid resistant insert
A	conductive fluid resistant insert
W	Aluminum shell, olive drab cadmium plated, fluid resistant insert

Step 4. Select a Shell Size & Insert Arrangement from chart on page 334.

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts
A	TYPE
B	TYPE

Step 6. Select an Alternate Rotation of Insert

Step 1. Commercial Connector Type

MB1	Designates Amphenol® Bayonet Coupling Connector
-----	---

Step 2. Select a Connector Style

	Designates
0	TYPE
1	TYPE
3	TYPE
4	TYPE
6	Straight Plug
8	TYPE

Step 3. Select a Service Class

	Designates
A	conductive, fluid resistant insert
B	NUMBER
C	NUMBER
R	Aluminum shell, electroless nickel finish, fluid resistant insert
G	Stainless steel shell, passivated, fluid resistant insert
W	Aluminum shell, cadmium plated, olive drab finish, fluid resistant insert

Step 4. Select a Shell Size & Insert Arrangement from chart on page 334.

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Select an Alternate Rotation of Insert

Step 7. Modification Number

MS3470 (MB10) – MIL-DTL-26482, Series 2

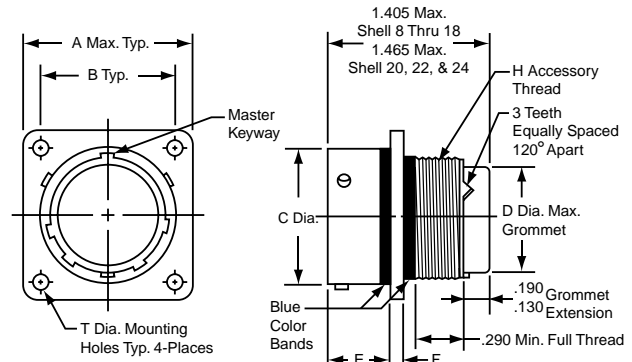


PART

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact	Alternate of Insert	UWB	UWB
Military	MS	3470	X	X-X	X	X	NA
Commercial	MB1	0	X	X-X	X	X	(XXX)

MS3470
MB10



Shell Size	A Max.	B ±.005	C Dia. ±.003	D Dia. Max.	E	F ±.016	H Accessory Thread Class 2A	T Dia. ±.005
8							5 .	
10							5 .	
12							5 .	
14							5 .	
16							5 .	
18							5 .	
20							5 .	
22							5 .	
24							5 .	

MS3472 (MB11) – MIL-DTL-26482, Series 2

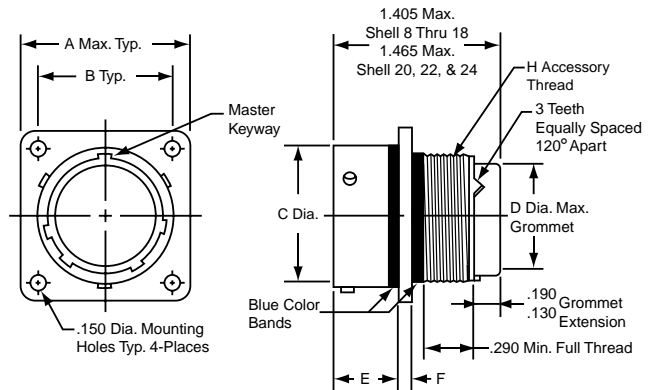


PART

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact	Alternate of Insert	UWB	UWB
Military	MS	3472	X	X-X	X	X	NA
Commercial	MB1	1	X	X-X	X	X	(XXX)

MS3472
MB11



Shell Size	A Max.	B ±.005	C Dia. ±.003	D Dia. Max.	E	F ±.016	H Accessory Thread Class 2A
8							5 .
10							5 .
12							5 .
14							5 .
16							5 .
18							5 .
20							5 .
22							5 .
24							5 .

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

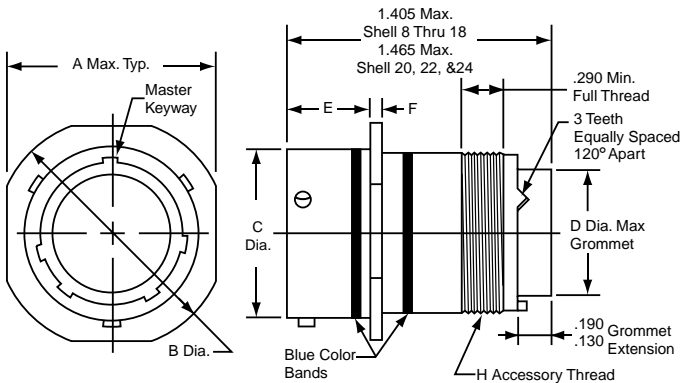
Back-Shell's

Options
Others



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact	Alternate of Insert	UMER
Military	MS	3471	X	X-X	X	X NA
Commercial	MB1	3	X	X-X	X	X (XXX)

**MS3471
MB13**

Shell Size	A Max.	B Dia. ±.020	C Dia. ±.003	D Dia. Max.	E	F ±.016	H Accessory Thread Class 2A
8							5.
10							5.
12							5.
14							5.
16							5.
18							5.
20							5.
22							5.
24							5.

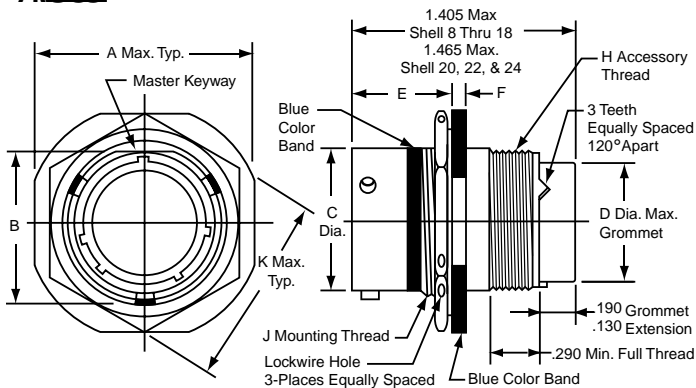
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables
- EMI Filter
- Transient

26482 Matrix 2

MS3474 (MB14) – MIL-DTL-26482, Series 2



- III
- Matrix | Pyle
- Pyle
- 5015 Crimp Rear Release Matrix



PART #

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact	Alternate of Insert	UMER
Military	MS	3474	X	X-X	X	X NA
Commercial	MB1	4	X	X-X	X	X (XXX)

**MS3474
MB14**

Shell Size	A Max.	B ±.005	C Dia. ±.003	D Dia. Max.	E	F	H Accessory Thread Class 2A	J Mounting Thread Class 2A	K Max.
8							5.	5.	
10							5.	5.	
12							5.	5.	
14							5.	5.	
16							5.	5.	
18							5.	5.	
20							5.	5.	
22							5.	5.	
24							5.	5.	

- 22992 Class 1
- Back-Shells
- Options Others

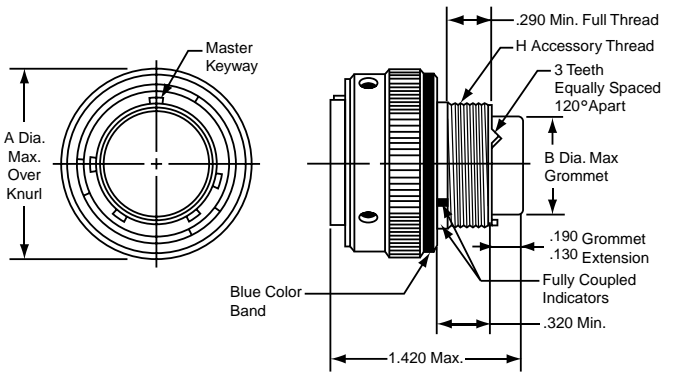
MS3476 (MB16) – MIL-DTL-26482, Series 2 Straight Plug

PART

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact of Insert	Alternate of Insert	COND	UMER
Military	MS	3476	X	X-X	X	X	NA
Commercial	MB1	6	X	X-X	X	X	(XXX)

**MS3476
MB16**



Shell Size	A Dia. Max.	B Dia. Max.	H Accessory Thread Class 2A
8			5 .
10			5 .
12			5 .
14			5 .
16			5 .
18			5 .
20			5 .
22			5 .
24			5 .

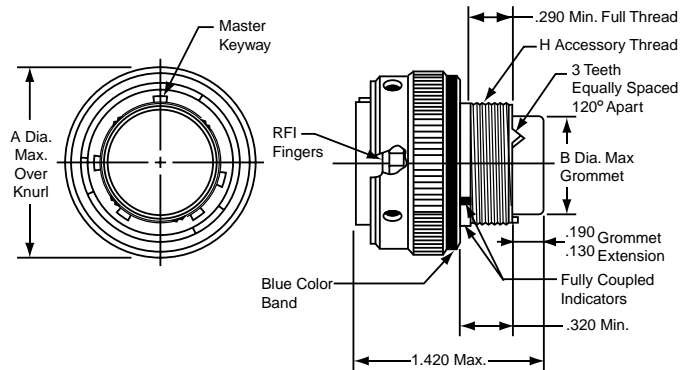
MS3475 (MB18) – MIL-DTL-26482, Series 2 Straight Plug

PART

*To complete, see how to order page 338.

Connector	Shell Style	Service Class	Arrg	Contact of Insert	Alternate of Insert	COND	UMER
Military	MS	3475	X	X-X	X	X	NA
Commercial	MB1	8	X	X-X	X	X	(XXX)

**MS3475
MB18**



Shell Size	A Dia. Max.	B Dia. Max.	H Accessory Thread Class 2A
8			5 .
10			5 .
12			5 .
14			5 .
16			5 .
18			5 .
20			5 .
22			5 .
24			5 .

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others



- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

MIL-DTL-26482, SERIES 2
CRIMP CONTACTS

Contact Size	Wire Range		Socket Contacts		Pin Contacts	
	AWG	mm ²	Military Part Number	Amphenol/Matrix Part Number	Military Part Number	Amphenol/Matrix Part Number
20	24-20		-	-	-	-
16	20-16		-	-	-	-
12	14-12	2-3	-	-	-	-

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient

CONTACT CURRENT RATING AND RETENTION

Contact Size*	DC Test Amperage	Contact Retention	
		Axial Load	
		lb.	N
20		20	
16		25	
12		30	

SEALING PLUGS

Contact Size	Sealing Plugs	
	Military Part Number	Amphenol/Matrix Part Number
20	- 3	10-405996-202
16	- 3	10-405996-162
12	- 3	10-405996-122

- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

CRIMPING TOOLS

Contact Size	Wire Range		Finished Wire Dia. Range		Crimping Tool Part Number	Turret or Positioner Part Number
	AWG	mm ²	Inch	mm		
20	24-20				- ②	- ②
16	20-16				-	-
12	14-12	2-3			-	-

- 5015 Crimp Rear Release Matrix
- 22992 Class I

INSERTION/REMOVAL TOOLS

Contact Size	Color Code	Military Part Number	Amphenol/Matrix Part Number
20	②③④	-	10-538988-201
16	Blue/White	-	10-538988-016
12	②③④	-	10-538988-012

- Back-Shells
- Options Others

more than 26 contacts, and a minimum of one sealing plug up to 15%

BACKSHELLS

②③④, 4, ③④), 4, -3 -), 4, ③④)

38999

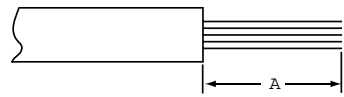
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1
- Back-Shell
- Options
- Others

Wire Stripping

Stripping Dimensions



Wire Size	A
20	
16	
12	

AE

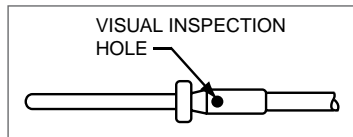
Contact Size	Wire Dimension (inches)**	
	Min.	Max.
12		
16		
20		

Crimping

See table on preceding page for turret head or positioner selection settings



Wire must be visible through inspection



the tool once to be sure the indentors

dentors in the tool head have been fully

positioner that can be dialed for each contact

Contact Insertion

and receptacle and slide the hard-



to the properly identified cavity at even pressure; do not use exces-



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Contact Insertion, cont.



28-1



sealing plug charts for Series III on page 18, for Series I, II, and III

28-1



grommet into position and tighten clamp

pressure should be applied in the same direction that clamp is threaded to rear



54)

Contact Removal



removal tool for corresponding

contact cavity until tool tips enter rear

Hold tool tip firmly against positive stop





Connectors

varying design characteristics and customer options to meet cost

PT, SP, MS/PT
Commercial/MIL-DTL-26482, Series 1

SP also has a durable non-conductive hard anodic

PT-SE, SP-SE, MS/PT-SE
Commercial/MIL-DTL-26482, Series 1

PT-CE, SP-CE
Commercial crimp type

grommet assembly provide continuous dielectric

PC, PC-SE, PC-CE
Commercial solder and crimp type

All miniature circular are intermateable and

assistance on these products or for any specific

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options
Others

Amphenol MIL-DTL-83723, Series III, Matrix®



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MIL-DTL-83723, Series III, Matrix®	
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s 10KSCONNECTOLUG- -1	
REPAIR WARD -	
REPAIR ECEPTACLEPIE	
disconnect plug	360
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s REPAIR	361



), 4,
SOME
S



®

Amphenol
Aerospace

MIL-DTL-83723, Series III, Matrix®

With a Wide Variety of Coupling Styles & Options

MIL-DTL-83723

® Product line of

of a medium sized, environmentally resistant

MIL-DTL-83723, SERIES III CONNECTORS WITH BAYONET COUPLING



M83723/71 & 72 wall mounting receptacle



M83723/73 & 74 jam nut receptacle



M83723/75 & 76 straight plug

M83723/77 & 78 straight plug, RFI grounding

- Quick positive coupling assured by 3 point bayonet coupling system; visual confirmation of complete coupling
- Five key/keyway design eliminates mismatching
- Shell sizes 8 – 24
- Intermateable with most MIL-DTL-26500 bayonet coupling connectors

versatility of this family makes it increasingly

DESIGN CHARACTERISTICS

- s Recommended operating voltage to 600 VAC 2-3
- s Complete environmental sealing includes individual contact seals and a silicone elastomer

pin, a shell-to-shell seal and an insert-to-shell

- s Incorporates crimp rear release contacts in sizes 61 circuits

3 ASE

- s Insertion and removal of contacts from the rear of the connector assures no damage to the front that might affect the sealing characteristics

- s Closed entry socket side of the insert is designed

limits

- s -30
- s Alternate positioning available

stainless steel shells are also available

3 3 (S), 4,

MIL-DTL-83723, SERIES III CONNECTORS WITH THREADED COUPLING



M83723/82 & 83 wall mounting receptacle



M83723/84 & 85 jam nut receptacle



M83723/86 & 87 straight plug

M83723/91 & 92 straight plug, RFI grounding

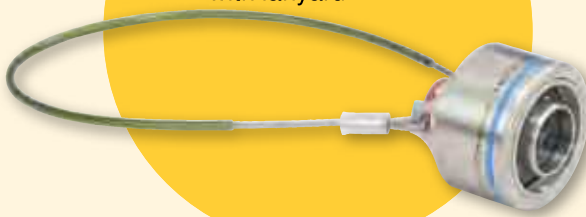


M83723/95 & 96 straight plug, self-locking

- Threaded coupling offers greater resistance to decoupling with a visual full mating indicator band on the shell
- Shell sizes 8 – 28
- Intermateable with most MIL-DTL-26500 threaded coupling connectors

MIL-DTL-83723, SERIES III CONNECTORS WITH QUICK DISCONNECT COUPLING

M83723/66 & 67 quick disconnect plug
M83723/68 & 69 quick disconnect plug with lanyard



- Push-Pull, quick disconnect coupling is available in a straight plug that can be ordered with or without a lanyard release mechanism

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

-, 4, (S), (S), 4, (S) (S)

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release
- Matrix
- 22992
- Class L
- Back-Shells
- Options
- Others

CLASS DESCRIPTIONS

Military MIL-DTL-83723, Series III	Amphenol®/ Matrix® Commercial MB Series	Connector Style	Description
Class A	Class A	Bayonet, Threaded or Quick-Disconnect	Aluminum shell, black non-conductive anodize finish,
Class R	Class R	Bayonet, Threaded or Quick-Disconnect	Aluminum shell, electroless nickel
Class W	Class W	Bayonet, Threaded or Quick-Disconnect	Aluminum shell, cadmium olive drab

-, 4, 3E

PERFORMANCE SPECIFICATIONS
SERVICE RATINGS

Service Rating	Recommended Operating AC Voltage at Sea Level	Test Voltage AC (RMS), 60 cps			
		Sea Level	50,000 ft.	70,000 ft.	110,000 ft.
I	600	1,500	500	375	200

Please note that the electrical data given is not an establishment of electrical

0 2 4). 4 -0 2 452 2 .
n n 0
n 0

.6)2 . - . 4 , 3 ,

-, 4,

52),)49
-NMU

3(+ . 6)2 4). 2 1 5)2 - .43

Wired, mated connectors shall not be damaged, nor shall there be a current interruption longer than one microsecond

SHOCKNE

VIBRATION

(Z)

either the military designation or the commercial Amphenol®

Connector Style	MIL-DTL-83723 Military Designation	Amphenol®/ Matrix® Commercial Designation	Contact Type
BAYONET COUPLING			
receptacle	-	- 3	Socket
receptacle	-	- 0	Pin
receptacle	-	- 3	Socket
receptacle	-	- 0	Pin
Standard straight plug	-	- 3	Socket
Standard straight plug	-	- 0	Pin
grounding fingers	-	- 3	Socket
grounding fingers	-	- 0	Pin
THREADED COUPLING			
receptacle	-	-4 3	Socket
receptacle	-	-4 0	Pin
receptacle	-	-4 3	Socket
receptacle	-	-4 0	Pin
Standard straight plug	-	-4 3	Socket
Standard straight plug	-	-4 0	Pin
grounding fingers	-	-4 3	Socket
grounding fingers	-	-4 0	Pin
locking clutch plate	-	-4 3	Socket
locking clutch plate	-	-4 0	Pin
QUICK-DISCONNECT PUSH-PULL COUPLING			
lanyard	-	- 1 0	Pin
lanyard	-	- 1 3	Socket
-	- 1	0	Pin
-	- 1	3	Socket

Alternate Keying Positions, Alternate Rotations

INSERT ARRANGEMENTS

Shell Size/ Insert Arrangement	Service Rating	Total Contacts	Contact Size		
			12	16	20
0803	I	3			3
0898	I	3			3
1002	I	2			2
1005	I	5			5
1006	I	6			6
1020	I	2		2	
1203	I	3		3	
1212	I	12			12
1404	I	4	4		
1407	I	7		7	
1412	I	12		3	9
1415	I	15			15
1610	I	10		10	
1624	I	24			24
1808	I	8	8		
1814	I	14		14	
1831	I	31			31
2016	I	16		16	
2025	I	25	6		19
2028	I	28	4		24
2039	I	39		2	37
2041	I	41			41
2212	I	12	12		
2219	I	19		19	
2232	I	32	6		26
	I	39		12	27
2255	I	55			55
2429†		29		29	
2430†		30		30	
2443	I	43		20	23
2457	I	57	2		55
2461	I	61			61
2841†		41		41	
2842†		42		42	

ON30

Shell size 28 is available in threaded coupling connectors

CONFORMANCE

AD

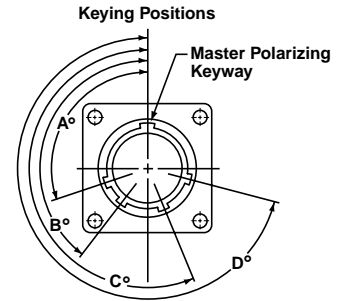
AD

AD, 34

ALTERNATE KEYING POSITIONS (Rotation of key/keyway of shell)

To avoid cross-plugging problems in one connector of the same size and arrangement, alternate keying positions are

In the "alternate keying positions"



Shown is Engaging Face View of Receptacle Shell with Keyways (Plug Shell Keys would be Opposite)

ALTERNATE KEYING POSITIONS OF SHELL

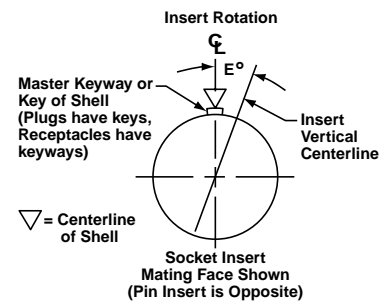
Shell Size	Polarizing Position	Key/Keyway Positions			
		A°	B°	C°	D°
8 thru 24	N	105	140	215	265
8 & 10	6	102	132	248	320
	7	80	118	230	312
	8	35	140	205	275
	9	64	155	234	304
10 only	9	25	115	220	270
12, 14, 16, 18, 20, 22, 24 and 28	6	18	149	192	259
	7	92	152	222	342
	8	84	152	204	334
	9	24	135	199	240
	9	98	152	268	338

AD, 34

ALTERNATE ROTATIONS (Rotation of insert)

center-line of the shell in the normal the insert rotates relative to the center-

and the pin insert is rotated counter-



ALTERNATE ROTATIONS OF INSERT

Shell Size	Polarizing Position	Insert Position E°
8 & 10	N	0
	1	10
	2	20
	3	30
	4	40
12, 14, 16, 18, 20, 22, 24 and 28	N	0
	1	10
	2	20
	3	30
	4	40
	5	50

AD, 34

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482
- Matrix 2

- 83723 III
- Matrix Pyle
- 26500
- Pyle

- 5015
- Crmp Rear Release Matrix
- 22992
- Class 1

- Back-Shell's
- Options Others

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix I Pyle

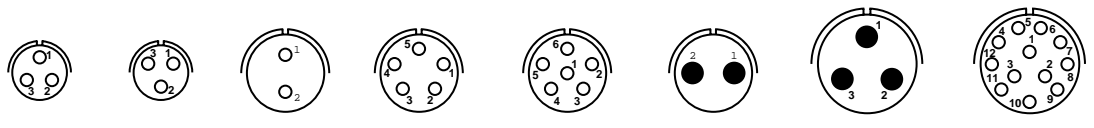
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

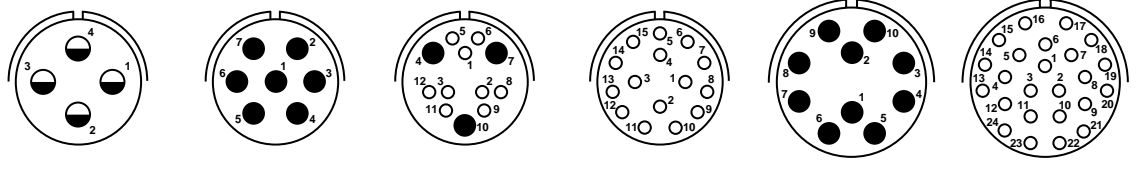
- 22992 Class I

- Back-Shells

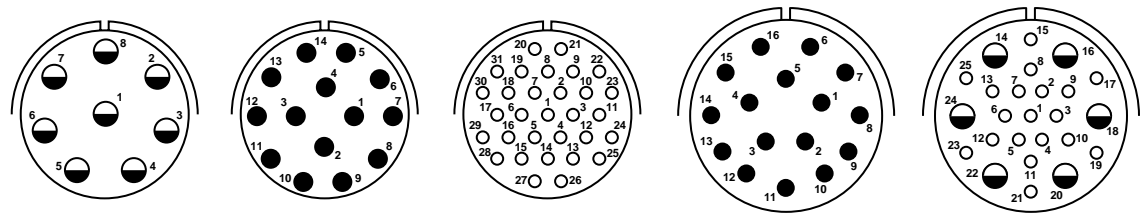
- Options Others



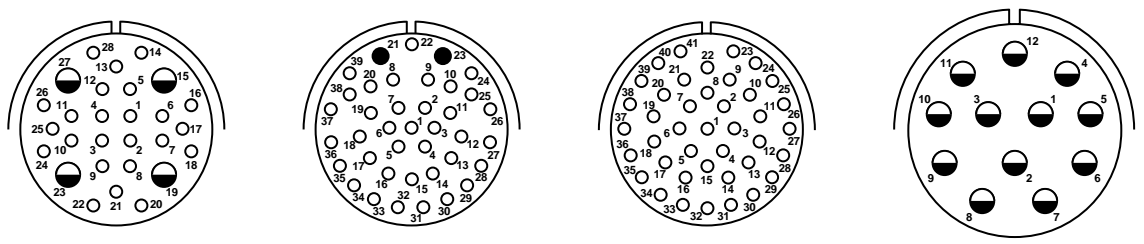
Insert Arrangement	0803	0898	1002	1005	1006	1020	1203	1212
Service Rating	I	I	I	I	I	I	I	I
Number of Contacts	3	3	2	5	6	2	3	12
Contact Size	20	20	20	20	20	16	16	20



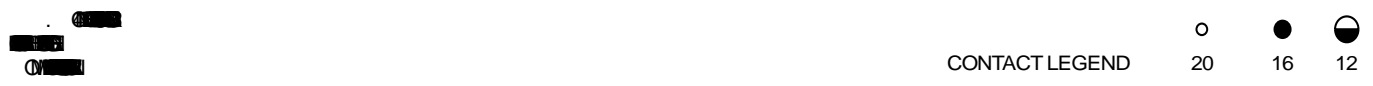
Insert Arrangement	1404	1407	1412	1415	1610	1624
Service Rating	I	I	I	I	I	I
Number of Contacts	4	7	9	3	15	24
Contact Size	12	16	20	16	20	20



Insert Arrangement	1808	1814	1831	2016	2025
Service Rating	I	I	I	I	I
Number of Contacts	8	14	31	16	19
Contact Size	12	16	20	16	20



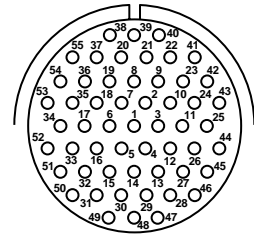
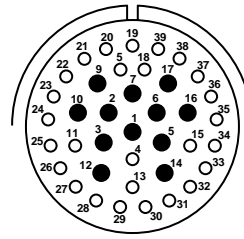
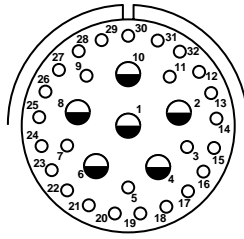
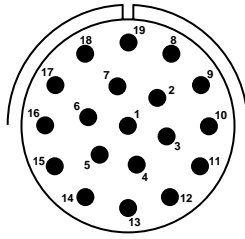
Insert Arrangement	2028	2039	2041	2212
Service Rating	I	I	I	I
Number of Contacts	24	4	37	2
Contact Size	20	12	20	16



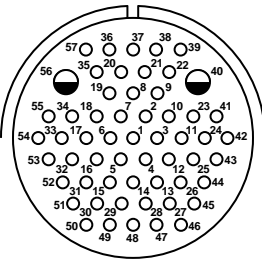
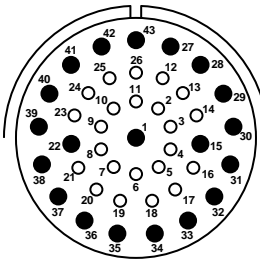
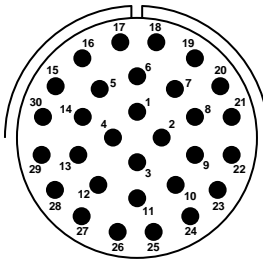
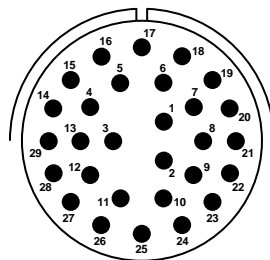
MIL-DTL-83723, Series III, Matrix[®]

Insert Arrangements

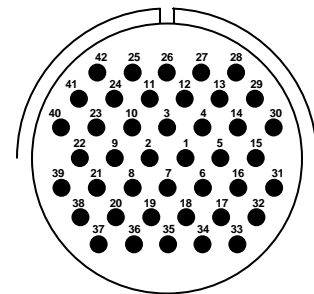
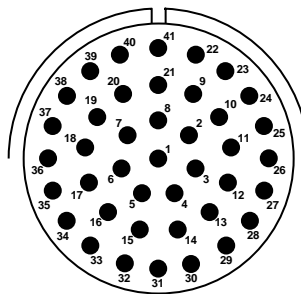
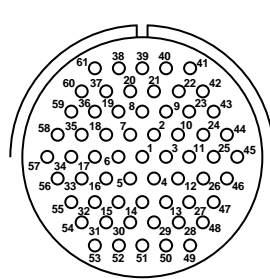
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



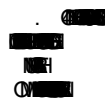
Insert Arrangement	2219	2232	2239*	2255
Service Rating	I	I	I	I
Number of Contacts	19	26 6	27 12	55
Contact Size	16	20 12	20 16	20



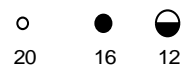
Insert Arrangement	2429†	2430†	2443	2457
Service Rating			I	I
Number of Contacts	29	30	23 20	55 2
Contact Size	16	16	20 16	20 12



Insert Arrangement	2461	2841†	2842†
Service Rating	I		
Number of Contacts	61	41	42
Contact Size	20	16	16



CONTACT LEGEND



38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shells

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

1.	2.	3.	4.	5.
MIL-DTL-83723, Series III MILITARY	Connector Style (Bayonet) and Contact Type /74	Service Class R	Shell Size/ Insert Arrangement 1203	Alternate Keying Position of Shell or Alternate Rotation of Insert 7

1.	2.	3.	4.	5.	6.	7.	
Amphenol® Matrix® MIL-DTL-83723, Series III COMMERCIAL	Connector Type (Bayonet) MB	Connector Style 34	Service Class R	Shell Size/ Insert Arrangement 1203	Contact Type P	Alternate Keying Position of Shell or Alternate Rotation of Insert 7	Modification Number XXX

Step 1. Military Connector Type

M83723	DESIGNATES MIL-DTL-83723, Series III Connectors
--------	---

Step 1. Commercial Connector Type

MB	Designates Amphenol® Bayonet Coupling Connectors
----	--

Step 2. Select a Connector Style

	Designates
/71	
/72	
/73	
/74	
/75	
/76	
/77	
/78	

Step 2. Select a Connector Style

	Designates
30	
34	
36	Standard Straight Plug
38	

Step 3. Select a Service Class

	Designates
A	resistant insert
R	
G	
W	insert

Step 3. Select a Service Class

	Designates
A	Aluminum shell, black non-conductive anodize
R	resistant insert
G	insert
W	Aluminum shell, cadmium olive drab finish,

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 349.

First number represents Shell Size, second number is the

Step 4. Select a Shell Size & Insert Arrangement from chart on page 349.

First number represents Shell Size, second number is the

Step 5. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

or Step 5. Select an Alternate Rotation of Insert.

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

or Step 6. Select an Alternate Rotation of Insert.

Step 7. Modification Number

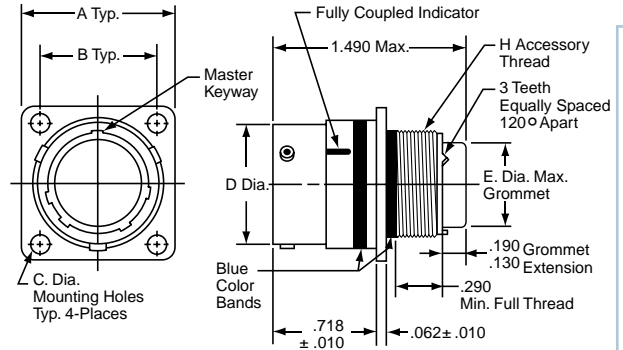
For ordering information on accessories, such as protection caps and

M83723/71 & /72 – MIL-DTL-83723, Series III

PART

To complete, see how to order page 352.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or Arrg	Number
Military	M83723 /71 (with socket contacts)	X	X-X	X	X	XXX
Military	M83723 /72 (with pin contacts)	X	X-X	X	X	XXX
Commercial	MB	30	X	X-X	X	XXX



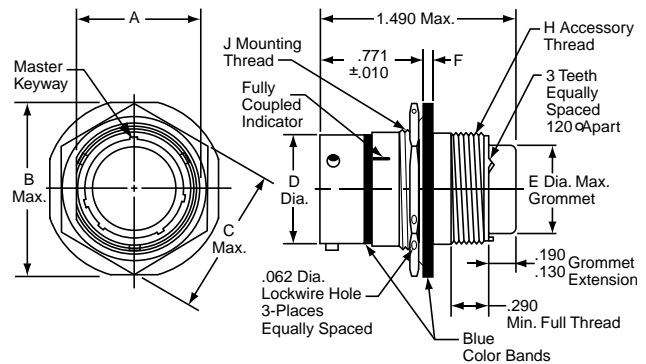
Shell Size	A ±.005	B ±.005	C Dia. ±.005	D Dia.	E Dia.	H Accessory Thread Class 2A
8						5.
10						5.
12						5.
14						5.
16						5.
18						5.
20						5.
22						5.
24						5.

M83723/73 & /74 – MIL-DTL-83723, Series III

PART

To complete, see how to order page 352.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or Arrg	Number
Military	M83723 /73 (with socket contacts)	X	X-X	X	X	XXX
Military	M83723 /74 (with pin contacts)	X	X-X	X	X	XXX
Commercial	MB	34	X	X-X	X	XXX



Shell Size	A	B Max.	C Max.	D Dia.	E Dia. Max.	F	H Accessory Thread Class 2A	J Mounting Thread Class 2A
8							5.	5.
10							5.	5.
12							5.	5.
14							5.	5.
16							5.	5.
18							5.	5.
20							5.	5.
22							5.	5.
24							5.	5.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

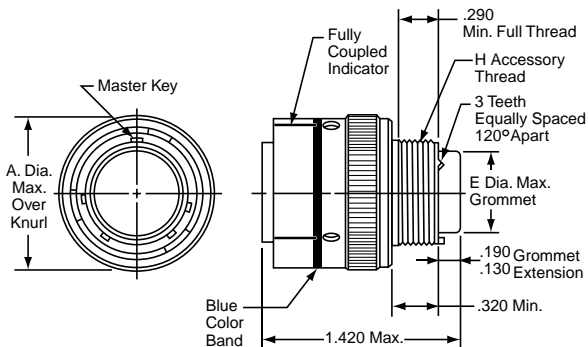
22992 Class 1

Back-Shell

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #

To complete, see how to order page 352.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Military	M83723	/75 (with socket contacts)	X	X-X	X	
Military	M83723	/76 (with pin contacts)	X	X-X	X	

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MB	36	X	X-X	X	XXX

Shell Size	A Dia. Max.	E Dia. Max.	H Accessory Thread Class 2A
8			5 .
10			5 .
12			5 .
14			5 .
16			5 .
18			5 .
20			5 .
22			5 .
24			5 .

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

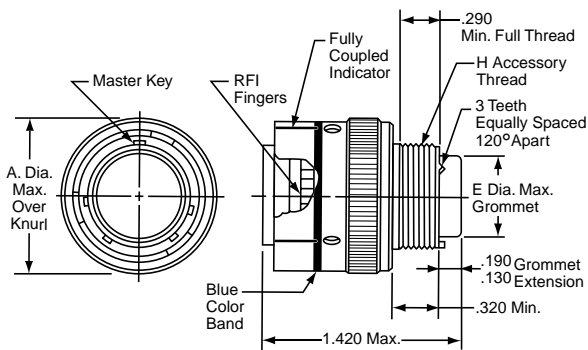
5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

M83723/77 & /78 – MIL-DTL-83723, Series III
Straight Plug, Bayonet Coupling



PART #

To complete, see how to order page 352.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Military	M83723	/77 (with socket contacts)	X	X-X	X	
Military	M83723	/78 (with pin contacts)	X	X-X	X	

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MB	38	X	X-X	X	XXX

Shell Size	A Dia. Max.	E Dia. Max.	H Accessory Thread Class 2A
8			5 .
10			5 .
12			5 .
14			5 .
16			5 .
18			5 .
20			5 .
22			5 .
24			5 .

1.	2.	3.	4.	5.	
MIL-DTL-83723, Series III	Connector Type	Connector Style (Threaded) and Contact Type	Service Class	Shell Size/ Insert Arrangement	Alternate Keying Position of Shell or Alternate Rotation of Insert
MILITARY	M83723	/84	R	803	N

1.	2.	3.	4.	5.	6.	7.	
Amphenol®/Matrix® MIL-DTL-83723, Series III	Connector Type (Threaded)	Connector Style	Service Class	Shell Size/ Insert Arrangement	Contact Type	Alternate Keying Position of Shell or Alternate Rotation of Insert	Modification Number
COMMERCIAL	MT	34	R	0803	P	7	XXX

Step 1. Military Connector Type

M83723	DESIGNATES J4, Series III Connectors
--------	--------------------------------------

Step 2. Select a Connector Style

	Designates
/82	
/83	
/84	
/85	
/86	
/87	
/91	
/92	
/95	
/96	

Step 3. Select a Service Class

	Designates
A	Aluminum shell, black non-conductive anodize finish, tant insert
R	Aluminum shell, black non-conductive anodize finish, brass insert
G	Aluminum shell, black non-conductive anodize finish, gold insert
W	Aluminum shell, cadmium olive drab finish, tant insert

30 4, 30
MIL-DTL-83723, Series III
n (MIL-DTL-83723)

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 349.

First number represents Shell Size, second number is the

FIGURE 3

Step 5. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

SEE FIGURE 3

FIGURE 3

or Step 5. Select an Alternate Rotation of Insert.

SEE FIGURE 3

FIGURE 3

For ordering information on accessories, such as protection caps and

FIGURE 3

Step 1. Commercial Connector Type

MT	Designates Amphenol® Matrix® Threaded Coupling Connector
----	--

Step 2. Select a Connector Style

	Designates
30	
34	
36	Standard Straight Plug
38	
37	

Step 3. Select a Service Class

	Designates
A	Aluminum shell, black non-conductive anodize finish, tant insert
R	Aluminum shell, black non-conductive anodize finish, brass insert
G	Aluminum shell, black non-conductive anodize finish, gold insert
W	Aluminum shell, cadmium olive drab finish, tant insert

30 4, 30
MIL-DTL-83723, Series III
n (MIL-DTL-83723)

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 349.

First number represents Shell Size, second number is the

FIGURE 3

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

SEE FIGURE 3

FIGURE 3

FIGURE 3

No letter

See page 349

or Step 6. Select an Alternate Rotation of Insert.

SEE FIGURE 3

FIGURE 3

FIGURE 3

Step 7. Modification Number

FIGURE 3

38999

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

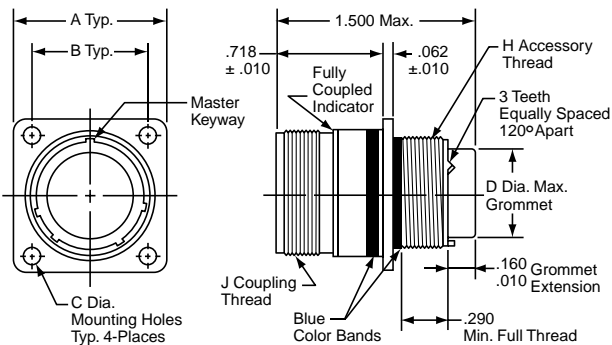
Back-Shells

Options Others



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #

To complete, see how to order page 355.

Connector Type	Connector Style #	Service Class and Contact Type	Shell Size & Insert Arrg	Position or
Military	M83723	/82 (with socket contacts)	X X-X	X
Military	M83723	/83 (with pin contacts)	X X-X	X

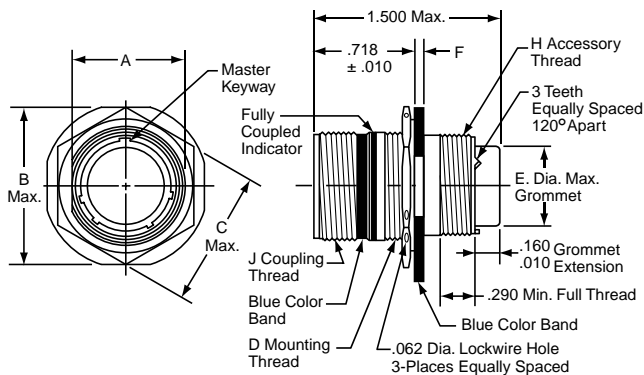
Connector Type #	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MT	30	X X-X	X	X	XXX

Shell Size	A ±.005	B ±.005	C Dia.	D Dia. Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2A
8					5.	5.
10					5.	5.
12					5.	5.
14					5.	5.
16					5.	5.
18					5.	5.
20					5.	5.
22					5.	5.
24					5.	5.
					5.3	5.

M83723/84 & /85 – MIL-DTL-83723, Series III



- 26482 Matrix 2
- 83723 III Matrix I Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix



PART #

To complete, see how to order page 355.

Connector Type	Connector Style #	Service Class and Contact Type	Shell Size & Insert Arrg	Position or
Military	M83723	/84 (with socket contacts)	X X-X	X
Military	M83723	/85 (with pin contacts)	X X-X	X

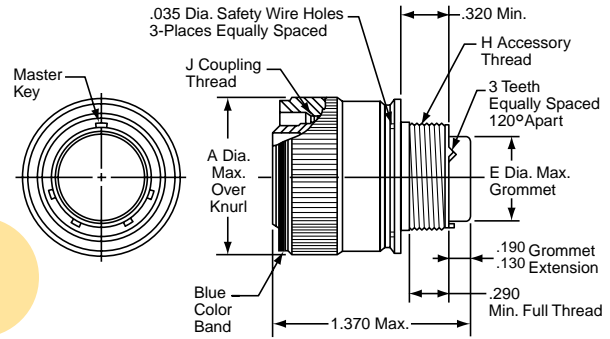
Connector Type #	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MT	34	X X-X	X	X	XXX

Shell Size	A ±.003	B Max.	C Max.	D Mounting Thread	E Dia. Max.	F	H Accessory Thread Class 2A	J Coupling Thread Class 2A
8				5.			5.	5.
10				5.			5.	5.
12				5.			5.	5.
14				5.			5.	5.
16				5.			5.	5.
18				5.			5.	5.
20				5.			5.	5.
22				5.			5.	5.
24				5.			5.	5.
				5.			5.3	5.

PART

To complete, see how to order page 355.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or Arrg	Number
Military	M83723 /86 (with socket contacts)	X	X-X	X	X	XXX
Military	M83723 /87 (with pin contacts)	X	X-X	X	X	XXX
Commercial	MT	36	X	X-X	X	XXX



Shell Size	A Dia. Max.	E Dia. Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2B
8			5.	5.
10			5.	5.
12			5.	5.
14			5.	5.
16			5.	5.
18			5.	5.
20			5.	5.
22			5.	5.
24			5.	5.
			5.3	5.

AMPHENOL

AMPHENOL

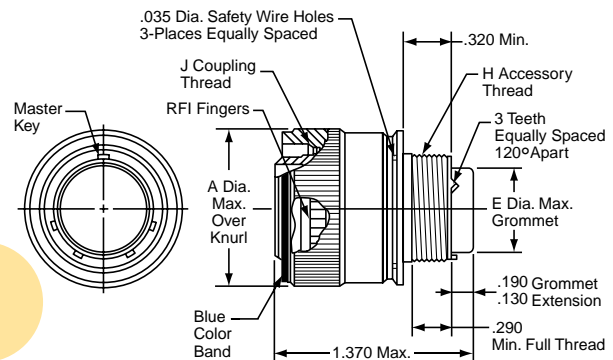
M83723/91 & /92 – MIL-DTL-83723, Series III

Straight Plug, Threaded Coupling

PART

To complete, see how to order page 355.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Type	Position or Arrg	Number
Military	M83723 /91 (with socket contacts)	X	X-X	X	X	XXX
Military	M83723 /92 (with pin contacts)	X	X-X	X	X	XXX
Commercial	MT	38	X	X-X	X	XXX



Shell Size	A Dia. Max.	E Dia. Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2B
8			5.	5.
10			5.	5.
12			5.	5.
14			5.	5.
16			5.	5.
18			5.	5.
20			5.	5.
22			5.	5.
24			5.	5.
			5.3	5.

AMPHENOL

AMPHENOL

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix 1 Pyle

26500
Pyle

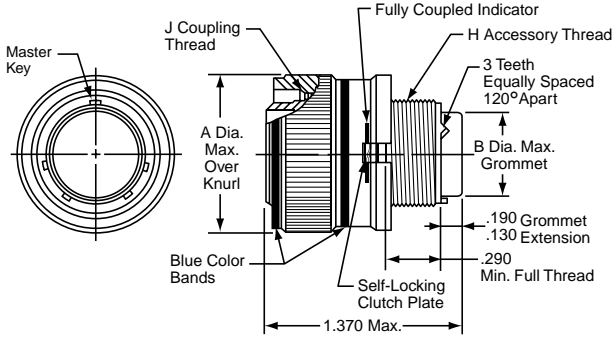
5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #
To complete, see how to order page 355.

Connector Type	Connector Style and Contact Type	Service Class	Shell Size & Insert Arrg	Contact Position or	
Military	M83723	/95 (with socket contacts)	X	X-X	X
Military	M83723	/96 (with pin contacts)	X	X-X	X

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Contact Position or	Number
Commercial	MT	37	X	X-X	X	XXX

Shell Size	A Dia. Max.	B Dia. Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2B
8			5 .	5 .
10			5 .	5 .
12			5 .	5 .
14			5 .	5 .
16			5 .	5 .
18			5 .	5 .
20			5 .	5 .
22			5 .	5 .
24			5 .	5 .
			5.3	5 .

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

Connectors

	1.	2.	3.	4.	5.
MIL-DTL-83723, Series III	Connector Type	Connector Style (Quick-Disconnect) and Contact Type	Service Class	Shell Size/ Insert Arrangement	Alternate Keying Position of Shell or Alternate Rotation of Insert
MILITARY	M83723	/66	R	0803	N

	1.	2.	3.	4.	5.	6.	7.
Amphenol®/Matrix® MIL-DTL-83723, Series III	Connector Type (Quick-Disconnect)	Connector Style	Service Class	Shell Size/ Insert Arrangement	Contact Type	Alternate Keying Position of Shell or Alternate Rotation of Insert	Modification Number
COMMERCIAL	MQ	35	R	0803	P	7	XXX

Step 1. Military Connector Type

M83723	DESIGNATES J4, Series III Connectors
--------	--------------------------------------

Step 2. Select a Connector Style

	Designates
/66	
/67	
/68	
/69	

Step 3. Select a Service Class

	Designates
A	Low-voltage resistant insert
R	
G	
W	

Step 4. Select a Shell Size & Insert Arrangement from chart on page 349.

First number represents Shell Size, second number is the

Step 5. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

or Step 5. Select an Alternate Rotation of Insert.

For ordering information on accessories, such as protection caps and

Step 1. Commercial Connector Type

MQ	Designates Amphenol® Quick-Disconnect Coupling Connector
----	--

Step 2. Select a Connector Style

	Designates
35	
36	
38	

Step 3. Select a Service Class

	Designates
A	Aluminum shell, black non-conductive anodize finish, insert
R	
G	
W	Aluminum shell, cadmium olive drab finish,

Step 4. Select a Shell Size & Insert Arrangement from chart on page 349.

Shell Size & Insert Arrangements are together in one

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

No letter See page 349

or Step 6. Select an Alternate Rotation of Insert.

No letter See page 349

Step 7. Modification Number

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

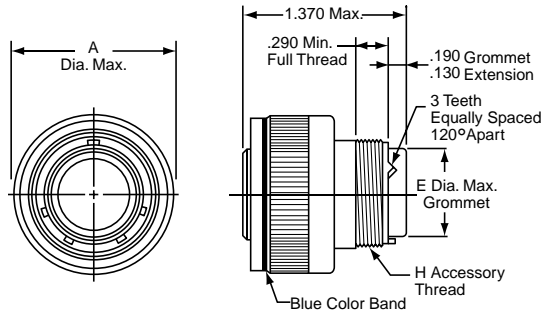
- 22992 Class 1

- Back-Shells

- Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



PART #

To complete, see how to order page 359.

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Military	M83723	/67 (with socket contacts)	X	X-X	X	
Military	M83723	/66 (with pin contacts)	X	X-X	X	

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MQ	36	X	X-X	X	XXX

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

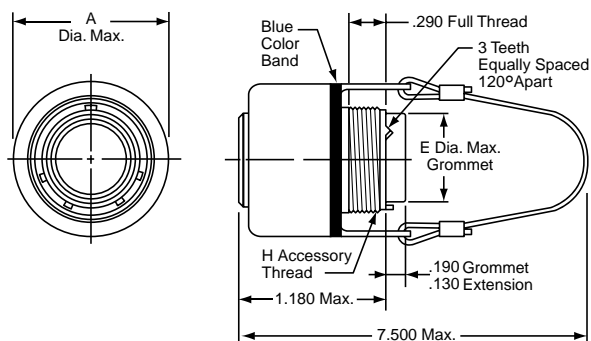
5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

M83723/68 & /69 – MIL-DTL-83723, Series III



PART #

To complete, see how to order page 359.

Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Military	M83723	/69 (with socket contacts)	X	X-X	X	
Military	M83723	/68 (with pin contacts)	X	X-X	X	

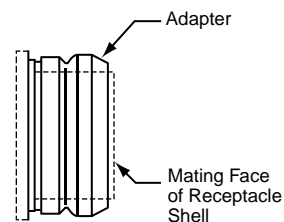
Connector Type	Connector Style	Service Class	Shell Size & Insert Arrg	Contact Type	Position or	Number
Commercial	MQ	35	X	X-X	X	XXX
Commercial (No Mil-spec Equivalent)	MQ	38	X	X-X	X	XXX

Quick-Disconnect

Shell Size	A Dia. Max.	E Dia. Max.	H Accessory Thread Class 2A
8			5 .
10			5 .
12			5 .
14			5 .
16			5 .
18			5 .
20			5 .
22			5 .
24			5 .

Receptacle Adapter

the threads for a permanent
by Commercial Part Number
2500-007-0X XX
Finish Shell Size



00 designates aluminum, electroless nickel, Class R
01 designates aluminum, hard anodize, Class A
03 designates aluminum, cadmium plate, Class W

888
Finish Shell Size

R designates aluminum, electroless nickel, Class R
A designates aluminum, hard anodize, Class A
W designates aluminum, cadmium plate, Class W

MIL-DTL-83723, Series III, Matrix®

Contact Information, Sealing Plugs

38999

MIL-DTL-83723, SERIES III CRIMP CONTACTS

Contact Size	Wire Range		Socket Contacts	Pin Contacts
	AWG	mm ²	Military Part Number	Military Part Number
20	24-20		-	-
16	20-16		-	-
12	14-12	2-3	-	-

CONTACT CURRENT RATING AND RETENTION

Contact Size*	Current Rating		Contact Retention	
	Amperes Max.	Voltage Drop Millivolts	Axial Load	
			lb.	N
20		35	20	
16		25	25	
12		25	30	

SEALING PLUGS

Contact Size	Sealing Plugs	
	Military Part Number	Amphenol/Matrix Part Number
20	- 3	3400-043-0020
16	- 3	3400-043-0016
12	- 3	3400-043-0012

CRIMPING TOOLS

Contact Size	Wire Range		Finished Wire Dia. Range		Crimping Tool Part Number	Turret or Positioner Part Number
	AWG	mm ²	Inch	mm		
20	24-20				- ⑧	- ⑧
16	20-16				-	-
12	14-12	2-3			-	-

INSERTION/REMOVAL TOOLS

Contact Size	Color Code	Military Part Number	Amphenol/Matrix Part Number
20	②③④	-	6500-001-0020
16	①②③④	-	6500-001-0016
12	①②③	-	6500-001-0012

contacts, and a minimum of one sealing plug up to 10% of the number

BACKSHELLS

①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬⑭⑮⑯⑰⑱⑲⑳㉑㉒㉓㉔㉕㉖㉗㉘㉙㉚㉛㉜㉝㉞㉟㊱㊲㊳㊴㊵㊶㊷㊸㊹㊺), 4, ③④), 4, -3 -), 4, ③④)

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-
Shells

Options
Others

Amphenol MIL-DTL-83723, Series III, Pyle®

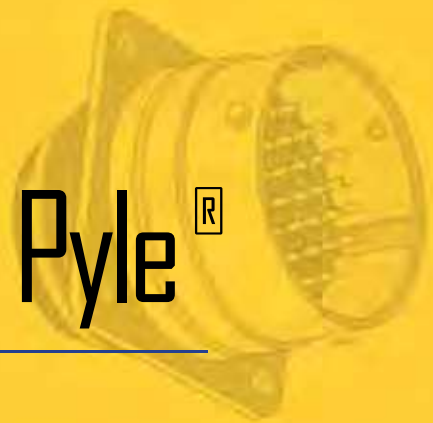


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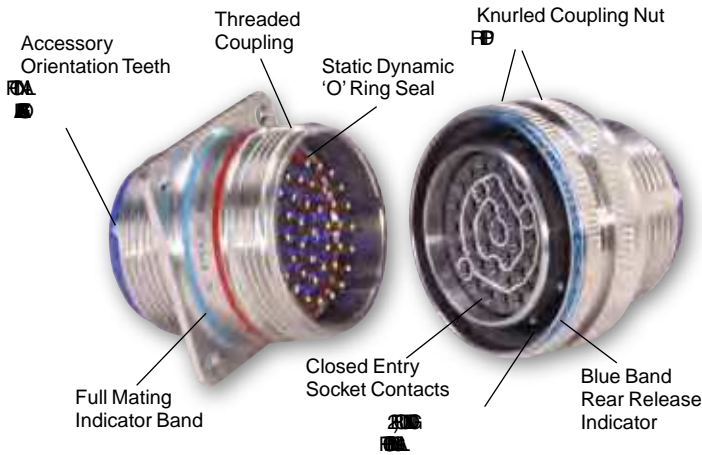


MIL-DTL-83723 Series III, Pyle® Typical Markets:

- s Military & Commercial Aviation
 - High Temperature Applications, Harsh Environments
- s Military Vehicles

Amphenol
Aerospace

Amphenol Aerospace offers the Pyle® Product line of -), 4,



Design Features

The Amphenol MIL-DTL-83723, Series III family of connectors have proven technology for severe environments. These connectors incorporate many advantageous features and a locking mechanism that provides greater resistance to vibration - thus offering the user added assurance.

SERVICE RATINGS

Service Rating	Recommended Operating AC Voltage at Sea Level	Test Voltage AC (RMS), 60 cps			
		Sea Level	50,000 ft.	70,000 ft.	110,000 ft.
I	600	1,500	500	375	200

Please note that the electrical data given is not an establishment

of the high temperature connector is also available under MIL-DTL-83723 (4+)

The Pyle 83723 family provides connectors in environmental,

THREADED STYLE CONNECTORS

- Stainless steel shells** provide corrosion resistance
- Metal-to-metal bottoming
- Patented non-decoupling device in plugs - a self-locking clutch plate that provides greater resistance to decoupling than coupling during vibration

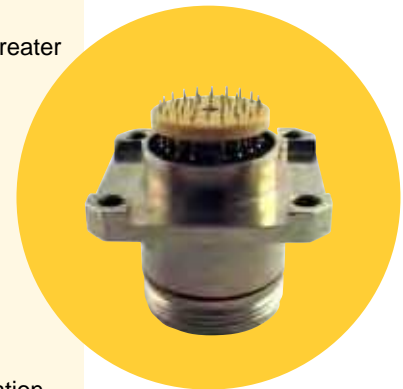
BAYONET STYLE CONNECTORS

HIGH TEMPERATURE STYLE CONNECTORS

- High temperature connector materials and contacts provide operation to 200°C and
- Improved metal-to-metal bottoming design
- Improved 360° accessory orientation teeth provide greater performance under vibration

Royce specifications

HERMETIC STYLE CONNECTORS



PC Tail and Standoff

* MIL-DTL-83723 supersedes -),
 ** The Amphenol Pyle 83723 family is offered in stainless steel shell Matrix 83723 family for aluminum shell classes in the preceding

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell

Options Others

- 38999
- III
- HD
- Dual
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

██████████

® Product line of MIL-DTL-83723*, Series III



ESC11
Engine Connector

These connectors meet the performance requirements of the following manufacturer's specifications:

██████████ - . . . ██████████

s European: ASD† EN2997

██████████ 4

s██████████ 3 ██████████

MIL-DTL-83723, SERIES III CONNECTOR PERFORMANCE CHARACTERISTICS

Operating Temperature Data	██████████ n TO ██████████ ██████████
Altitude	Sea Level to 110,000 feet
Voltage Breakdown Rating	Service Rating I ██████████ FT ██████████ FT
Contact Rating	██████████ ██████████ ██████████
Contact Retention Strength	██████████
Connector Durability	500 cycles per MIL-DTL-83723 for threaded coupling; ██████████ - 4 ██████████
Humidity	██████████
Exposure	Freezing rain
Non-Decoupling	██████████
Vibration	-EETS-),4, OF ██████████ - . . F ██████████ ██████████ 4 AND - 4 ██████████ Temp. Extremes ██████████ G Level ██████████ Time Length ██████████ ██████████ n ██████████ ██████████

HERMETIC CONNECTOR PERFORMANCE CHARACTERISTICS

Thermal Shock	██████████ ██████████
Physical Shock (Mated)	S
Moisture Resistance (Mated)	500 Megohms
Insulation Resistance, High Temp. (Mated)	500 Megohms
Corrosion (Unmated)	██████████
Temperature Life	██████████
Air Leakage (Unmated)	██████████
Altitude Immersion (Mated)	██████████ ██████████ tion resistance should remain 1000 megohms minimum and support 1500 volts RMS ██████████
High Potential Voltage Altitude (Unmated)	██████████ ██████████ Altitude/Service Rating I 2-3 2-3 2-3

- ██████████ 2 AD . ██████████ 4

† ASD supersedes AECMA

MIL-DTL-83723, SERIES III SQUARE FLANGE RECEPTACLE, THREADED COUPLING

Military: M83723/83723

MS +

Military: M83723/83723

MS +

Commercial: BT()-17

MS +

OM

BEA

BJ-17

MS +
MS +

BJ8-17

MS +

recessed pins

BN-17

Same as BJ-17 except Electro-deposited

Nickel Base

BN8-17

MS +

recessed pins

BNK-17

MS +

OM

BEA

Designation: BACC63CN**

MS +

MS +

MS +

OM

BEA

BSK-17

MS +

MS +

9

Commercial

ASD Designation: EN2997 ()0

Meets ASD specifications

MS +

MS + 3 9

OM

BEA

European Stds: BT()-17

MS +

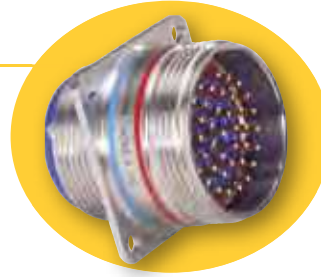
Variations for Euro market specifications

BJ()-17

MS +

MS +

Variations for Euro market specifications



Receptacle
Threaded

SERVICE CLASSES* MILITARY AND COMMERCIAL

G	Stainless steel, 200°C
K	316 stainless steel capability
S	316 stainless steel
P	316 stainless steel Eyelet contacts
Y	316 stainless steel
KE	316 stainless steel
SE	316 stainless steel
YE	316 stainless steel

MS +

MS +

MS +

MS +



MS +
MS +
MS +
MS +

Commercial - Meet
Society of British

MS +

Royce Standards: ESC10 ()0

MS + 3 9

360° accessory y teeth per MS3155

ESC11 ()0

MS + 3 9

Scoop-proof recessed pins,
360° accessory y teeth per MS3155

ESC10 & ESC11 also available in

MS +

MS +

3 MS +

Scoop-Proof

MS +

HTK-17

MS +

Scoop-proof, Variations for Euro market
specifications

HNK-17

MS +

MS +

Scoop-proof, Variations for Euro market specs

HSK-17

Same as HTK, except this is a special

MS +

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shell's

Options
Others

38999

MIL-DTL-83723, SERIES III JAM NUT (D-HOLE MOUNT) RECEPTACLE, THREADED COUPLING



Jam Nut Receptacle, Threaded

**SERVICE CLASSES*
MILITARY AND COMMERCIAL**

G	Stainless steel, 200°C
K	Stainless steel capability
S	Stainless steel
P	Stainless steel Eyelet contacts
Y	Stainless steel
KE	Stainless steel
SE	Stainless steel
YE	Stainless steel

Military: M83723/8-
M83723/8-
Commercial: BT()-19
BJ-19
BJ8-19
recessed pins
BN-19
Same as BJ-17 except Electro-deposited Nickel Base
BN8-19
recessed pins
BNK-19

Commercial
ASD Designation: EN2997 ()7
Meets ASD specifications
NFL 54143 ()7

European Stds: BT()-19
Variations for Euro market specifications
BJ()-19
Variations for Euro market specifications

Commercial - Meet Society of British
3 3
available in Hermetic only - See Hermetic

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shells

- Options Others

MIL-DTL-83723, Series III, Pyle® Plugs, Threaded - Quick Reference

MIL-DTL-83723, SERIES III STANDARD STRAIGHT PLUG, THREADED COUPLING

Military: M83723/8 +
 Military: M83723/8 +
 Commercial: BT()11
 +

OM
 BEA
 BJA-11
 YCA

BJ8-11
 3MS
 recessed pins
 BN-11
 Same as BJ-17 except Electro-deposited Nickel Base
 BN8-11
 3MS
 BNK-11
 3MS



Standard
Straight Plug,
Threaded

SERVICE CLASSES* MILITARY AND COMMERCIAL

G	Stainless steel, 200°C
K	3MS capability
S	3MS
KE	3MS
SE	3MS

3MS 200°C
 3MS
 AX

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

MIL-DTL-83723, SERIES III NON-DECOUPLING PLUG (UNIQUE SELF-LOCKING CLUTCH PLATE), THREADED COUPLING

Military: M83723/9 +
 M83723/9 +
 M83723/97 +
 M83723/97 +
 Commercial: BT()12
 +

OM
 BEA
 BJA-12
 YCA

BJ8-12
 3MS
 recessed pins
 BN-12
 Same as BJ-17 except Electro-deposited Nickel Base
 BN8-12
 3MS
 recessed pins
 BNK-12
 3MS



Non-Decoupling Plug, Threaded

360° Accessory Teeth;
 Right - Blue insert - 200°C and 3 Accessory Teeth

Commercial
 ASD Designation: EN2997 ()6
 Meets ASD specifications
 3MS
 3MS-3

OM
 European Stds: BT()-12
 Variations for Euro market specifications
 BJ()-12
 3MS +
 Variations for Euro market specifications

Commercial - Meet
 Royce Standards: ESC10 ()6
 3MS
 360° accessory teeth per MS3155
 ESC11 ()6
 3MS
 Scoop-proof, 360° accessory teeth per MS3155

3MS
 HTK-12
 3MS
 Scoop-proof, Variations for Euro market specs
 HNK-12
 3MS
 Scoop-proof, Variations for Euro market specs
 HSK-12
 Same as HTK, except this is a special
 3MS

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix






22992
Class 1

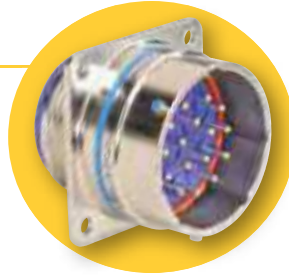
Back-
Shells



Options
Others

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

MIL-DTL-83723, SERIES III SQUARE FLANGE RECEPTACLE, BAYONET COUPLING

Military: M83723/7 
 +
 Military: M83723/7 
 +
 Commercial: BY()17
 +



 
 Receptacle
 Coupling






SERVICE CLASSES*
MILITARY AND COMMERCIAL

G	Stainless steel, 200°C
K	316 capability

~~2ND ANGLE~~
~~NEC~~
~~AK~~
~~AK~~

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

MIL-DTL-83723, SERIES III JAM NUT (D-HOLE MOUNT) RECEPTACLE, BAYONET COUPLING

Military: M83723/7 
 +
 Military: M83723/7 
 +
 Commercial: BY()19
 +








Jam Nut
~~CLEAN~~
 Receptacle
 Coupling

- EMI Filter
- Transient


- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

MIL-DTL-83723, SERIES III STRAIGHT PLUG, BAYONET COUPLING

Military: M83723/7 
 +
 Military: M83723/7 
 +
 Commercial: BY()10
 +



Straight Plug

 Coupling






- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

Bayonet coupling connectors are offered in Military 83723 and Commercial

 
 3 


- Options
- Others

MIL-DTL-83723, Series III, Pyle® Hermetic Receptacles - Quick Reference

MIL-DTL-83723, SERIES III HERMETIC SQUARE FLANGE RECEPTACLE, THREADED COUPLING

- Military: M83723/88Y
Stainless Steel, Class Y,
[REDACTED]
- Military: M83723/88P
Stainless Steel, Class P,
Eyelet contacts
- Commercial: BTY-17
Stainless Steel, 'O' ring Seal,
[REDACTED]
200°C or 260°C
BFY-17
Stainless Steel, Static Dynamic
[REDACTED]
200°C or 260°C
BNY-17
Stainless Steel, Static Dynamic
[REDACTED]
200°C or 260°C
- Commercial
ASD Designation: EN2997Y0YE0
Meets ASD Specifications, Stainless Steel,
[REDACTED] [REDACTED] [REDACTED]
- Commercial - Meet
Society of British
[REDACTED]
- Royce Standards: ESC10YE2
[REDACTED]
ESC11YE2
[REDACTED]
Scoop-proof Recessed pins
- 0 [REDACTED]



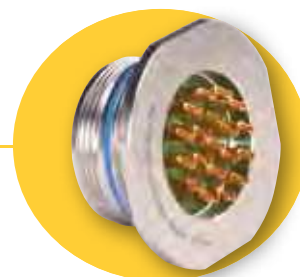
Hermetic
[REDACTED]
Receptacle,
Threaded

SERVICE CLASSES HERMETIC MILITARY AND COMMERCIAL

Y	3 [REDACTED]
P	3 [REDACTED] eyelet contacts
YE	[REDACTED] [REDACTED]

MIL-DTL-83723, SERIES III HERMETIC JAM NUT RECEPTACLE, THREADED COUPLING

- Military: M83723/89Y
[REDACTED]
- Military: M83723/89P
Stainless Steel, Class Y, Eyelet contacts
- Commercial: BTY-19
[REDACTED]
BFY-19
[REDACTED]
BNY-19
[REDACTED]
contacts, 200°C or 260°C
- Commercial
ASD Designation: EN2997Y7YE7
Meets ASD Specifications, Stainless Steel,
[REDACTED] [REDACTED] [REDACTED]
- Commercial - Meet
Society of British
[REDACTED]
- Royce Standards: ESC10YE3
[REDACTED]
ESC11YE3
[REDACTED]
Scoop-proof Recessed pins
- 0 [REDACTED]



Hermetic
Jam Nut
Receptacle,
Threaded

Commercial BTY, BFY and BNY meet

[REDACTED]
[REDACTED] 4 [REDACTED]

Shell sizes 20, 24 and 28, consult
[REDACTED]

Hermetic style receptacles are not
[REDACTED]

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

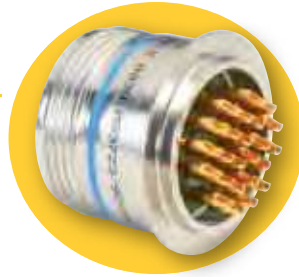
22992
Class 1

Back-
Shells

Options
Others



MIL-DTL-83723, SERIES III
HERMETIC SOLDER MOUNT/WELD MOUNT
RECEPTACLE, THREADED COUPLING



**Hermetic
Mount Receptacle,
Threaded**

SERVICE CLASSES
HERMETIC
MILITARY AND COMMERCIAL

Y	316SS/14P 200
P	316SS/14P eyelet contacts
YE	316SS/14P 200

- Military: M83723/90Y
Stainless Steel, Class Y,
200
- Military: M83723/90P
Stainless Steel, Class P,
Eyelet contacts
- Commercial: BTY-14
Stainless Steel, 'O' ring Seal,
200°C or 260°C
BFY-14
Stainless Steel, Static Dynamic
200°C or 260°C
BNY-14
Stainless Steel, Static Dynamic
Seal, Electro-deposited Nickel,
200°C or 260°C
- Commercial
ASD Designation: EN2997Y1YE1
Meets ASD Specifications, Stainless Steel,
ASD ASD 200
- Commercial - Meet
Society of British
Royce Standards: ESC10YE1
ESC11YE1
Scoop-proof Recessed pins

Commercial BTY, BFY and BNY meet

4 ASD

Shell sizes 20, 24 and 28, consult

Hermetic style receptacles are not

0

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

MIL-DTL-83723, Series III, Pyle®

Insert Availability and Identification, Alternate Keying Positions

38999

INSERT ARRANGEMENTS

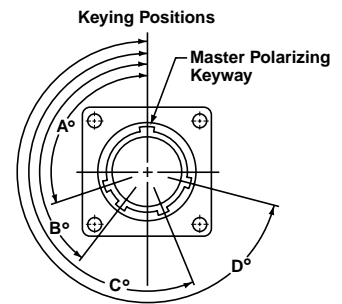
Shell Size/ Insert Arrangement	Service Rating	Total Contacts	Contact Size			
			8	12	16	20
08-03	I	3				3
08-98	I	3				3
10-02**	I	2				2
10-05	I	5				5
10-06	I	6				6
10-20	I	2			2	
12-03***	I	3			3	
12-12	I	12				12
14-04***	I	4		4		
14-07***	I	7			7	
14-12	I	12			3	9
14-15	I	15				15
16-10***	I	10			10	
16-24	I	24				24
18-08	I	8		8		
18-14***	I	14			14	
18-31	I	31				31
20-16***	I	16			16	
20-25	I	25		6		19
20-28**	I	28		4		24
20-39	I	39			2	37
20-41	I	41				41
22-12**	I	12		12		
22-19***	I	19			19	
22-27	I	27			27	
22-32**	I	32		6		26
22-39**	I	39			12	27
22-55	I	55				55
24-19†♦	I	19		19		
24-30†***	I	30			30	
24-43**	I	43			20	23
24-46†♦♦	I	46			4	40
24-57	I	57		2		55
24-61	I	61				61
28-41†	I	41			41	
28-42†***	I	42			42	
28-91†*	I	91				91

ALTERNATE KEYING POSITIONS (Rotation of key/keyway of shell)

more than one connector of the same size and arrangement, alternate

In the "Normal insert position"

"alternate keying positions"
indicated in the keying



Shown is Engaging Face View of Receptacle Shell with Keyways (Plug Shell Keys would be Opposite)

ALTERNATE KEYING POSITIONS OF SHELL

Shell Size	Polarizing Position	Key/Keyway Positions			
		A°	B°	C°	D°
8 thru 24	N	105	140	215	265
	6	102	132	248	320
8 & 10	7	80	118	230	312
	8	35	140	205	275
	9	64	155	234	304
10 only	Y††	25	115	220	270
12, 14, 16, 18, 20, 22, 24 and 28	6	18	149	192	259
	7	92	152	222	342
	8	84	152	204	334
	9	24	135	199	240
	Y††	98	152	268	338

ESC 11 (HTK SERIES) ONLY

Shell Size	Polarizing Position	Key/Keyway Positions			
		A°	B°	C°	D°
14 thru 24	N	95	145	220	255
	6	101	168	211	342
	7	18	138	208	268
	8	26	156	208	276
	9	120	161	225	336

), 34

oON 36
 NRE
 SERK RB E. 365
 NRE
 OCLUAPING CODE
 ♦ NRE
 NRE
 ♦♦ NRE
 SEASE OCLUAPING
 NRE
 365 AD NRE
 SE NRE

For ordering Pyle 83723 accessories, contact

For ordering information on Backshells, see

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- Matrix 1
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear
- Release
- Matrix
- 22992
- Class 1

- Back-
- Shells
- Options
- Others

Front face of pin insert or rear face of socket insert illustrated

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

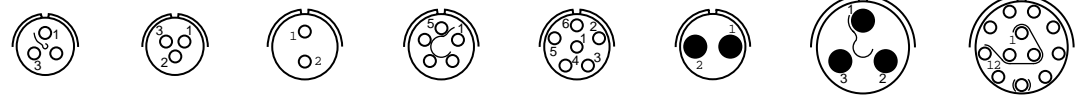
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

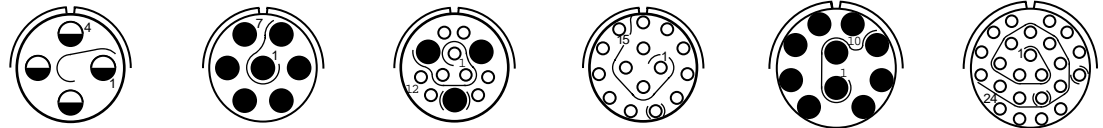
- 22992 Class I

- Back-Shells

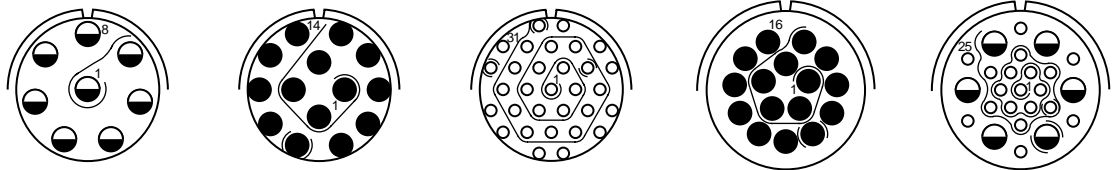
- Options Others



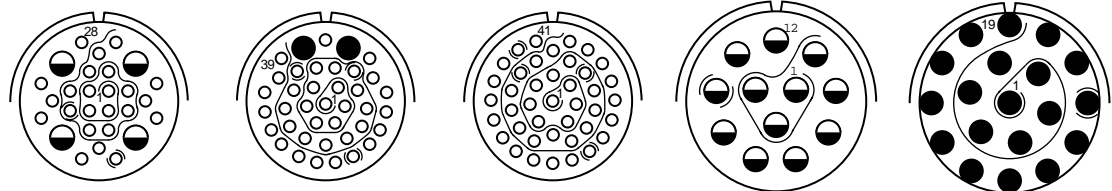
Insert Arrangement	08-03	08-98	10-02**	10-05	10-06	10-20	12-03***	12-12
Service Rating	I	I	I	I	I	I	I	I
Number of Contacts	3	3	2	5	6	2	3	12
Contact Size	20	20	20	20	20	16	16	20



Insert Arrangement	14-04***	14-07***	14-12**	14-15	16-10***	16-24
Service Rating	I	I	I	I	I	I
Number of Contacts	4	7	9	3	15	24
Contact Size	12	16	20	16	20	20



Insert Arrangement	18-08	18-14***	18-31	20-16***	20-25	
Service Rating	I	I	I	I	I	
Number of Contacts	8	14	31	16	19	6
Contact Size	12	16	20	16	20	12



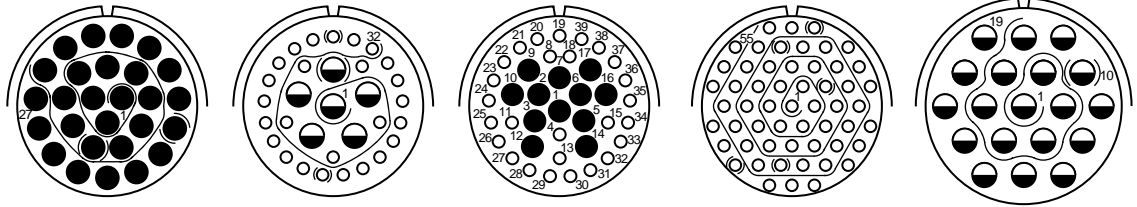
Insert Arrangement	20-28**	20-39	20-41	22-12**	22-19***		
Service Rating	I	I	I	I	I		
Number of Contacts	24	4	37	2	41	12	19
Contact Size	20	12	20	16	20	12	16

oCIN30
 NUMBER
 30X 13 12
 OCLIN30
 30X 13 12
 30X 13 12
 30X 13 12

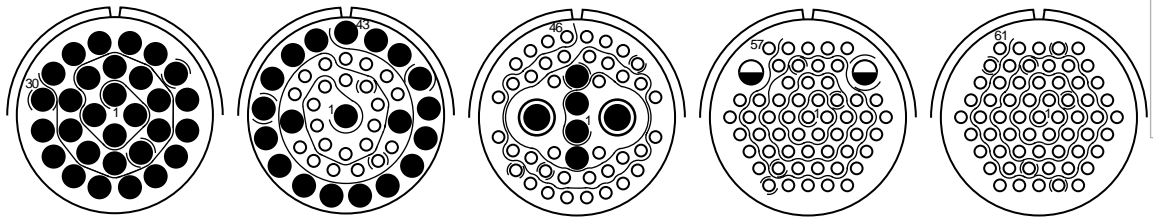


MIL-DTL-83723, Series III, Pyle® Insert Arrangements

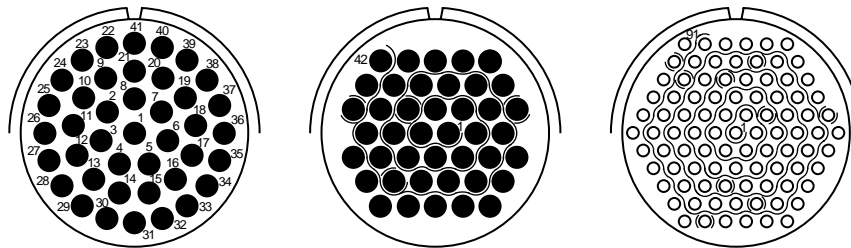
Front face of pin insert or rear face of socket insert illustrated



Insert Arrangement	22-27	22-32**		22-39**		22-55		24-19†♦
Service Rating	I	I		I		I		I
Number of Contacts	27	26	6	27	12	55		19
Contact Size	16	20	12	20	16	20		12



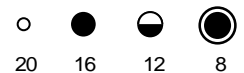
Insert Arrangement	24-30†***	24-43**		24-46†♦♦			24-57		24-61
Service Rating	I	I		I			I		I
Number of Contacts	30	23	20	40	4	2	55	2	61
Contact Size	16	20	16	20	16	8 Twinax	20	12	20



Insert Arrangement	28-41†	28-42†***	28-91†*
Service Rating	I	I	I
Number of Contacts	41	42	91
Contact Size	16	16	20

oCIN 30
NMBRE
8 16 12
CIRCUITRY
♦
♦♦
3EAGE
3ES AD
3E

CONTACT LEGEND



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

	1.	2.	3.	4.	5.
MIL-DTL-83723, Series III MILITARY	Connector Type M83723	Connector Style and Contact Type (Crimp) /82	Service Class G	Shell Size/ Insert Arrangement 16-24	Alternate Keying Position of Shell 6

	1.	2.	3.	4.	5.	6.	7.	8.
Amphenol® Pyle® MIL-DTL-83723, Series III COMMERCIAL	Connector Style BT	Service Class G	Shell Style -17	Shell Size/ Insert Arrangement 16-24	Contact Type S	Alternate Contact Finish or Without Contacts D	Alternate Keying Position of Shell 06	Variations XXX

Step 1. Military Connector Type

M83723	Designates MIL-DTL-83723 Series III Connectors
--------	--

Step 2. Select a Connector Style

	Designates
/71	A
/72	A
/73	A
/74	A
/75	A
/76	A
/82	A
/83	A
/84	A
/85	A
/86	A
/87	A
/95	A
/96	A
/97	A
/98	A

Step 3. Select a Service Class

	Designates
G	Stainless Steel
K	

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371. (except size 28 is not available in Bayonet Style)

First number represents Shell Size, second number is the Insert Arrangement

Step 5. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

Step 1. Select a Commercial Connector Style Designed to be Equivalent to M83723, Series III

	Designates
BT	
BY	

Step 2. Select a Service Class

	Designates
G	Stainless steel
K	

Step 3. Select a Shell Style

	Designates
-10	Straight Plug, Bayonet coupling only
-11	Straight Plug, Threaded coupling only
-12	Non-Decoupling Plug, Threaded coupling only
-17	
-19	

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371. (except size 28 is not available in Bayonet Style)

First number represents Shell Size, second number

Step 5. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Alternate Contact Finish or without Contacts

	Designates
D	OLD PER 3
E	

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

Step 8. Variations

*Supersedes MIL-C-39029

38999

Amphenol® Pyle®
MIL-DTL-83723, Series III
PYLE COMMERCIAL
DESIGNED TO MEET
G. E. SPECIFICATIONS

1.	2.	3.	4.	5.	6.	7.	8.
Connector Type	Shell Style	Shell Modification (Accessory Teeth)	Shell Size/ Insert Arrangement	Contact Type	Alternate Contact Finish or Without Contacts	Alternate Keying Position of Shell	Variations
BJ	-17	E	16-24	S	D	06	XXXX

Step 1. Select a Commercial Connector Type Designed to Meet General Electric Specifications

	Designates
BJ	Bayonet Plug
BJ8	Bayonet Plug with 8 Accessory Teeth
BN	Same as BJ except Electro-deposited Nickel Plated
BN8	Same as BN except Electro-deposited Nickel Plated
BNK	Same as BNK except Electro-deposited Nickel Plated

Step 2. Select a Shell Style

	Designates
-10	Bayonet Plug
-11	Threaded Straight Plug
-12	Threaded Non-Decoupling Plug
-17	Bayonet Plug with 8 Accessory Teeth
-19	Bayonet Plug with 8 Accessory Teeth and Keyway

Step 3. Select a Shell Modification

	Designates
E	360° Accessory Teeth per MS3155 Plug and Receptacle
F	Accessory Teeth on Plug only
G	Accessory Teeth on Receptacle only

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371.

First number represents Shell Size, second number is the

Step 5. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
K	Socket Contacts
S	Socket Contacts
L	Socket Contacts

Step 6. Alternate Contact Finish or without Contacts

	Designates
D	Alternate Contact Finish
E	Alternate Contact Finish

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

06

Step 8. Variations (Primarily Designed for General Electric)

	Designates
Y176	PER - 4 LASS
Y185	PER - 4 LASS
Y186	PER - 4 LASS
Y188	PER - 4 LASS

* Supersedes MIL-C-39029

4

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

MIL-DTL-83723, Series III
BOEING CO. DESIGNATION

1.	2.	3.	4.	5.	6.	7.	8.
Connector Type	Shell Style	Boeing Spec. Qualified Shell Size	Shell Modification (Accessory Teeth)	Boeing Spec. Qualified Insert Arrangement	Contact Style	Alternate Keying Position of Shell	Without Contacts Option
BACC63	CM	18	B	14	P	8	A

Amphenol® Pyle®
MIL-DTL-83723, Series III
PYLE COMMERCIAL EQUIV. TO BOEING BACC63CM/CN

1.	3.	4.	5.	6.	7.	8.	
Connector Type	Shell Style	Shell Modification (Accessory Teeth)	Shell Size/ Insert Arrangement	Contact Type	Alternate Contact Finish or Without Contacts	Alternate Keying Position of Shell	Variation
BSK	-12	E	18-14	P	D	08	XXX

Step 1. Boeing Co. Designation

BACC63	Designates MIL-DTL-83723 Series III Boeing Connectors
--------	---

Step 2. Select a Connector Type

	Designates
CM	
CN	

Step 3. Select a Boeing Specification Qualified Shell Size

12, 14, 16, 18, 20, 22, 24, 28

Step 4. Select a Shell Modification

	Designates
-	
B	360° Accessory Teeth per MS3155 Plug and Receptacle
D	on Plug only

Step 5. Select a Boeing Specification Qualified Insert Arrangement

12-03, 14-04, 14-07, 16-10, 18-14, 20-16, 22-19, 24-30, 28-42

Step 6. Select a Contact Type (Crimp)

	Designates
P	
S	

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

Step 8. Without Contacts Option

	Designates
A	

*Supersedes MIL-C-39029

Step 1. Commercial Connector Type Designed to be Equivalent to Boeing BACC63

	Designates
BSK	

Step 2. Select a Shell Style

	Designates
-12	
-17	

Step 3. Select a Shell Modification

	Designates
E	360° Accessory Teeth per MS3155 Plug and Receptacle
F	on Plug only

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371.

number represents Shell Size, second number is the Insert

Step 5. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
S	Socket Contacts

Step 6. Alternate Contact Finish or without Contacts

	Designates
D	
E	

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

Step 8. Variation

	Designates
Y126	



	1.	2.	3.	4.	5.	6.
MIL-DTL-83723, Series III	Connector Type	Service Class	Shell Style	Shell Size/Insert Arrangement	Contact Style	Alternate Keying Position of Shell
ASD DESIGNATION	EN2997	KE	6	16-24	F	6

Step 1. Select an ASD Designated/European Standards Connector Type

	Designates
EN2997	ASD Designation

Note: ASD supersedes AECMA Designation

Step 2. Select a Service Class

	Designates Standard Temperature Class
K	Threaded, Stainless Steel, 200°C
S	HERMETIC NONILG
Y	HERMETIC
	Designates High Temperature Class
KE	HERMETIC
SE	HERMETIC NONILG
YE	HERMETIC

Step 3. Select a Shell Style

	Designates
0	HERMETIC
1	Threaded, Solder Mount Receptacle, Hermetic only
6	Threaded Non-Decoupling Plug
7	HERMETIC RECEPT

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371.

First number represents Shell Size, second number is the ~~Pin~~

Step 5. Select a Contact Type (Crimp)

	Designates
M	Standard Pin Contacts
C	ON/VIT-CRIMP
A	Pin Insert less Contacts
F	Standard Socket Contacts
D	300K
B	Socket Insert less Contacts

Step 6. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

~~SERIES~~

~~CONTACT~~

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

Amphenol® Pyle® MIL-DTL-83723, Series III
PYLE COMMERCIAL DESIGNED TO MEET ASD & EUROPEAN STDS.

1.	2.	3.	4.	5.	6.	7.	8.	9.
Connector Type	Service Class	Shell Style	Shell Modification (Accessory Teeth)	Shell Size/Insert Arrangement	Contact Type	Alternate Contact Finish or Without Contacts	Alternate Keying Pos. of Shell	Variations
BT	G	-12	E	18-14	P	D	08	XXX

Step 1. Select a Commercial Connector Type Designed to Meet ASD/European Standards

	Designates
BT	
BJ	

Step 2. Select a Service Class

	Designates
G	Stainless steel
K	

Step 3. Select a Shell Style

	Designates
-12	Threaded, Non-Decoupling Plug
-17	
-19	

Step 4. Select a Shell Modification

	Designates
E	360° Accessory Teeth per MS3155 Plug and Receptacle
F	ACCESSORY SPRING ON PLUG ONLY

Step 5. Select a Shell Size & Insert Arrangement from chart on pg. 371.

First number represents Shell Size, second number is the

Step 6. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
S	Socket Contacts

Step 7. Alt. Contact Finish or without Contacts

	Designates
D	OLD PER 3
E	

Step 8. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

08

Step 9. Variations (Designed for Meeting European Specifications)

	Designates
Y144	
Y163	
Y175	Older designation superseded by Y144

*Supersedes MIL-C-39029



Rolls Royce Standards

MIL-DTL-83723,
Series III
MEETS SOCIETY OF BRITISH
AEROSPACE CO./
ROLLS ROYCE STANDARDS

	1.	2.	3.	4.	5.	6.	7.
	Connector Type	Service Class	Shell Style	Shell Size/ Insert Arrangement	Contact Type	Alternate Keying Position of Shell	Variations
	ESC10	KE	0	16-24	S	6	X

Step 1. Select a Connector Type that Meets European Specifications for Society of British Aerospace Co./Rolls Royce Standards

	Designates
ESC10	HERMETIC SOLDER MOUNT RECEPTACLE
ESC11	HERMETIC SOLDER MOUNT RECEPTACLE WITH SHIELDING

Step 2. Select a Service Class

	Designates High Temperature Class
KE	HERMETIC
SE	HERMETIC SOLDER MOUNT RECEPTACLE
YE	HERMETIC 260°C

Step 3. Select a Shell Style

	Designates
0	HERMETIC SOLDER MOUNT RECEPTACLE Y Teeth per MS3155
1	Threaded, Hermetic Solder Mount Receptacle
2	HERMETIC SOLDER MOUNT RECEPTACLE
3	HERMETIC SOLDER MOUNT RECEPTACLE
6	HERMETIC SOLDER MOUNT RECEPTACLE per MS3155

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371.

First number represents Shell Size, second number is the

Step 5. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
S	Socket Contacts

Styles 1, 2 and 3

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

5015
5015

Step 8. Variations

	Designates
O (Alpha)	Basic Connector, no Variations
A	CONNECTOR

38999

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

European Specifications – Scoop-Proof only

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

MIL-DTL-83723,
Series III
COMMERCIAL

1.	2.	3.	4.	5.	6.	7.
Connector Type	Shell Style	Shell Size/ Insert Arrangement	Contact Type	Contact Finish	Alternate Keying Position of Shell	Variations
HTK	12	16-24	S	D	06	XXXX

Step 1. Select a Commercial Connector Type Equivalent to ESC11 European Specifications

	Designates
HTK	Standard
HNK	Same as HTK except Electroless Nickel Plated
HSK	Same as HTK, except this is a special designator for Boeing Company

Step 2. Select a Shell Style

	Designates
-12	Recessed Pins
-17	Recessed Pins

Step 3. Select a Shell Size & Insert Arrangement from chart on pg. 371.

number represents Shell Size, second number is the Insert

Step 4. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts
S	Socket Contacts

Step 5. Select a Contact Finish or without Contacts

	Designates
D	Old Finish
E	Socket Contacts

Special High Temperature Contacts are another option -

Step 6. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

Step 7. Variations

	Designates
Y144	260°C
Y163	200°C

*Supersedes MIL-C-39029

	1.	2.	3.	4.	5.
	Connector Type	Connector Style and Contact Type (Crimp)	Service Class	Shell Size/ Insert Arrangement	Alternate Keying Position of Shell
MIL-DTL-83723, Series III MILITARY HERMETIC	M83723	/88	y	16-24	6

	1.	2.	3.	4.	5.	6.	7.	8.
	Connector Style	Shell Style	Shell Size/ Insert Arrangement	Contact Type	Contact Style	Alternate Contact Finish	Alternate Keying Position of Shell	Variations
Amphenol® Pyle® MIL-DTL-83723, Series III COMMERCIAL HERMETIC	BTY	-17	16-24	S	1	D	06	XXXX

Step 1. Military Connector Type

M83723	Designates MIL-DTL-83723 Series III Connectors
--------	--

Step 2. Select a Military Hermetic Connector Style

	Designates
/88	Hermetic, Threaded Solder Mounted Receptacle
/89	Hermetic, Threaded Solder Mounted Receptacle
/90	Hermetic, Threaded Solder Mounted Receptacle

Step 3. Select a Service Class

	Designates
Y	Contacts
P	Contacts

Step 4. Select a Shell Size & Insert Arrangement from chart on pg. 371.

(Except sizes 24 and 28 are not available in Hermetic Styles.)
First number represents Shell Size, second number is the Insert Arrangement

Step 5. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

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99

Step 1. Select a Commercial Hermetic Connector Style

	Designates
BTY	Hermetic, Threaded, Stainless Steel, Electro-deposited Seal
BFY	Hermetic, Threaded, Stainless Steel, Electro-deposited Seal
BNY	Hermetic, Threaded, Stainless Steel, Electro-deposited Seal

Step 2. Select a Shell Style

	Designates
-17	Shell Style
-19	Shell Style
-14	Solder Mounted Receptacle

Step 3. Select a Shell Size & Insert Arrangement from chart on pg. 371.

(Except sizes 24 and 28 are not available in Hermetic Styles.)
First number represents Shell Size, second number is the Insert Arrangement

Step 4. Select a Contact Type (Crimp)

	Designates
P	Pin Contacts

Step 5. Select a Contact Style

	Designates
1	Contact Style
4	Eyelet Contacts

Step 6. Alternate Contact Finish

	Designates
D	PER-),4,))) OLD
V	OLD

Step 7. Select an Alternate Keying Position - Rotation of master key/keyway of shell.

06
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99

Step 8. Variations

	Designates
Y144	APALTYFER - 4 LASS
Y163	APALTYFER - 4 LASS
Y186	APALTYFER - 4 LASS
Y188	APALTYFER - 4 LASS

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

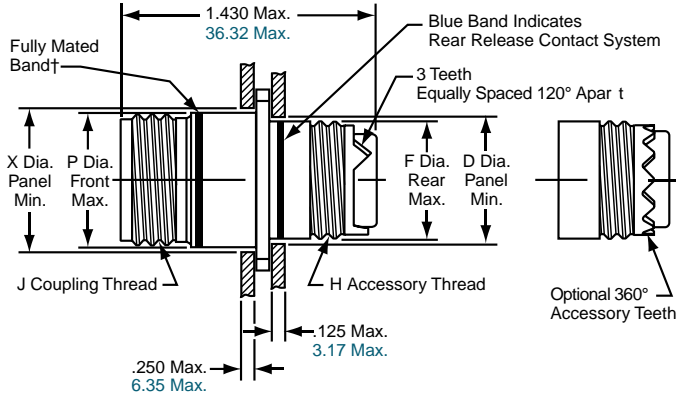
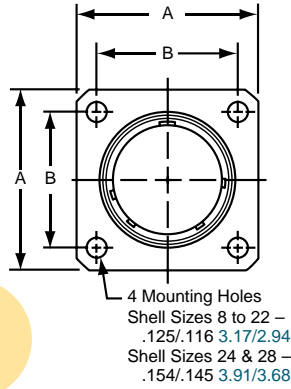
Back-Shells

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART #

M83723/82 / M83723/83
 BT ()-17
 BJ/BJ8/BN/BN8/BNK-17
 BACC63CN
 BSK-17
 EN2997()0
 BT ()/BJ ()-17
 ESC10()0
 ESC11()0
 HTK/HNK/HSK-17



See Quick Reference page 365 for the

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

give complete part number

Inches

Shell Size	A ±.005	B ±.005	D Dia. Panel Min.	F Dia. Rear Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2A	P Dia. Front Max.	X Dia. Panel Min.
8					5 .	5 .		
10					5 .	5 .		
12					5 .	5 .		
14					5 .	5 .		
16					5 .	5 .		
18					5 .	5 .		
20					5 .	5 .		
22					5 .	5 .		
24					5 .	5 .		
28					5 .	5 .		

Millimeters

Shell Size	A	B	A Panel IN	A Rear AX	A Front AX	A Panel IN
8						
10						
12						
14						
16						
18						
20						
22						
24						
28						

EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

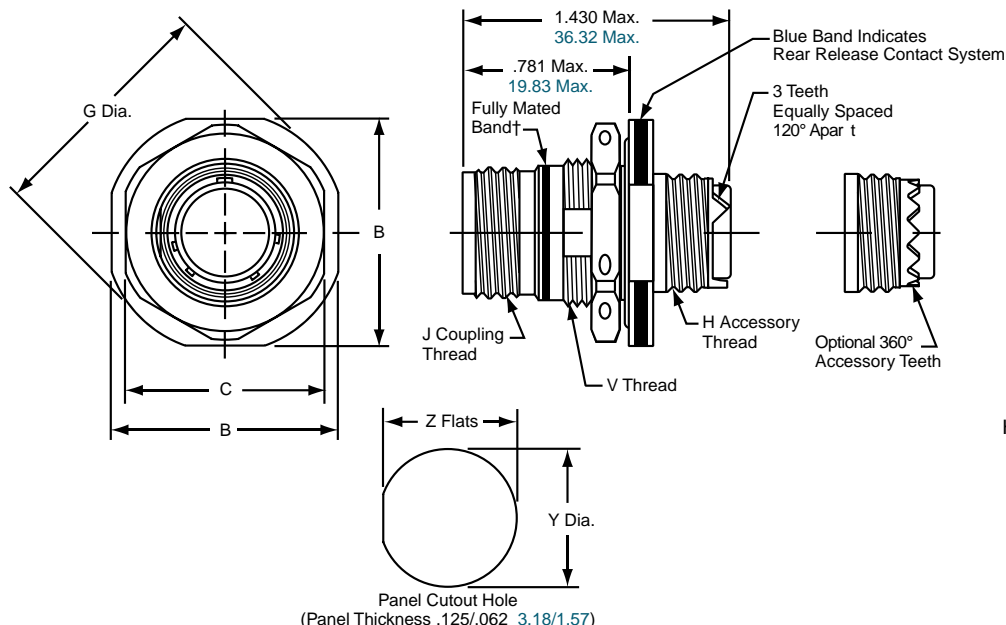
5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

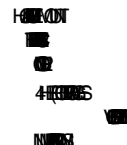
*AMPHENOL



PART

M83723/84 / M83723/85
 BT()-19
 BJ/BJ8/BN/BN8/BNK-19
 EN2997()7
 BT()/BJ()-19

See Quick Reference page 366 for the variety of ordering options



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

Inches

Shell Size	B Max.	C Hex Max.	G Dia. Max.	H Accessory Thread Class 2A	J Coupling Thread Class 2A	V Thread Class 2A	Y Dia. ±.005	Z Flats ±.005
8				5.	5.	5.		
10				5.	5.	5.		
12				5.	5.	5.		
14				5.	5.	5.		
16				5.	5.	5.		
18				5.	5.	5.		
20				5.	5.	5.		
22				5.	5.	5.		
24				5.	5.	5.		
28			-	5.	5.	5.		

Millimeters

Shell Size	B AX	C Hex AX	A AX	GA	Z Flats
8					
10					
12					
14					
16					
18					
20					
22					
24					
28			-		

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

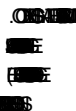
26500
Pyle

5015
Crimp Rear Release Matrix

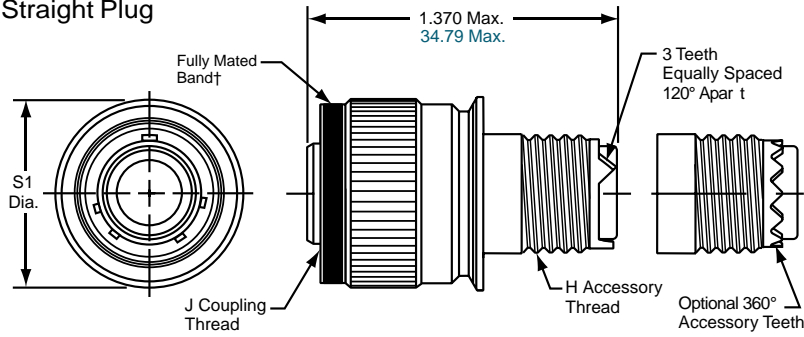
22992
Class 1

Back-Shell

Options
Others



Straight Plug



PART # STRAIGHT PLUG

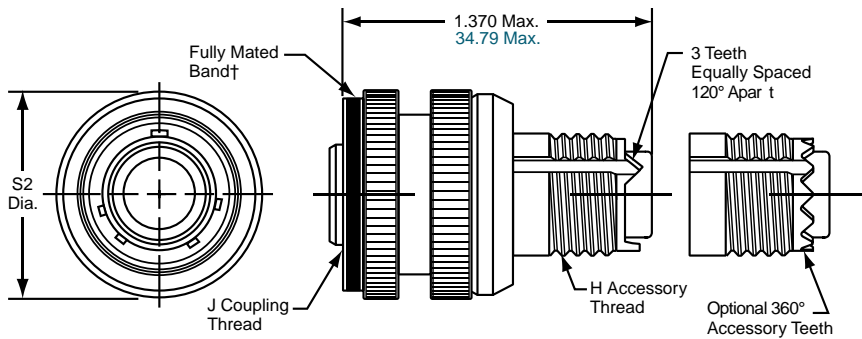
M83723/86 / M83723/87

BT()-11

BJ/BJ8/BN/BN8/BNK-11

See Quick Reference page 367 for the variety of

Non-Decoupling Plug



PART # NON-DECOUPLING PLUG

M83723/95 / M83723/96

M83723/97 / M83723/98

BT()-12

BJ/BJ8/BN/BN8/BNK-12

BACC63CM

BSK-12

EN2997()6

BT()/BJ()-12

ESC10()6

ESC11()6

HTK/HNK/HSK-12

See Quick Reference page 367 for the variety of



Inches

Shell Size	H Accessory Thread Class 2A	J Coupling Thread Class 2A	S1 Dia. Max.	S2 Dia. Max.
8	5.	5.		
10	5.	5.		
12	5.	5.		
14	5.	5.		
16	5.	5.		
18	5.	5.		
20	5.	5.		
22	5.	5.		
24	5.	5.		
28	5.	5.		

Millimeters

Shell Size	3A -AX	3A -AX
8		
10		
12		
14		
16		
18		
20		
22		
24		
28		

Shell sizes 8 and 10 are not available in Boeing

Boeing designations are in non-decoupling plugs

3 APOEAS G DE non-decoupling plugs only, not in straight plug

Bayonet style non-decoupling plugs are not

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

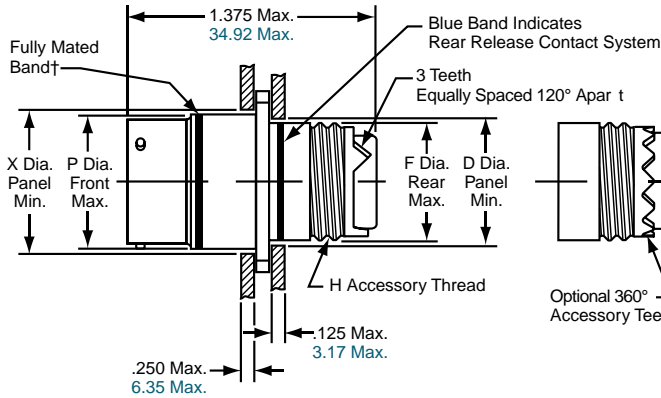
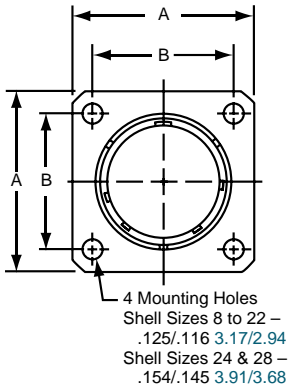
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

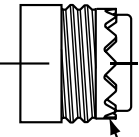
- 22992
- Class I

- Back-Shells

- Options
- Others



PART #
M83723/71 / M83723/72
BY()-17



See Quick Reference page 368 for the

0
A
B

Inches

Shell Size	A ±.005	B ±.005	D Dia. Panel Min.	F Dia. Rear Max.	H Accessory Thread Class 2A	P Dia. Front Max.	X Dia. Panel Min.
8					5 .		
10					5 .		
12					5 .		
14					5 .		
16					5 .		
18					5 .		
20					5 .		
22					5 .		
24					5 .		

Millimeters

Shell Size	A	B	A Panel IN	A Rear AX	ØA Front AX	ØA Panel IN
8						
10						
12						
14						
16						
18						
20						
22						
24						

0
A
B

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix
- 22992 Class 1

- Back-Shells
- Options Others

*AVDEQ

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

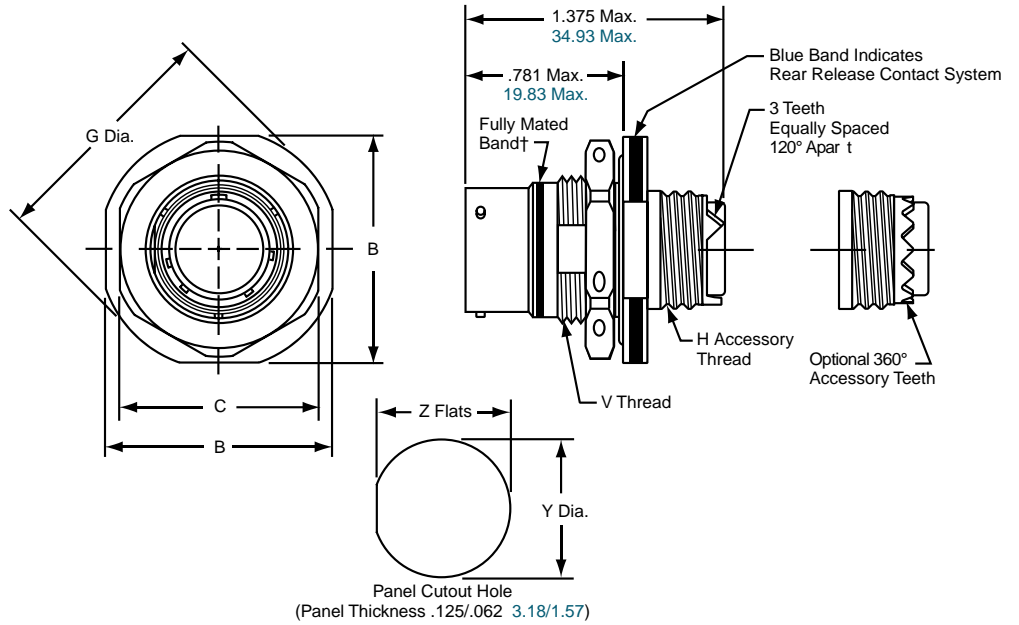
PART #

M83723/73 / M83723/74

BY()-19

See Quick Reference page 368 for the variety of ordering options for

XXXX
XXXX
XXXX
XXXX



XXXX
XXXX
XXXX

Inches

Shell Size	B Flats Max.	C Hex Max.	G Dia. Max.	H Accessory Thread Class 2A	V Thread Class 2A	Y Dia. ±.005	Z Flats ±.005
8				5.	5.		
10				5.	5.		
12				5.	5.		
14				5.	5.		
16				5.	5.		
18				5.	5.		
20				5.	5.		
22				5.	5.		
24				5.	5.		

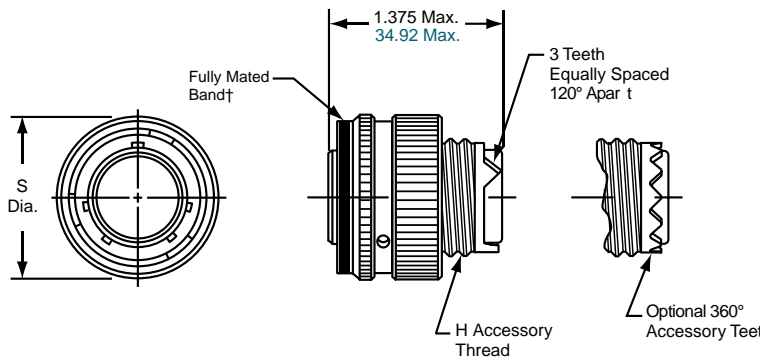
Millimeters

Shell Size	B Flats -AX	C Hex -AX	A -AX	9A	Z Flats
8					
10					
12					
14					
16					
18					
20					
22					
24					

XXXX
XXXX
XXXX
XXXX
XXXX

MIL-DTL-83723, Series III, Pyle®

Straight Plug, Bayonet Coupling



PART #
M83723/75 / M83723/76
BY()-10

See Quick Reference page 368 for the variety of ordering options for

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

0
A
C

Inches

Shell Size	H Accessory Thread Class 2A	S Dia. Max.
8	5 .	
10	5 .	
12	5 .	
14	5 .	
16	5 .	
18	5 .	
20	5 .	
22	5 .	
24	5 .	

Millimeters

Shell Size	3A AX
8	
10	
12	
14	
16	
18	
20	
22	
24	

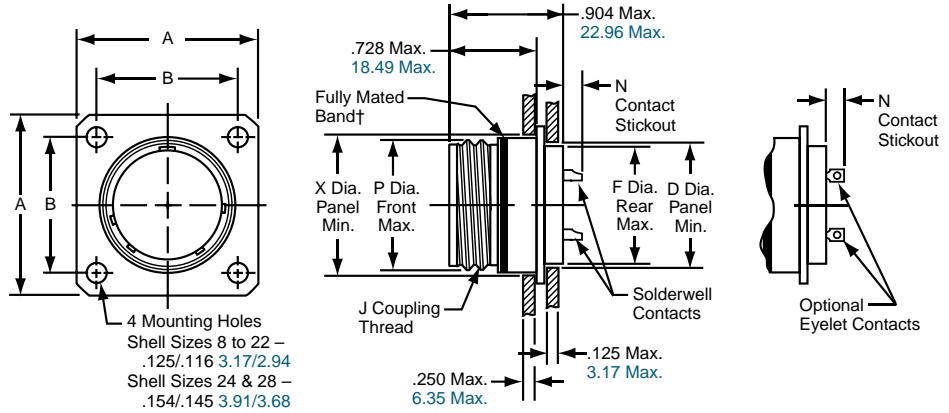
3
S
B



Threaded Coupling

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

PART #
M83723/88Y / M83723/88P
BTY/BFY/BNY-17
EN2997Y0/YE0
ESC10YE2
ESC11YE2



See Quick Reference page 369 for the variety of ordering options

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 26500 Pyle

Inches

Shell Size	A ±.010	B ±.005	D Dia. Panel Min.	F Dia. Rear Max.	J Coupling Thread Class 2A	N Contact Stickout		P Dia. Front Max.	X Dia. Panel Min.
						Size 20 Contacts	Size 12 & 16 Contacts		
8					5.				
10					5.				
12					5.				
14					5.				
16					5.				
18					5.				
22					5.				

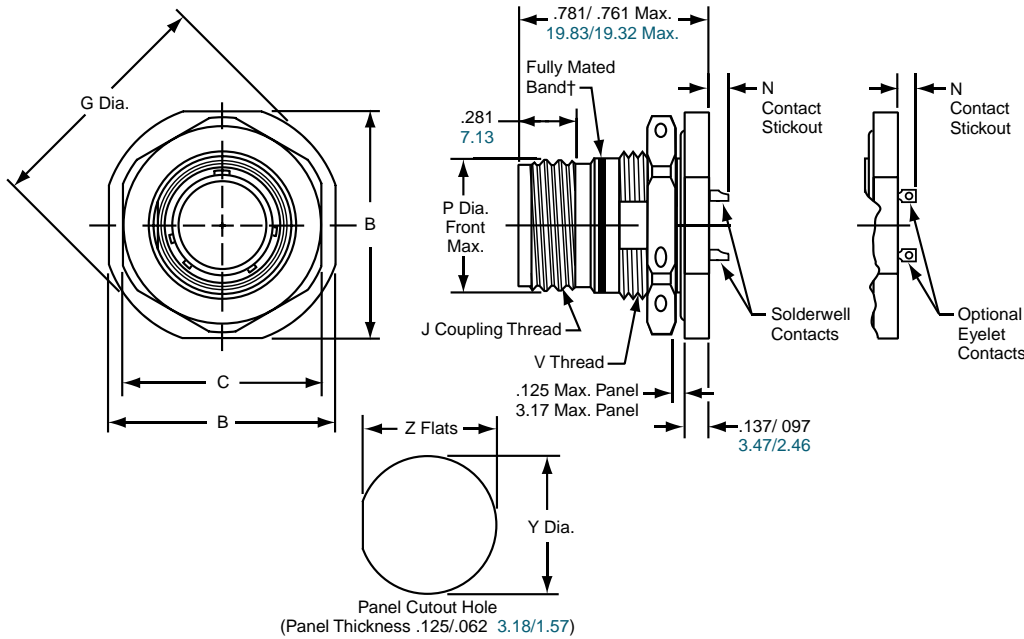
Millimeters

Shell Size	A	B	IA Panel -IN	IA Rear -AX	OA Front -AX	OA Panel -IN
8						
10						
12						
14						
16						
18						
22						

- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others



Threaded Coupling



PART

M83723/89Y / M83723/89P
 BTY/BFY/BNY-19
 EN2997Y7 / YE7
 ESC10YE3
 ESC11YE3

See Quick Reference page 369 for the variety of ordering options for

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

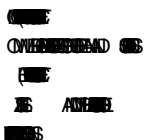


Inches

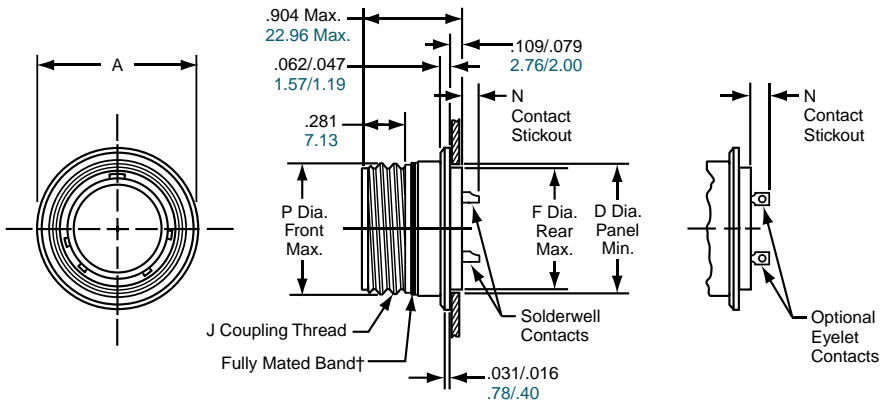
Shell Size	B Flats Max.	C Hex Max.	G Dia. Max.	J Coupling Thread Class 2A	N Contact Stickout		P Dia. Front Max.	V Thread Class 2A	Y Dia. ±.005	Z Flats ±.005
					Size 20 Contacts	Size 12 & 16 Contacts				
8				5.			5.			
10				5.			5.			
12				5.			5.			
14				5.			5.			
16				5.			5.			
18				5.			5.			
22				5.			5.			

Millimeters

Shell Size	B Flats -AX	C Hex -AX	IA -AX	N Contact Stickout		IA Front -AX	IA	Z Flats
				Size 20 Contacts	Size 12 & 16 Contacts			
8								
10								
12								
14								
16								
18								
22								



Threaded Coupling



PART #
M83723/90Y / M83723/90P
BTY/BFY/BNY-14
EN2997Y1 / YE1
ESC10YE1
ESC11YE1

See Quick Reference page 370 for the variety of ordering options for

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

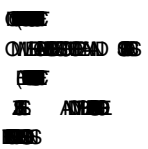


Inches

Shell Size	A Dia. ±.010	D Dia. Panel Min.	F Dia. Rear Max.	J Coupling Thread Class 2A	N Contact Stickout		P Dia. Front Max.
					Size 20 Contacts	Size 12 & 16 Contacts	
8				5 .			
10				5 .			
12				5 .			
14				5 .			
16				5 .			
18				5 .			
22				5 .			

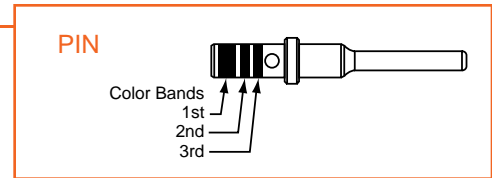
Millimeters

Shell Size	A	A Panel -N	A Rear -AX	A Front -AX
8				
10				
12				
14				
16				
18				
22				



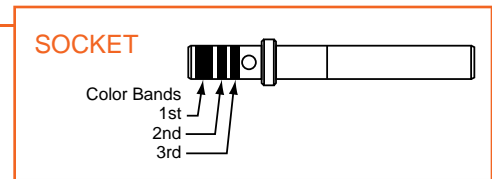
STANDARD CRIMP CONTACTS - PIN PART NUMBERS / COLOR BANDS

Contact Size	Pin MS Spec Number	Pin Pyle Part Number	Pin Color Bands		
			1st Band	2nd Band	3rd Band
20	-	BA-4020-36LD	Red	Red	Black
16	-	BA-4016-36LD	Red	Red	
12	-	BA-4012-36LD	Red	Red	Orange



STANDARD CRIMP CONTACTS - SOCKET PART NUMBERS / COLOR BANDS

Contact Size	Socket MS Spec Number	Socket Pyle Part Number	Socket Color Bands		
			1st Band	2nd Band	3rd Band
20	-	BA-4120-36LD	Red	Red	
16	-	BA-4116-36LD	Red	Red	Blue
12	-	BA-4112-36LD	Red	Red	Black



STANDARD CRIMP CONTACT RATING

Contact Size	Test Current Standard	Crimp Well Data			
		Well Diameter		Min. Well Depth	
		Inches	Millimeters	Inches	Millimeters
20					
16					
12					

STANDARD SEALING PLUGS

Contact Size	Sealing Plug MS Number	Sealing Plug Pyle Number	Color
20	MS27488-20	BA-4020-59P	Red
16	MS27488-16	BA-4016-59P	Blue
12	MS27488-12	BA-4012-59P	Black

TOOLS

Contact Size	Crimp Tool		Adjustable Turret		Checking Gauge for M22520/1-01 Crimping Tool		Insertion/Removal Tool		
	MS Number	Pyle Number	MS Number	Pyle Number	MS Number	Pyle Number	MS Number	Pyle Number	Amphenol Number*
20							-	TP-201343-20-BA	10-538988-201
16	-	TP-201354	-	TP-201355	-	TP-201356	-	TP-201343-16-BA	10-538988-016
12							-	TP-201343-12-BA	10-538988-012

~~MS27488-12~~ supersedes Pyle number

BACKSHELLS

The section of this catalog called "Backshells" covers the backshells for MIL-DTL-83723, Series III Pyle connectors that are

~~MS27488-12~~, 4, ~~MS27488-16~~, 4, -3 -), 4, ~~MS27488-20~~

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

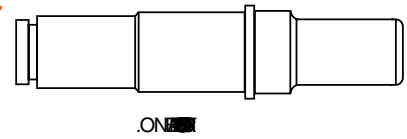
Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optic
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

SHIELDED CONCENTRIC TWINAX CONTACTS

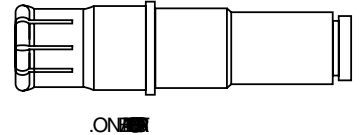
Contact Size	Cable Accommodation	Concentric Twinax Pin
20		BA-46T08-LD
16	PAN 6421 or JN1060ZB002	BA-46TA08-LD

CONCENTRIC
47).8 0).



Contact Size	Cable Accommodation	Concentric Twinax Socket
20		BA-47T08-LD
16	PAN 6421 or JN1060ZB002	BA-47TA08-LD

CONCENTRIC
47).8 3 + 4



**THERMOCOUPLE - PIN
PART NUMBERS / COLOR BANDS**

Contact Size	Material	Thermocouple Pin Pyle Part Number	Thermocouple Pin Color Bands		
			1st Band	2nd Band	3rd Band
20	Chromel	BT-4020-10P	Red	Orange	Green
20	Alumel	BT-4020-10R	Red	Orange	Blue
16	Chromel	BA-4016-10P	Green	Red	Violet
16	Alumel	BA-4016-10R	Green	Red	Blue

**THERMOCOUPLE - SOCKET
PART NUMBERS / COLOR BANDS**

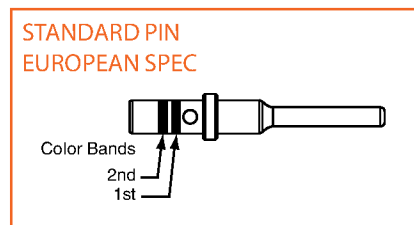
Contact Size	Material	Thermocouple Socket Pyle Part Number	Reference Thermocouple Socket MS Part Number	Thermocouple Socket Color Bands		
				1st Band	2nd Band	3rd Band
20	Chromel	BT-4120-10P	-	Red	Blue	Red
20	Alumel	BT-4120-10R	-	Red	Blue	Black
16	Chromel	BT-4116-10P	2E	Green	Red	Red
16	Alumel	BT-4116-10R	2E	Green	Red	Red

**STANDARD & HIGH TEMPERATURE CRIMP CONTACTS
WIRE SEALING DIAMETERS / STRIPPING LENGTHS**

Contact Size	Wire Size (AWG)	Finished Wire Outside				Stripping Lengths			
		Minimum		Maximum		Minimum		Maximum	
		Inches	Millimeters	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters
20	24, 22, 20								
16	20, 18, 16								
12	14, 12								

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS STANDARD CRIMP - PIN PART NUMBERS / COLOR BANDS

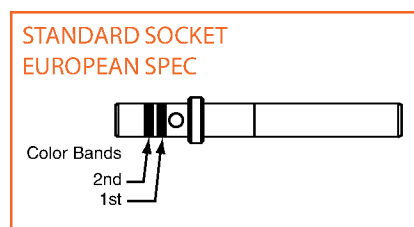
Contact Size	Pin Pyle Part Number	Pin Color Bands		
		1st Band	2nd Band	Dot
20	BA-4020-36LD-Y165	Red	Red	-
20/18*	BA-402018-36LD-Y165	Red	Violet	-
16	BA-4016-36LD-Y165	Blue	Blue	-
12	BA-4012-36LD-Y165	Yellow	Yellow	-



First band color is for contact size
2nd band color is for AWG wire size

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS STANDARD CRIMP - SOCKET PART NUMBERS / COLOR BANDS

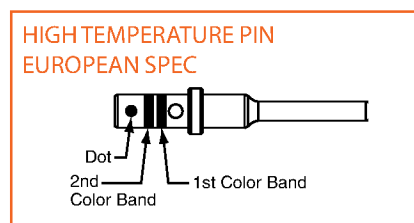
Contact Size	Socket Pyle Part Number	Socket Color Bands		
		1st Band	2nd Band	Dot
20	BA-4120-36LD-Y165	Red	Red	-
20/18*	BA-412018-36LD-Y165	Red	Violet	-
16	BA-4116-36LD-Y165	Blue	Blue	-
12	BA-4112-36LD-Y165	Yellow	Yellow	-



First band color is for contact size
2nd band color is for AWG wire size

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS HIGH TEMPERATURE - PIN PART NUMBERS / COLOR BANDS

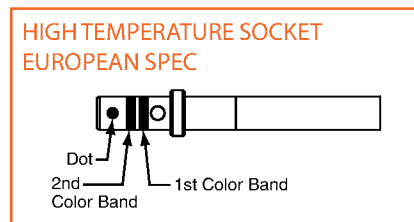
Contact Size	Pin Pyle Part Number	Pin ESC30 Part Number	Pin Color Bands		
			1st Band	2nd Band	Dot
20	BA-4020-50LD	ESC30-P20BC	Red	Red	White
20/18*	BA-402018-50LD	-	Red	Violet	White
16	BA-4016-50LD	ESC30-P16BC	Blue	Blue	White
12	BA-4012-50LD	ESC30-P12BC	Yellow	Yellow	White



First band color is for contact size
2nd band color is for AWG wire size
Dot identifies High Temperature or Thermocouple contacts

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS HIGH TEMPERATURE - SOCKET PART NUMBERS / COLOR BANDS

Contact Size	Socket Pyle Part Number	Socket ESC30 Part Number	Socket Color Bands		
			1st Band	2nd Band	Dot
20	BA-4120-50LD	ESC30-S20BC	Red	Red	White
20/18*	BA-412018-50LD	-	Red	Violet	White
16	BA-4116-50LD	ESC30-S16BC	Blue	Blue	White
12	BA-4112-50LD	ESC30-S12BC	Yellow	Yellow	White



First band color is for contact size
2nd band color is for AWG wire size
Dot identifies High Temperature or Thermocouple contacts

* #20 contacts with #18 crimpwell

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others



38999

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS
THERMOCOUPLE - PIN
PART NUMBERS / COLOR BANDS

Contact Size	Material	Pin Pyle Part Number	Pin ESC30 Part Number	Pin Color Bands		
				1st Band	2nd Band	Dot
20	Chromel	BT-4020-10P-Y165	ESC30-P20NC	Red	Red	VE
20	Alumel	BT-4020-10R-Y165	ESC30-P20NA	Red	Red	Black
	Chromel	BT-402018-10P-Y165	-	Red	Violet	VE
	Alumel	BT-402018-10R-Y165	-	Red	Violet	Black
16	Chromel	BT-4016-10P-Y165	ESC30-P16NC	Blue	Blue	VE
16	Alumel	BT-4016-10R-Y165	ESC30-P16NA	Blue	Blue	Black

CONTACTS THAT MEET EUROPEAN SPECIFICATIONS
THERMOCOUPLE - SOCKET
PART NUMBERS / COLOR BANDS

Contact Size	Material	Socket Pyle Part Number	Socket ESC30 Part Number	Socket Color Bands		
				1st Band	2nd Band	Dot
20	Chromel	BT-4120-10P-Y165	ESC30-S20NC	Red	Red	VE
20	Alumel	BT-4120-10R-Y165	ESC30-S20NA	Red	Red	Black
	Chromel	BT-412018-10P-Y165	-	Red	Violet	VE
	Alumel	BT-412018-10R-Y165	-	Red	Violet	Black
16	Chromel	BT-4116-10P-Y165	ESC30-S16NC	Blue	Blue	VE
16	Alumel	BT-4116-10R-Y165	ESC30-S16NA	Blue	Blue	Black

HIGH TEMPERATURE
SEALING PLUGS

Contact Size	Sealing Plug Pyle Number	Color
20	BT-4020-60P	Red
16	BT-4016-60P	Blue
12	BT-4012-60P	VE

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options
Others


Amphenol MIL-DTL-26500, Pyle[®]



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s MS27614	425-431

 New/Featured



MIL-DTL-26500, Pyle[®] Typical Markets:

- s Military & Commercial Aviation
- s High Temperature Applications
- s Meets Boeing Specifications
- s Missiles & Ordnance

Amphenol
Aerospace

38999
III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH
SPEED
Fiber
Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

██████████
██████████, 4, ██████████
██████████
██████████, 4, ██████████
██████████

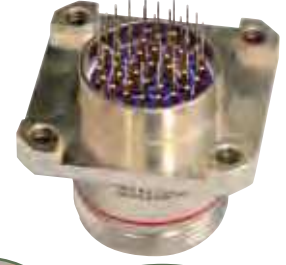
Aluminum Connectors - Military Classes R and G; Proprietary (ZZY, ZZW)

██████████
s ██████████
s ██████████
s ██████████
s ██████████
██████████ resistance path through the shell for grounding purposes
s ██████████ 3 B
██████████



Stainless Steel Connectors - Military Class E; Proprietary (ZZY, ZZW)

s ██████████
s ██████████
s ██████████
s ██████████
██████████ at elevated temperatures, 204°C (399°F)
██████████



Firewall Connectors – Military Class K; Proprietary (FPK, FYL)

s ██████████, 4, ██████████
s ██████████
s 0, ██████████
s 0+ ██████████
s ██████████
██████████ elevated temperatures up to 460°F f or extended periods
s ██████████



48 Series Receptacle Short Skirt - Amphenol special application connector

██████████
s ██████████
s ██████████

Hermetic Connectors - Military Class H; Proprietary (ZZL, ZZB)

s ██████████
s ██████████
██████████



Contacts and Accessories for MIL-DTL-26500 connectors

s 3 3 ██████████
██████████
s ██████████
s ██████████
██████████
██████████ (CBA), 4, B

Commercial Design with PC Tail Contacts

██████████
s ██████████
s ██████████
s ██████████



MIL-DTL-26500, Pyle® Connectors Features and Class Descriptions

Amphenol®), 4, ()
(), 4, ()
()
()
(), 4, ()

MIL-DTL-26500 Classes	MIL-DTL Pyle Series Classes	Material Description	Finish
() () () Resistant)	A	Aluminum Alloy	Black ()
()	M	Aluminum Alloy	Chromium
()	R	Stainless Steel	Passivated
() 0+ 9,		Stainless Steel	Passivated
Class H Hermetic	HC	() Steel	()

Crimp Contacts

Rear-insertable, front-releasable, crimp style contacts are machined from a copper alloy material, plated gold over nickel, and are qualified () 3

Contacts are crimp terminated outside the connector assembly and ()

Alternate Keying

(), 4, ()
()
() alternate keys in relation to the fixed master key determines the key ()

Connector Sealing

() and thus protect the connector from potential degradation due to ()

() assembly is physically bonded and mechanically retained to the inside surface of the stainless steel shell, providing a void-less, mono-block ()

A pressure seal at the connector interface is accomplished through the ()

Fluid/Temperature Resistance

() exceeds all specification requirements and provides excellent resistance ()

- MIL-DTL AD
- (), ()
- MIL-L-9236 lubricating oil
- MIL-L-7808 and MIL-L-23699 lubricating oils
- MIL-J-5624 (JP-5) jet fuel

() Connectors have the capability of resisting high ambient temperatures up to 200°C (392°F) for long periods of time, thus contributing to an ()

() and internal temperature due to thermal rise of current carrying ()

Amphenol® () to resist high temperatures up to 460°F (total temperature) for extended periods of time and can resist short time exposures (20 minutes) to ()



38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shell

Options
Others

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

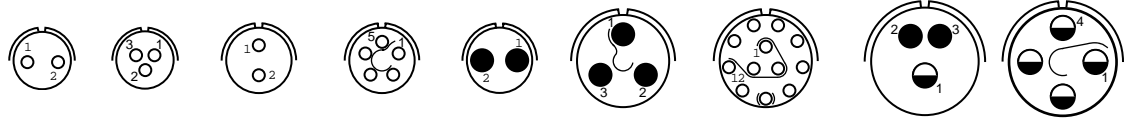
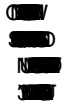
- Back-Shells

- Options Others

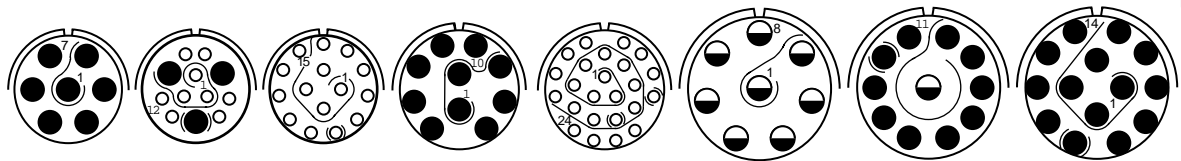
434 2 1 5) 2 - .43	-,),42 930)) 4).3	09, . . 4 2 0),43
FRAMES 2 +		Comply
Altitude Immersion LASS 2 +	Sea level 1 inch of mercury, 3 cycles (IR 5000 megohms hi-pot 1500 volts-submerged)	Comply
Contact Retention LASS 2 +	3E 00N 3E 00N 3E 00N	XCHSBS
Collet Retention	.0	Without damage to the collet or its 3E n 00N 3E n 00N 3E n 00N
Contact Insertion Force LASS 2 +	MAX	Comply
Coupling Forces	Torque required to couple and uncouple mating plugs 8 10 12 14 16 18 20 22 24 9 10 14 17 23 26 31 38 46	Comply
Fluid Resistance LASS 2 +	NEVER), (), , LEVER	NEVER NEVER NEVER
ROUNDS	NEVER	Comply
High Potential LASS 2 +	62-3MDOUA 62-3MD BAF	XCHSBS
LASS 2 +	NEVER	XCHSBS
Insulation Resistance LASS 2 +	NEVER /	XCHSBS
LASS 2 +	-55°C (-67°F)	Comply
Magnetic Permeability LASS 2 +	MAXIM	Comply
Moisture Resistance LASS 2 +	NEVER), 34 NEV	Comply
ZONES 2 +	D 0E	Comply
Physical Shock LASS 2 +	SE), 34 NEV 0E	Comply
3NDXEF LASS 2 +	.00N	EE-), 0E
Temperature Life LASS 2 +	Connector fully functional for 1000 hours at 200°C (392°F) ambient internal temperature 238°C (460°F)	Comply
Thermal Shock (Mated) LASS 2 +	Cycled five times from -55°C to 260°C , held for 30 minutes at each NEVER	Comply
LASS 2 +	3TD NEV 0E AD	0E 0E
Flame Resistance (Class K)	NEVER Fireproof (Class K of MIL-DTL-5015D)	XCHSBS

MIL-DTL-26500, Pyle® Insert Arrangements

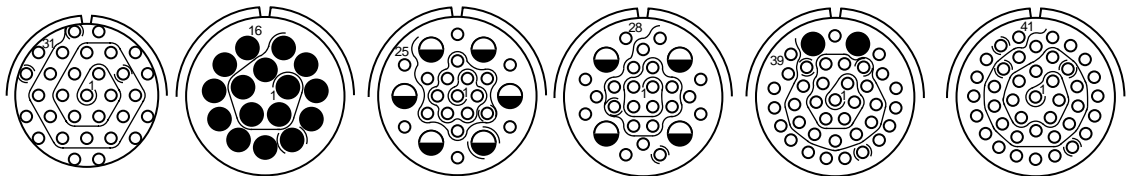
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



Insert Arrangement	08-02	08-03 ^H	10-02 ^{**}	10-05 ^H	10-20 ^H	12-03 ^{KH}	12-12 ^H	14-03	14-04 ^K
Service Rating	I	I	I	I	I	I	I	I	I
Number of Contacts	2	3	2	5	2	3	12	2	4
Contact Size	20	20	20	20	16	16	20	16	12
								12	12
								Shielded Coaxial	



Insert Arrangement	14-07 ^{KH}	14-12	14-15 ^{KH}	16-10 ^{KH}	16-24 ^{KH}	18-08 ^{KH}	18-11	18-14 ^{KH}
Service Rating	I	I	I	I	I	I	1	I
Number of Contacts	7	9	3	15	10	24	8	10
Contact Size	16	20	16	20	16	20	12	16
								12
								Shielded Coaxial



Insert Arrangement	18-31 ^{KH}	20-16	20-25	20-28 ^{**}	20-39	20-41
Service Rating	I	I	I	I	I	I
Number of Contacts	31	16	19	6	24	4
Contact Size	20	16	20	12	20	12
					37	2
					20	16
						41
						20

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

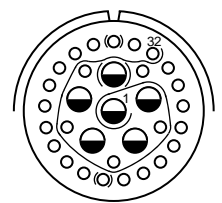
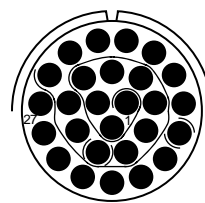
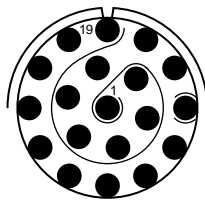
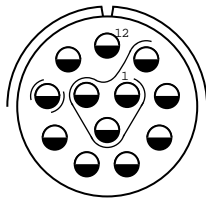
AMPHENOL
CORPORATION
HARTFORD, CT



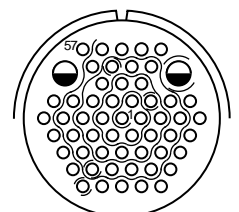
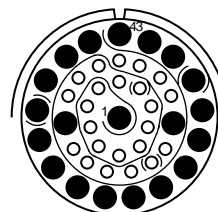
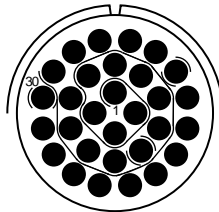
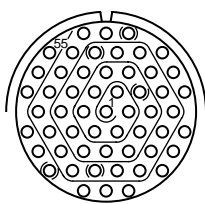
.4 4 , .

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

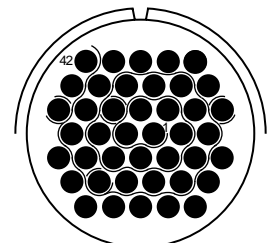
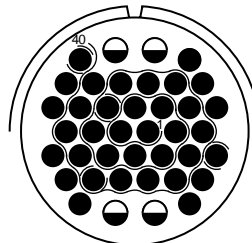
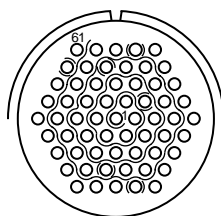
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



Insert Arrangement	22-12 ^K	22-19 ^{KH}	22-27 ⁺	22-32
Service Rating	I	I	I	I
Number of Contacts	12	19	27	26
Contact Size	12	16	16	20 6 12



Insert Arrangement	22-55 ^{KH}	24-30 ⁺ ^K	24-43 ^{**}	24-57
Service Rating	I	I	I	I
Number of Contacts	55	30	23	55
Contact Size	20	16	20 16 20 16	20 2



Insert Arrangement	24-61	28-40 ⁺ ^K	28-42 ⁺ ^K
Service Rating	I	I	I
Number of Contacts	61	36	42
Contact Size	20	16 4 12	16

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix

SON-ONE
K
H



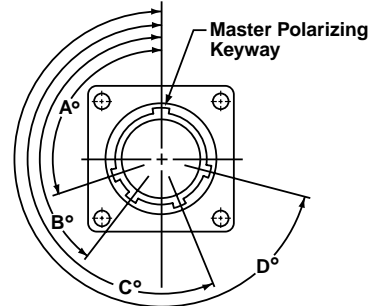
- 22992 Class I
- Back-Shells
- Options Others

Alternate Keying Positions of Shells

, 4 2 . 4 0,2)49
+ 97 9 2 2 . . . 4 3

Position	HEAD				TAIL			
	A	B	C	D	A	B	C	D
ORA	105°	140°	215°	265°	105°	140°	215°	265°
6	102°	132°	248°	320°	18°	149°	192°	259°
7	80°	118°	230°	312°	92°	152°	222°	342°
8	35°	140°	205°	275°	84°	152°	204°	334°
9	64°	155°	234°	304°	24°	135°	199°	240°
Y or 10*	25°	115°	220°	270°	98°	152°	268°	338°

Keying Positions






Shown is Engaging Face View of Receptacle Shell with Keyways (Plug Shell Keys would be Opposite)

MIL-DTL-26500, Pyle® Quick Reference Charts

THREADED COUPLING

PYLE ZZY




MS2426X()TXX

Shell Style (Stainless Steel pictured)	Basic Performance Level	ADVE Description*	Class*	ASUMBER
	Resistant	Aluminum	MS2426X -3 268488	Pyle A or M Series :: 9 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488
	Resistant	Aluminum	MS2426X -3 268488	Pyle A or M Series :: 9 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488
	Resistant	Aluminum	MS2426X -3 268488	Pyle A or M Series :: 9 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488

BAYONET COUPLING

PYLE ZZW

MS2426X()BXX

Shell Style (Stainless Steel pictured)	Basic Performance Level	ADVE Description*	Class*	ASUMBER
	Resistant	Aluminum	MS2426X -3 26888	Pyle A or M Series :: 7 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488
	Resistant	Aluminum	MS2426X -3 26888	Pyle A or M Series :: 7 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488
	Resistant	Aluminum	MS2426X -3 26888	Pyle A or M Series :: 7 08 88
		Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel	MS2426X -3 88488



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix



22992
Class 1

Back-Shell's

Options
Others

38999

RATCHET LOCK PLUG, BAYONET
PYLE ZZY

Shell Style (Stainless steel only)	Basic Performance Level	ADBE Description*	Class*	ASWBER
 <p>Ratchet Lock Plug</p>	Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel only	Pyle R Series (Commercial only)	:: 9 28 88
 <p>Plug</p>	Superior Strength, Corrosion Resistance up to 204°C (399°F)	Stainless Steel only	Pyle R Series (Commercial only)	:: 9 28 88



III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

RATCHET LOCK PLUG & MATING FLANGE MOUNTED, THREADED RECEPTACLE
PYLE ZZY

Shell Style (Stainless steel pictured)	Basic Performance Level	ADBE Description*	Class*	ASWBER
 <p>Ratchet Lock Plug</p>	Designed to meet high vibration requirements beyond -, 4,	Aluminum	Pyle A Series	ZZY (A, D, F, M) 8 88
		Stainless Steel	Pyle R Series	:: 9 28 88
 <p>Square Flange Mounted Receptacle Threaded Coupling</p>	Designed to meet high vibration requirements beyond -, 4,	Aluminum	Pyle A Series	::9 8 88
		Stainless Steel	Pyle R Series	:: 9 28 88

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shells

Options
Others

Easy steps to build a part number... Military

1. Shell Style	2. Service Class	3. Shell Size	4. Coupling Type	5. Insert Arrangement	6. Contact Type	7. Alternate Keying
MS24266	R	22	T	55	P	6

Step 1. Select a Shell Style

	Designates
MS24264	Square Flange Mounted Receptacle
MS24265	Single D-Hole Mounted Receptacle
MS24266	Straight Plug

Step 5. Select an Insert Arrangement from page 399 & 400

FRONT VIEW
REAR VIEW

Step 2. Select a Service Class

	Designates
R	Aluminum, conductive (chromium finish)
G	Aluminum, conductive (chromium finish)
E	Stainless steel, Passivated

Step 6. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 3. Select a Shell Size

8	10	12	14	16	18	20	22	24
---	----	----	----	----	----	----	----	----

Step 7. Select an Alternate Keying Position of Shell

9. 0.0003" (0.0003")

Step 4. Select a Coupling Type

	Designates
T	Threaded
B	Bayonet

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

Easy steps to build a part number... Pyle Commercial

1. Shell Style	2. Service Class	3. Contacts/Accessories	4. Shell Style	5. Shell Size	6. Insert Arrangement	7. Contact Type	8. Alternate Keying	9. Contact Plating	10. Deviations/Specials
ZZY	A	C	10	22	55	P	6	D	XXX

Step 1. Select a Shell Style

	Designates
ZZY	Threaded Coupling
ZZW	Bayonet Coupling

Step 4. Select a Shell Style

	Designates
10	Straight Plug
12	Single Hole Mounting Receptacle
13	Single Hole Mounting Receptacle (only)
15	Single Hole Mounting Receptacle
17	Square Flange Receptacle

Step 8. Select an Alternate Keying Position of Shell

06, 07, 08, 09, 10 (Omit for 06, 07, 08, 09, 10)

Step 2. Select a Service Class

	Designates
A	Aluminum, Clear Cadmium plated
D	Aluminum, Clear Cadmium plated
F	Aluminum, Clear Cadmium plated
M	Aluminum, conductive (chromium finish)
R	Stainless steel, Passivated

Step 5. Select a Shell Size

8	10	12	14	16	18	20	22	24	28
---	----	----	----	----	----	----	----	----	----

Step 9. Select a Contact Plating

	Designates
D	Rhodium
T	Rhodium

Step 3. Select Contacts & Accessories

	Designates
No Digit	
C	
D	
O	Without contacts or cable support

Step 6. Select an Insert Arrangement from page 399 & 400

FRONT VIEW
REAR VIEW

Step 7. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 10. Deviation/Specials

Consult Amphenol for

and care should be taken in selection of alternate accessory

38999

Amphenol® connectors are specifically designed to meet high vibration requirements. The ratchet lock mechanism is designed to engage as the threaded connectors approach a bottomed condition. The ratchet device maintains the connectors in a fully coupled condition, thus eliminating the need for a locking device.

Additional features include:

- Rear accessories per MIL-DTL-83723, Class I
- Rear accessories per MS 3155 (360° Accessory and Serrations)
- Rear accessories per MIL-DTL-83723, Class I
- Rear accessories per MS 3155 (360° Accessory and Serrations)



Easy steps to build a part number... Pyle Commercial

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Shell Style	Service Class	Contacts & Accessories	Shell Style	Accessory Style	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZY	A	C	12	D	14	04	P	06	D

Step 1. Select a Shell Style

	Designates
ZZY	Threaded Coupling

Step 5. Select a Shell Size

10	12	14	16	18	20	22	24	28
----	----	----	----	----	----	----	----	----

Step 2. Select a Service Class

	Designates
A	Aluminum, Clear Cadmium plated
D	Aluminum, conductive (chromium finish)
F	Aluminum, Clear Cadmium plated
M	Aluminum, conductive (chromium finish)
R	Stainless steel, Passivated

Step 6. Select an Insert Arrangement from Page 399 & 400

14
16

Step 3. Select Contact & Accessory

	Designates
No Digit	With contacts and clamp
C	With contacts
O	Without contacts

Step 7. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 4. Select a Shell Style

	Designates
12	Round Flange Mounted Receptacle
13	Round Flange Mounted Receptacle
17	Square Flange Mounted Receptacle

Step 8. Select an Alternate Keying Position of Shell

Step 5. Select Accessory Style

	Designates
D	Rear accessories per MIL-DTL-83723, Class I
E	Rear accessories per MS 3155 (360° Accessory and Serrations)
F	Rear accessories per MS 3155 (360° Accessory and Serrations)

Step 9. Select a Contact Plating

	Designates
D	Old Plate Per MIL-DTL-26636
T	Rhodium plate per MIL-DTL-26636

Step 10. Deviations/Specials

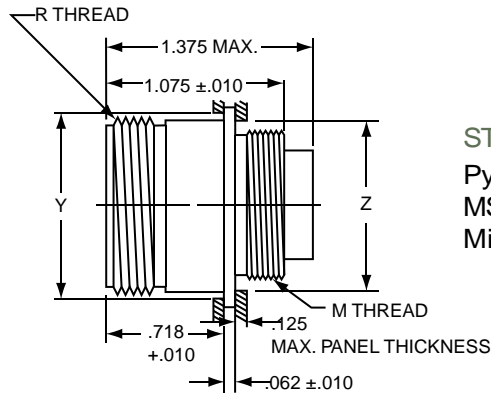
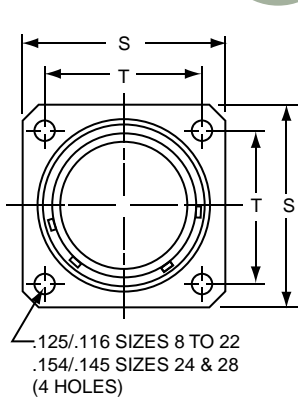
different, and care should be taken in selection of alternate accessory

MS24264, Pyle® ZZY, MIL-DTL-26500 Square Flange Mounted Receptacle, Threaded

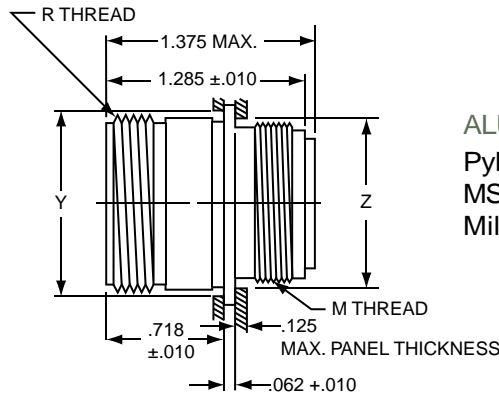
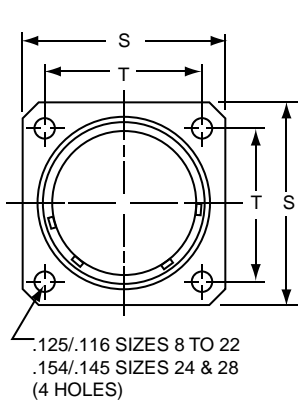
Part #		Military							
To complete see how to order page 403.		Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying	
		MS24264	E, R, G	XX	T	XX	X	X	
Commercial									
Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZY	X	X	17	XX	XX	X	X	X	XXX

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



STAINLESS STEEL
Pyle ZZY-RX-17XX Series
MS24264EXXTXX
Military Class E



ALUMINUM
Pyle ZZY-XX-17XX Series
MS24264RXXTXX
Military Class R and G

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

Shell Style	M Cable Support Thread		Aluminum Connector including Contacts		R Coupling Thread	S Flange	T Mounting Hole Centers	Y Back Mount	Z Front Mount
	Steel .3	Alum 5 Modified	Pin Insert	Socket Insert					
08**									
10									
12									
14									
16									
18									
20									
22									
24									
28†									

- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shell's
- Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

Part #

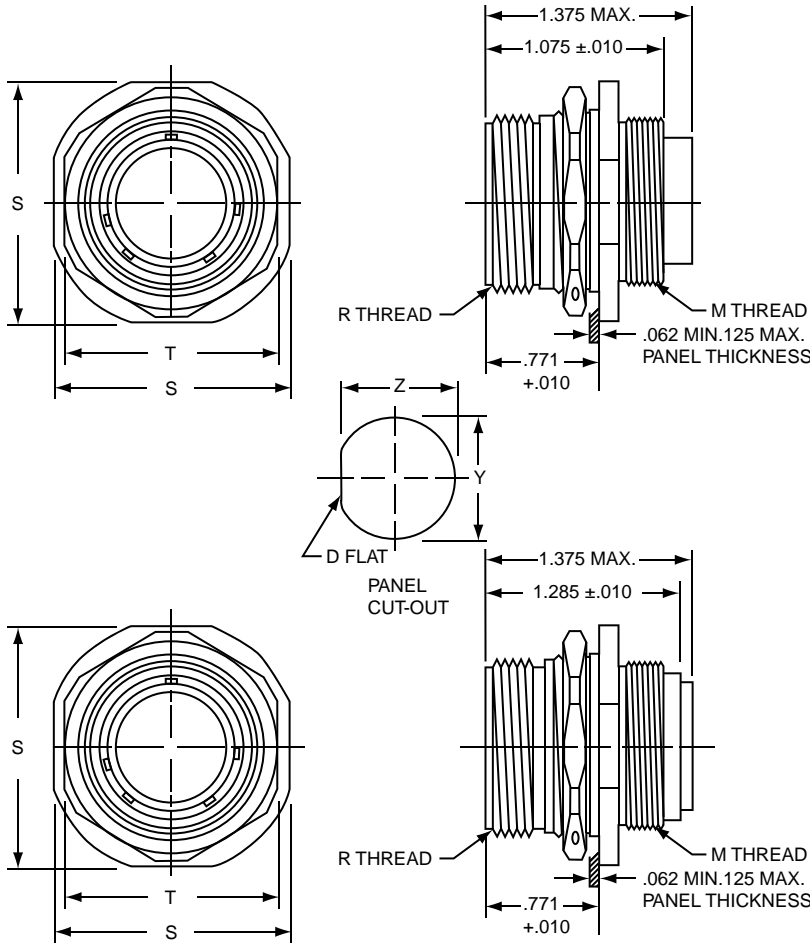
To complete see how to order page 403.

Military

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying
MS24265	E or R	XX	T	XX	X	X

Commercial

Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/ Specials
ZZY	X	X	15	XX	XX	X	X	X	XXX



STAINLESS STEEL
Pyle ZZY-RX-15XX Series
MS24265EXXTXX
Military Class E

ALUMINUM
Pyle ZZY-XX-15XX Series
MS24265RXXTXX
Military Class R

Shell	M Cable Support Thread		Aluminum Connector including Contacts		R Coupling Thread	S Flange Width	T		Y Dia Mounting Hole	Z Flat Mounting Hole	Torque $\frac{200}{\text{NMT}}$
	Steel .3	AlM 5 Modified	Pin Insert	Socket Insert			Steel	AlM			
08	
10	36
12**	56
14	65
16	69
18	81
20	100
22	123
24	133
28	

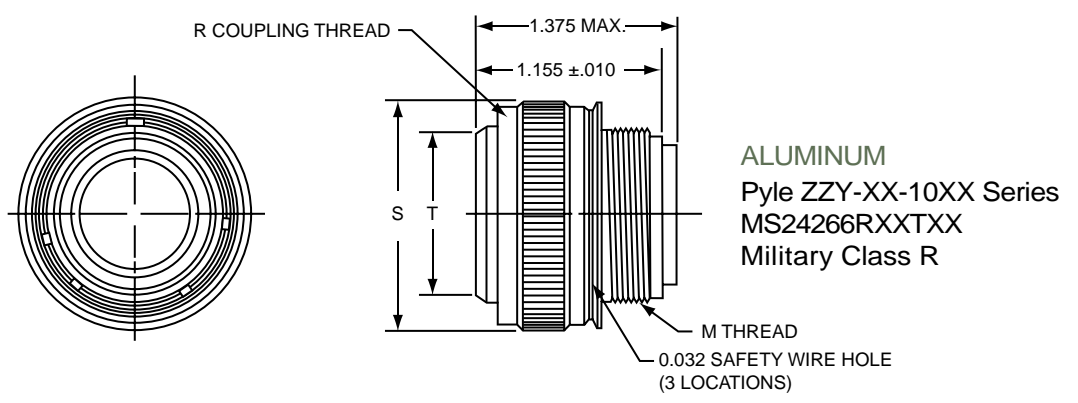
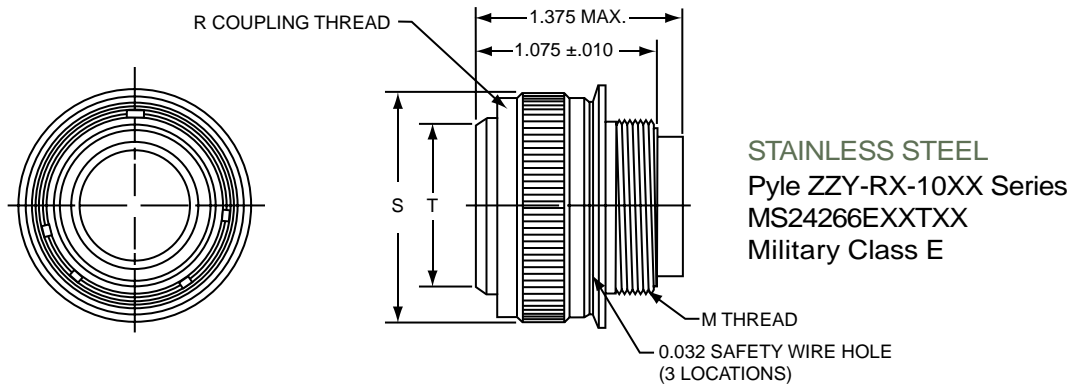
MS24266, Pyle® ZZY, MIL-DTL-26500

Straight Plug, Threaded

Part #		Military								
To complete see how to order page 403.										
Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying				
MS24266	E or R	XX	T	XX	X	X				
Commercial										
Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials	
ZZY	X	X	10	XX	XX	X	X	X	XXX	

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB



HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient
26482
Matrix 2
83723
III
Pyle
26500

Shell Size	M Cable Support Thread		Aluminum Connector including Contacts		R Coupling Thread	3A-AX		T
	Steel .3	Aluminum 5 Modified	Pin Insert	Socket Insert		Steel	Aluminum	
08**								n
10								
12								
14								
16								
18								
20								
22								
24								
28†								

5015
Crimp Rear Release Matrix
22992
Class 1
Back-Shell
Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

Part #

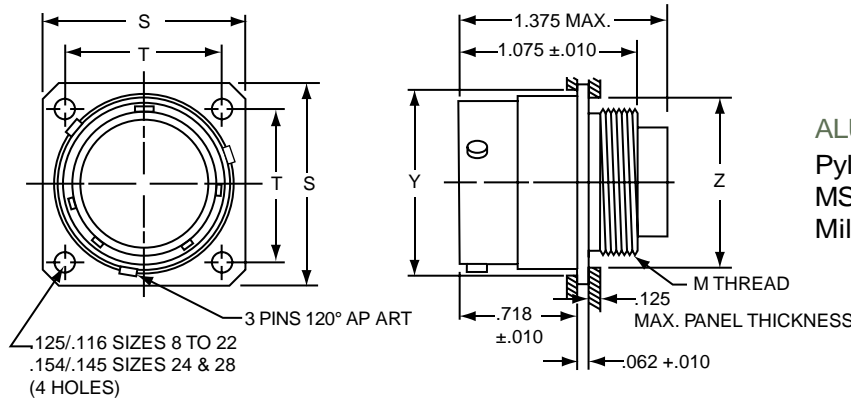
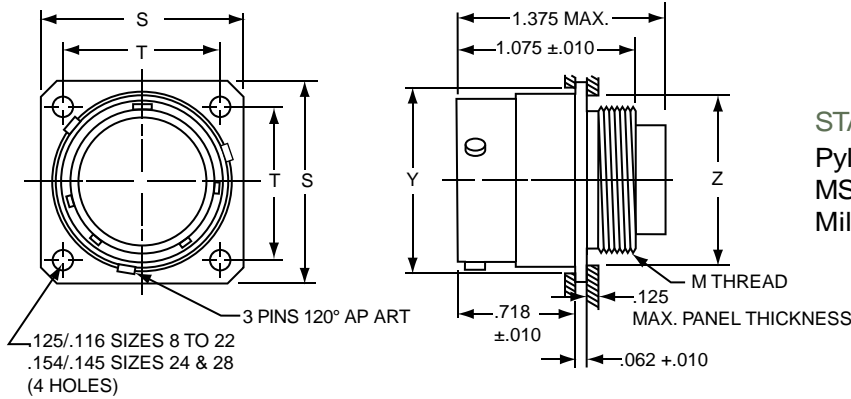
To complete see how to order page 403.

Military

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying
MS24264	E or R	XX	B	XX	X	X

Commercial

Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZW	X	X	17	XX	XX	X	X	X	XXX



Shell Style	M Cable Support Thread		Aluminum Connector including Contacts		S Flange Width	T Mounting Hole Centers	Y Back Mount	Z Front Mount
	Steel .3	Aluminum 5. Modified	Pin Insert	Socket Insert				
08**	-10E	-10E
10
12
14
16
18
20
22
24**
28

MS24265, Pyle® (ZZW), MIL-DTL-26500 Single Hole (D-Hole) Mounted Receptacle, Bayonet

Part

To complete see how to order page 403.

Military

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying
MS24265	E or R	XX	B	XX	X	X

Commercial

Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZW	X	X	15	XX	XX	X	X	X	XXX

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

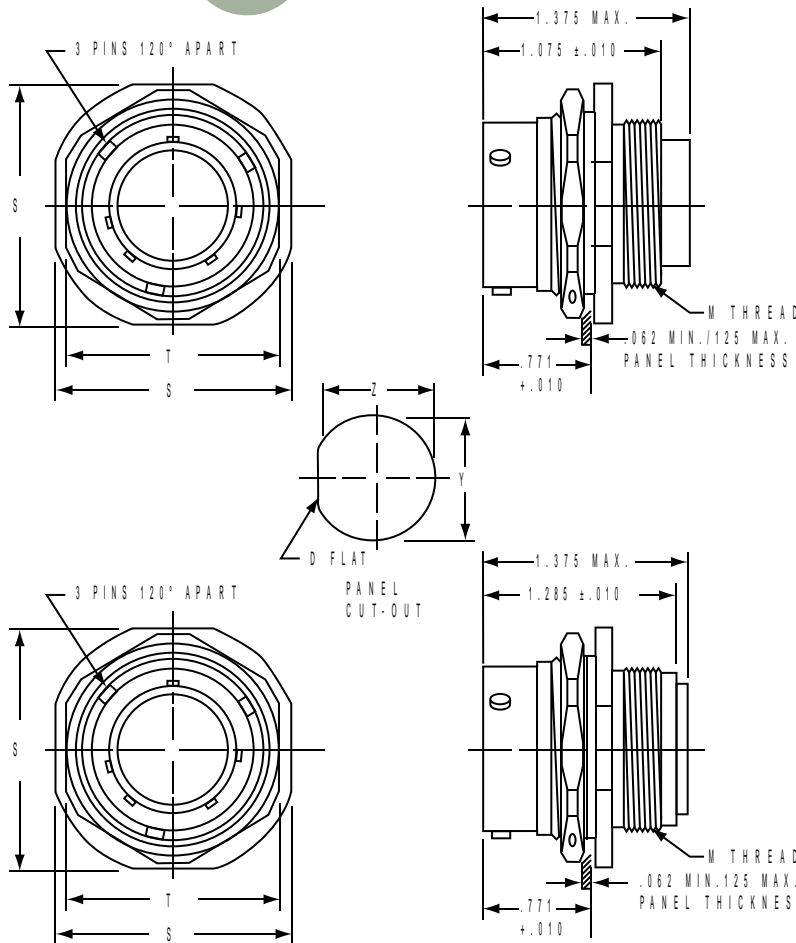
26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others



STAINLESS STEEL
Pyle ZZW-RX-15XX Series
MS24265EXXBXX
Military Class E

ALUMINUM
Pyle ZZW-XX-15XX Series
MS24265RXXBXX
Military Class R

Shell	M Cable Support Thread		Aluminum Connector including Contacts		S Flange	T		Y Dia Mounting Hole	Z Flat Mounting Hole	Torque
	Steel	ILM 5 Modified	Pin Insert	Socket Insert		Steel	ILM			
08**	.									33
10										36
12**	.									56
14										65
16										69
18										81
20										100
22										123
24										133
28										

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others

Part #

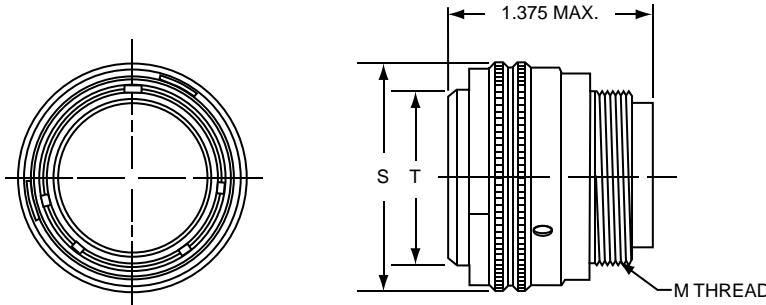
To complete see how to order page 403.

Military

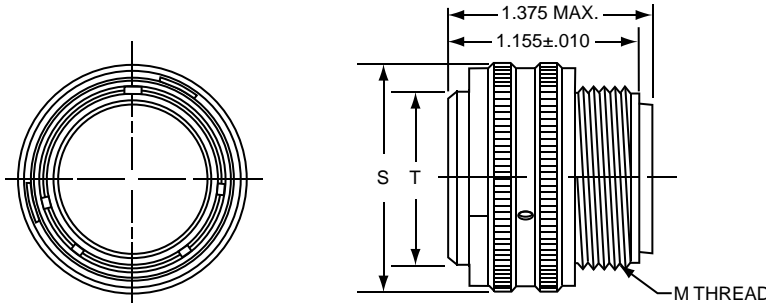
Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying
MS24266	E or R	XX	B	XX	X	X

Commercial

Shell Style	Service Class	Contacts & Accessories	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZW	X	X	10	XX	XX	X	X	X	XXX



STAINLESS STEEL
Pyle ZZW-RX-10XX Series
MS24266EXXBXX
Military Class E



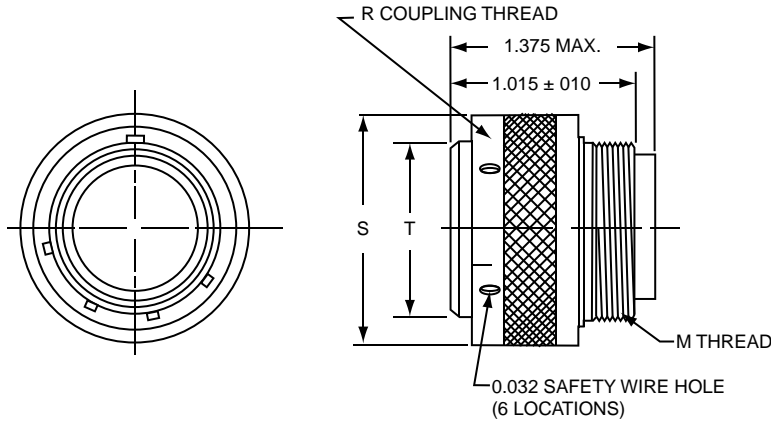
ALUMINUM
Pyle ZZW-XX-10XX Series
MS24266RXXBXX
Military Class R

Shell	M Cable Support Thread		Aluminum Connector including Contacts		3A-AX		T
	Steel .3	Aluminum 5 Modified	Pin Insert	Socket Insert	Steel	Aluminum	
08**	.				.		
10							
12							
14							
16							
18							
20							
22							
24							
28							

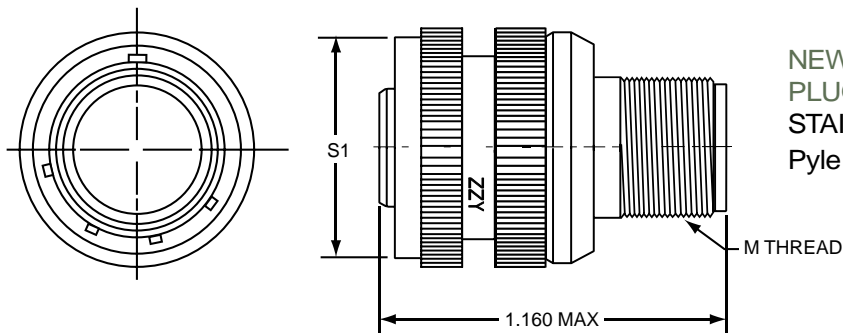
Part # To complete see how to order page 404.

Commercial

Shell Style	Service Class	Contacts & Accessories*	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZY	X	X	12	XX	XX	X	X	X	XXX
ZZY	X	X	13	XX	XX	X	X	X	XXX



RATCHET LOCK PLUG
STAINLESS STEEL/
ALUMINUM
Pyle ZZY-XX-12XX
Series



NEW NON-DECOUPLING PLUG
STAINLESS STEEL
Pyle ZZY-RX-13XX Series

Shell Size	M Thread Cable Support	R Thread Coupling	S Dia (IN)	S1 Dia (IN)	T (IN)
08					
10					
12					
14					
16					
18					
20					
22					
24					
28					

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

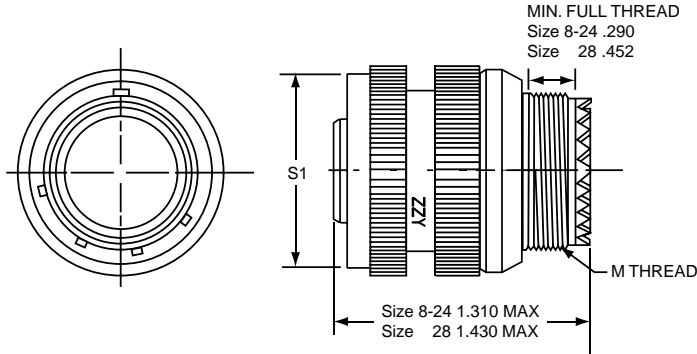
- Back-Shells

- Options Others

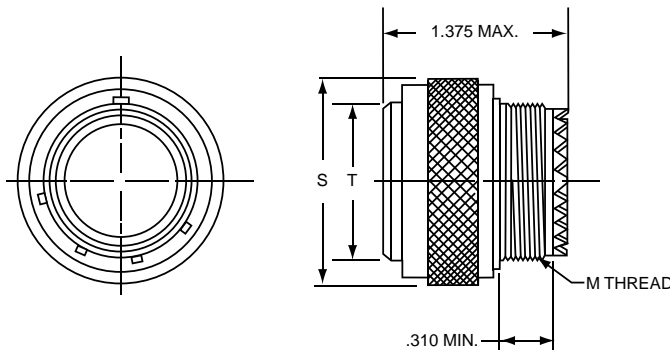
Part # To complete see how to order page 404.

Commercial

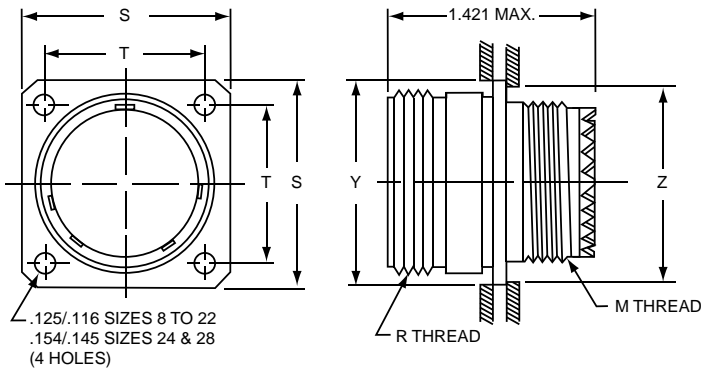
Shell Style	Service Class	Contacts & Accessories*	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Deviations/Specials
ZZY	X	X	12 or 13	XX	XX	X	X	X	XXX



NEW NON-DECOUPLING PLUG MATING
Serrations per MS3155
STAINLESS STEEL/ALUMINUM
Pyle ZZY- XX-13XXX Series



RATCHET LOCK PLUG
With MIL-DTL-83723 Accessory
Serrations per MS3155
STAINLESS STEEL/ALUMINUM
Pyle ZZY- XX-12XXX Series











MATING SQUARE FLANGE MOUNTED, THREADED RECEPTACLE
STAINLESS STEEL/ALUMINUM
Pyle ZZY-XX-17XX Series







Shell Style	MThread Cable Support	Plug				Receptacle			
		3 AX Coupling	T n	R Coupling Thread	S Flange Width	S1 Dia	T Mounting Hole	Y Back Mount	Z Front Mount
08
10									
12									
14									
16									
18									
20									
22									
24									
28									

38999

THREADED COUPLING, FIREWALL, PYLE FPK, FPL, FP5K, MS2761X-KXXTXX

Shell Style	Basic Performance Level	Description*	Class*	ASSEMBLY
 <p>Square Flange Mounted Receptacle Threaded Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88488
			Pyle FPK or FPL or FP5K Series	FPK-17() or FPL-17() or FP5K-17()
 <p>Single Hole (D-Hole) Mounted Receptacle Threaded Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88488
			Pyle FPK or FPL or FP5K Series	FPK-19() or FPL-19() or FP5K-19()
 <p>Straight Plug Threaded Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88488
			Pyle FPK or FPL	FPK-11() or FPL-11()
 <p>Ratchet Locking Plug Threaded Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Meets Military Class K	Consult Amphenol
			Pyle FPK or FPL or FP5K Series	FPK-12() or FPL-12() or FP5K-12()

BAYONET COUPLING, FIREWALL, PYLE FYL, MS2761X-KXXBXX

Shell Style	Basic Performance Level	Description*	Class*	ASSEMBLY
 <p>Square Flange Mounted Receptacle Bayonet Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88 88
			Pyle FYL Series	FYL-17()
 <p>Single Hole (D-Hole) Mounted Receptacle Bayonet Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88 88
			Pyle FYL Series	FYL-19()
 <p>Straight Plug Bayonet Coupling</p>	 <p>Resists high temperatures</p>	Class K Stainless Steel	Military Class K	-3 +88 88
			Pyle FYL Series	FYL-11()

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others



38999

Easy Steps to build a part number... Military

1.	2.	3.	4.	5.	6.	7.	8.
Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying	Cable Support
MS27613	K	14	T	7	P	6	D

Step 1. Select a Shell Style

	Designates
MS27613	Square Flange Receptacle
MS27614	Single Hole Mounting Receptacle
MS27615	Straight Plug

Step 4. Select a Coupling Type

	Designates
T	Threaded
B	Bayonet

Step 6. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 2. Select a Service Class

	Designates
K	

Step 5. Select an Insert Arrangement on pages 399 & 400

Step 7. Select an Alternate Keying Position

9. 06/13/14

Step 3. Select a Shell Size

12	14	16	18	22	24	28
----	----	----	----	----	----	----

Step 6. Select a Cable Support

	Designates
D	Long Straight (MS27658)
P	Standard Straight (MS27657)
J	Right Angle (MS27659)

(Omit for normal)
See page 429

Easy Steps to build a part number... Commercial

1.	2.	3.	4.	5.	6.	7.	8.	9.
Connector Type	Shell Style	Shell Size	Insert Arrangement	Contact Type	Less Contact/Contact Plating	Alternate Keying	Cable Support	Deviations/Specials
FPK	11	28	42	S	T	06	D	XXX

Step 1. Select a Shell Style

FPK	Threaded coupling, qualified to MIL-DTL-26500 and BACC63 Series
FPL	Threaded coupling, same as FPK, but used on Lockheed Aircraft
FP5K	Threaded Coupling, qualified for
FYL	Bayonet Coupling, qualified to MIL-DTL-26500

Step 4. Select an Insert Arrangement on pages 399 & 400

Step 7. Select an Alternate Keying Position

9. 06/13/14

Step 2. Select a Shell Type

	Designates
11	Straight Plug
12	Ratchet Locking Threaded Plug
13	
17	Square Flange Receptacle
19	D-Hole Mounting Receptacle

Step 5. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 8. Select a Cable Support

	Designates
D	Long Straight
P	Standard Straight
J	Right Angle

(Omit for normal)
See page 429

Step 3. Select a Shell Size

12	14	16	18	22	24	28
----	----	----	----	----	----	----

Step 6. Select a Contact/Contact Plating

	Designates
E	Rhodium
T	
D	

Step 9. Deviations/Specials

Please consult Amphenol for more

Easy Steps to build a part number... Per Boeing Company

1.	2.	3.	4.	5.	6.	7.	8.
Boeing Aircraft	Electrical Connector	Shell Type	Shell Size	Accessories	Insert Arrangement	Contact Type	Alternate Keying
BAC	C	63X	14	S	T	06	D

Step 1. Boeing Aircraft

	Designates
BAC	Boeing Aircraft Company

Step 2. Electrical Connector

	Designates
E	

Step 3. Select a Shell Type

	Designates
63X	Plug, Threaded, Fire Barrier
63Y	Receptacle, Threaded Fire Barrier
63AE	Wire Fire Barrier
63AF	Receptacle, Flange Mount, Thread-

FE 7
 UMR

Step 4. Select a Shell Size

12	14	16	18	22	24	28
----	----	----	----	----	----	----

Step 5. Accessories

	Designates
C	Cable Clamp replace

Step 6. Select an Insert Arrangement on pages 399 & 400

RE
 S

Step 7. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

Step 8. Select an Alternate Keying Position

9. 06/03/06

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter
 Transient

26482
 Matrix 2

83723 III
 Matrix | Pyle

26500
 Pyle

5015
 Crimp Rear Release Matrix

22992
 Class 1

Back-Shell

Options
 Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

Part #

Military

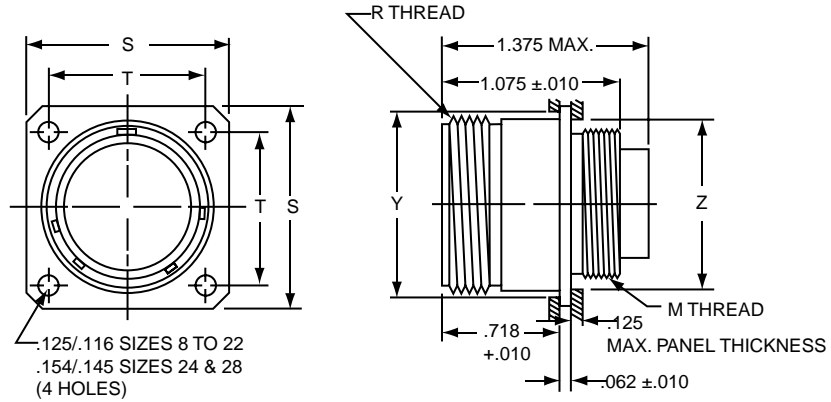
To complete see how to order page 414.

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying	Cable Support
MS27613	K	XX	B or T	XX	X	X	X

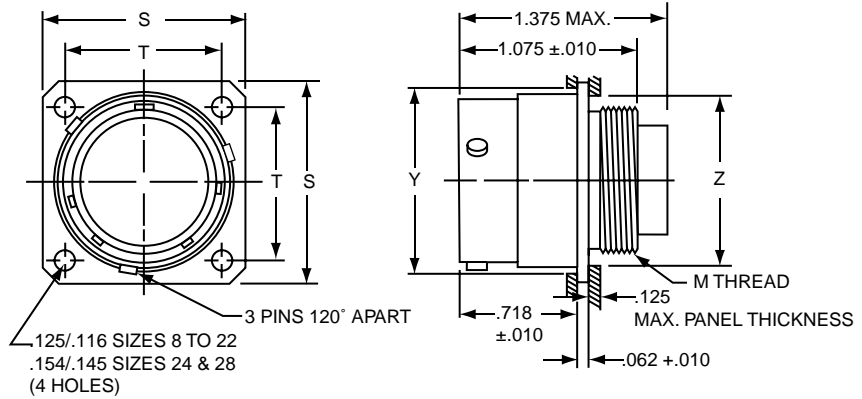
Commercial

Connector Type	Shell Style	Shell Size	Insert Arrangement	Contact Type	Contact Style	Alternate Keying	Cable Support	Deviations/ Specials
FPK or FYL	17	X	XX	XX	X	X	X	XXX

THREADED COUPLING
Class K Stainless Steel
Pyle FPK-17XX Series
MS27613KXXTXX
Military Class K



BAYONET COUPLING
Class K Stainless Steel
Pyle FYL-17XX Series
MS27613KXXBXX
Military Class K



HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Shell Style	M Cable Support Thread	R Coupling Thread	S Flange Width	T Mounting Hole Centers	Y Back Mount	Z Front Mount
08
10
12**						
14						
16						
18						
20
22						
24**						
28**						

MS27614, Pyle® FPK or FYL, Firewall Class K Single Hole (D-Hole) Mounted Receptacle

Threaded or Bayonet

Part

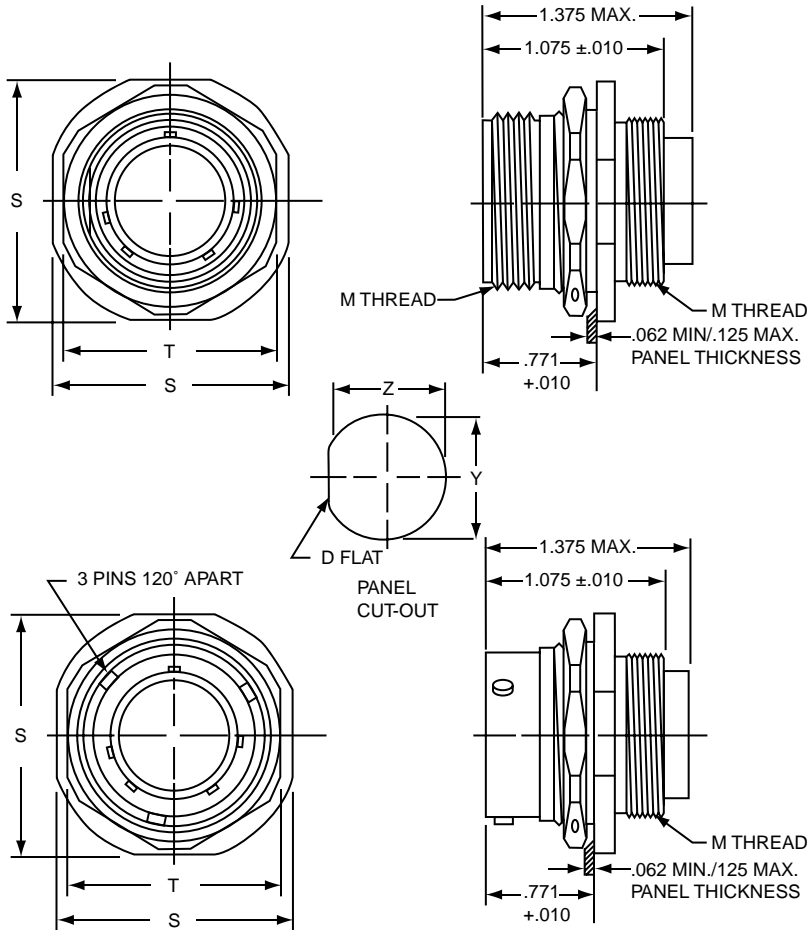
*To complete see how to order page 414.

Military

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying	Cable Support
MS27614	K	XX	B or T	XX	X	X	X

Commercial

Connector Type	Shell Style	Shell Size	Insert Arrangement	Contact Type	Contact Style	Alternate Keying	Cable Support	Deviations/Specials
FPK or FYL	19	X	XX	XX	X	X	X	XXX



THREADED COUPLING
Class K Stainless Steel
Pyle FPK-19XX Series
MS27614KXXTXX
Military Class K

BAYONET COUPLING
Class K Stainless Steel
Pyle FYL-19XX Series
MS27614KXXBXX
Military Class K

Shell Size	M Cable Support Thread	R Coupling Thread	S Flange Width	T Mounting Flats	Y Mounting Hole Flat	Z Mounting Hole Flat	Torque
08	33
10	36
12**	56
14	65
16	69
18	81
20	100
22**	123
24	133
28

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shell

- Options
- Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

Part # Military

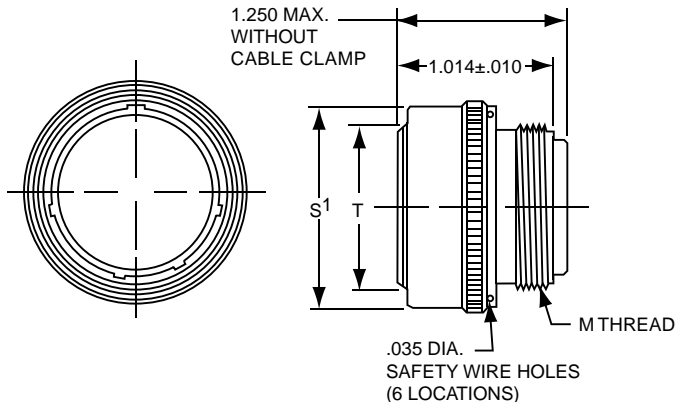
To complete see how to order page 414.

Shell Style	Service Class	Shell Size	Coupling Type	Insert Arrangement	Contact Type	Alternate Keying	Cable Support
MS27615	K	XX	B or S	XX	X	X	X

Commercial

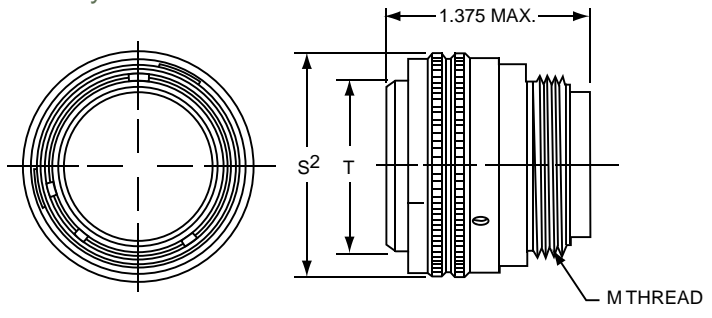
Connector Type	Shell Style	Shell Style	Insert Arrangement	Contact Type	Contact Style	Alternate Keying	Cable Support	Deviations/ Specials
FPK or FYL	11 or 12	X	XX	XX	X	X	X	XXX

THREADED COUPLING
Class K Stainless Steel
Pyle FPK-11XX Series
MS27615KXXTXX
Military Class K



Shell ⌀	M Cable Support Thread	R Coupling Thread	INSERT		T
			S1 A	S2 A	
08
10
12
14
16
18
20
22
24
28**

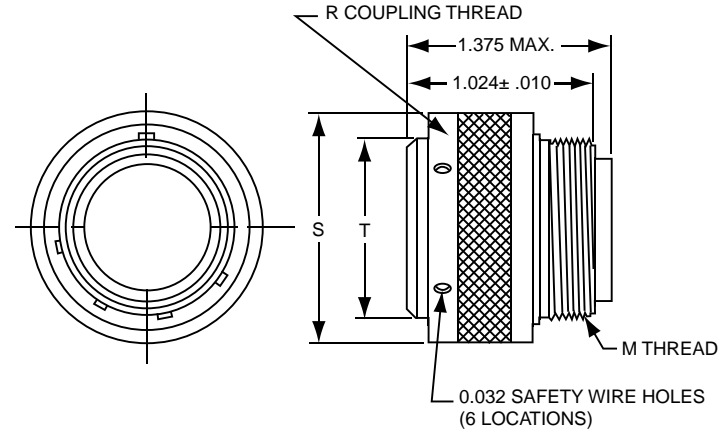
BAYONET COUPLING Class K Stainless Steel
Pyle FYL-11XX Series MS27615KXXBXX
Military Class K



MS27615, Pyle® FPK, Firewall Class K
Ratchet Lock Plug, Threaded

RATCHET LOCK PLUG
Threaded Coupling
Class K Stainless Steel Pyle FPK-12XX Series
MS27615KXXSXX
Military Class K

Shell ⌀	M Cable Support Thread	R Coupling Thread	S		T
			INSERT Dia	⌀	
08
10
12
14
16
18
20
22
24
28



MIL-DTL-26500 Type – 48 Series Receptacle Short Skirt

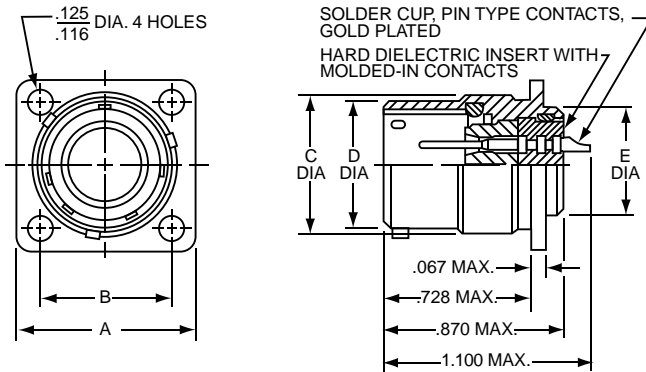
Receptacle Short Skirt – Aluminum – Bayonet Coupling

Shorter, lighter, and more economical than the standard MIL-DTL-26500 connector receptacle.

They have molded epoxy fiberglass inserts and can operate continuously up to 125°C



48 Series



AVAILABLE WITH PIN CONTACTS ONLY

Receptacle Short Skirt with Standard Flange

Insert Arrangement	Amphenol UMBR	A	B	C -AX	D n	-AX
10-5	88					
12-3	88					
12-12	88					
14-4	88					
14-7	88					
14-15	88					
16-24	88					
18-8	88					
18-14	88					
18-31	88					
20-25	88					
20-28	88					
22-12	88					
22-19	88					
22-55	88					

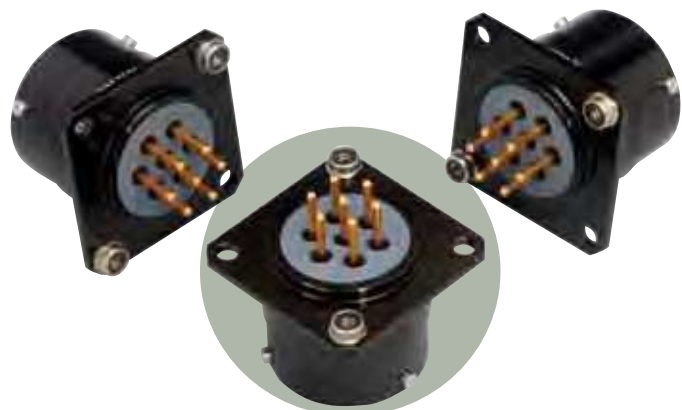
Receptacle Short Skirt with Reduced Flange

Insert Arrangement	Amphenol UMBR	A -AX	B	C -AX	D n	-AX
10-5	88					
12-3	88					
12-12	88					

Commercial Design with PCB Contacts:

- s [Symbol]
- s [Symbol]
- s [Symbol]
- s [Symbol]

- [Symbol]
- [Symbol]
- [Symbol]
- [Symbol]



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

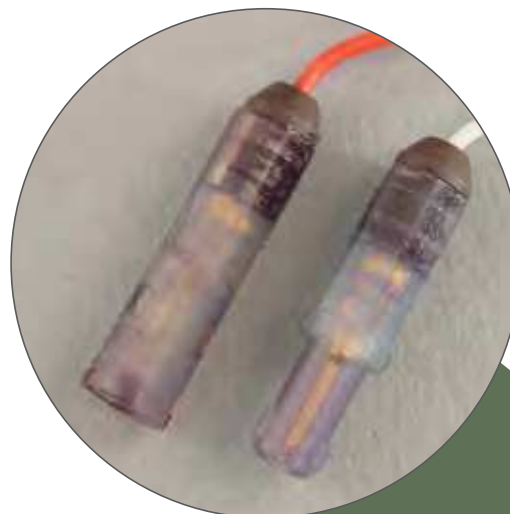
Back-Shell

Options Others

38999

Special Application Wire Splice Connector
The Amphenol® **48 Series** is a space-saving connector design that can be used for various

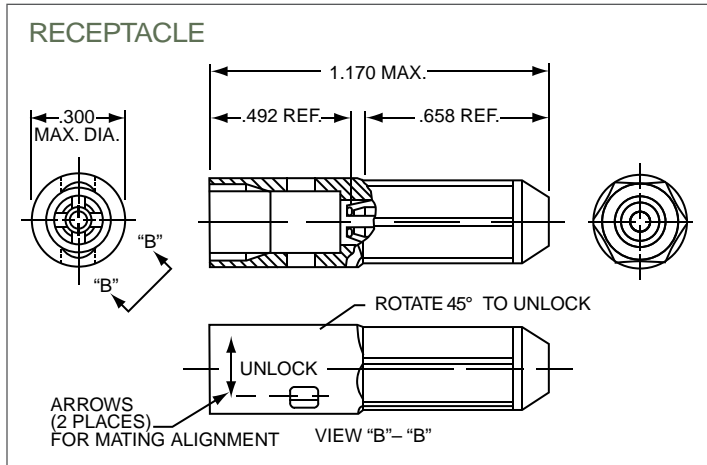
- socket contacts
- Incorporates environmental sealing grommet
- Metal collet retention
- **48 Series**, 4, **48 Series**
- **48 Series**
- Weight savings design
- Space savings design
- Color coded connector halves - red or blue



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

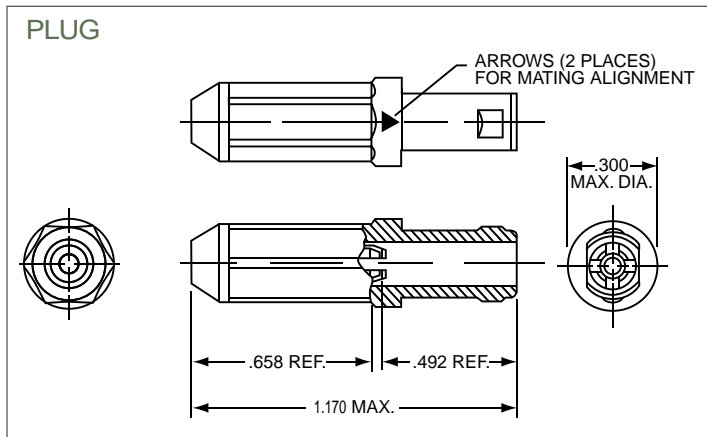
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle



Receptacle Wire Splice

Amphenol 48 Series 48 Series	Amphenol 10- Part 10- Part	Color	3EOL 48 Series
48-7191	10-804342	Blue	Pin ZZL-4016-36LD
48-7191-1	10-804342-1	Red	Socket ZZL-4116-36LD



Plug Wire Splice

Amphenol 48 Series 48 Series	Amphenol 10- Part 10- Part	Color	3EOL 48 Series
48-7190	10-804341	Blue	Pin ZZL-4016-36LD
48-7190-1	10-804341-1	Red	Socket ZZL-4116-36LD

- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

Pyle® ZZL/ZZB, MIL-DTL-26500 Type Hermetic (three styles), Threaded or Bayonet

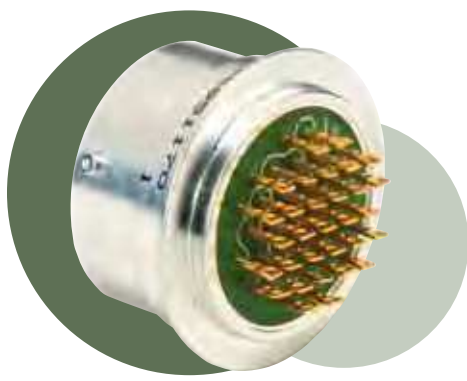
38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter
Transient
26482
Matrix 2
83723
III
Matrix | Pyle
26500
Pyle
5015
Crimp Rear Release Matrix
22992
Class 1
Back-Shells
Options Others

Amphenol® is an experienced supplier of highly reliable hermetic connectors for the
 MIL-DTL-26500, AD: [REDACTED]
 [REDACTED], 4, [REDACTED]
 [REDACTED]
 [REDACTED] AD
 [REDACTED]
 [REDACTED]
 [REDACTED] [REDACTED]



Consult Amphenol Aerospace for more information on hermetic connectors, and for [REDACTED]

Easy Steps to build a part number for Hermetic Connectors... Commercial

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

Series	Service Class	Shell Style	Shell Size	Insert Arrangement	Contact Type	Alternate Keying	Contact Plating	Variations
ZZY	A	C	T	55	P	6	D	H45

Step 1. Select a Series

Designates
ZZL Threaded Coupling
ZZB Bayonet Coupling

Step 2. Service Class

Designates
HC Hermetic Class

Step 3. Select a Shell Style

Designates
14 Solder Mount Receptacle
15 Single Hole Mounting Receptacle
17 Square Flange Receptacle

Step 5. Select a Shell Size

8	10	12	14	16	18	22	24	28
---	----	----	----	----	----	----	----	----

Step 6. Select an Insert Arrangement

[REDACTED] PAGE

Step 7. Select a Contact Type

Designates
P [REDACTED] gold plate

Step 8. Select an Alternate Keying Position

See page 400

Step 9. Select a Contact Plating

Designates
E [REDACTED]
W [REDACTED]

Consult Amphenol Aerospace for ordering information of [REDACTED]

Step 10. Select a Variation

Designates
H45 304L Stainless Steel Shell
H52 Tinned Termination Tails
H56 [REDACTED] contacts
H77 304L Stainless Steel Shell, Inconel Contacts
H127 Same as H125 except 304L Stainless Steel Shell
H146 303 Stainless Steel Shell, 100 Micro-inch [REDACTED]
H152 304L Stainless Steel [REDACTED] Beads, Loose Seals
H177 303 Stainless Steel Shell, Loose Seals
H181 Tin Plated Contacts

Downloaded from Datasheet.su

38999 Crimp Contacts per MIL-DTL-39029 – Copper Alloy, Gold Plating

0). .4 43				
Contact #	SEC UMBER	Bin Code	-3 UMBER	MFR CODE
20	-	627	MS24254-20P	ZZL-4020-36LD*
16	-	229	MS24254-16P	ZZL-4016-36LD*
12	-	235	MS24254-12P	ZZL-4012-36LD*

3+4 .4 43				
Contact #	SEC UMBER	Bin Code	-3 UMBER	MFR CODE
20	-	260	MS24255-20S	ZZL-4120-36LD*
16	-	248	MS24255-16S	ZZL-4116-36LD*
12	-	254	MS24255-12S	ZZL-4112-36LD*

DDn(
DDn(

Amphenol®/Pyle® Special Application Contacts

Copper Alloy, Rhodium plated Contacts†			
Contact #	Description	MFR CODE NO	MFR CODE SEC
20	Rhodium plated	ZZL-4020-36LT	ZZL-4120-36LT
16	Rhodium plated	ZZL-4016-36LT	ZZL-4116-36LT
12	Rhodium plated	ZZL-4012-36LT	ZZL-4112-36LT

Thermocouple Contacts					
Contact #	Material	MFR CODE NO	MFR CODE SEC		Color Code
			Pencil Clip Design*	Split Tine Design**	
20	Alumel Chromel Constantan	ZZL-4020-10R	ZZL-4120-10R	ZZY-4120-10R	White White White
		ZZL-4020-10P	ZZL-4120-10P	ZZY-4120-10P	
		::, .	::, .	::9 .	
16	Alumel Chromel Constantan	ZZL-4016-10R	ZZL-4116-10R	ZZY-4116-10R	White White White
		ZZL-4016-10P	ZZL-4116-10P	ZZY-4116-10P	
		::, .	::, .	::9 .	
12	Alumel Chromel Constantan	ZZL-4012-10R	ZZL-4112-10R	ZZY-4112-10P	White White White
		ZZL-4012-10P	ZZL-4112-10P	ZZY-4112-10P	
		::, .	::, .	::9 .	

. 0

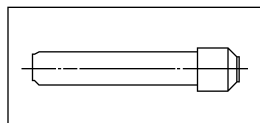
Printed Circuit Board/Wire-Wrap Contacts

MFR CODE

Reel Contacts

MFR CODE

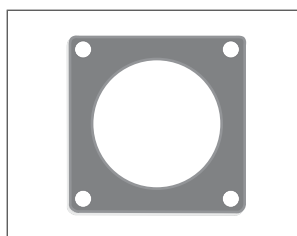
Sealing Plugs



Same sealing plug is used in both

Contact #	MFR CODE .O	-3 UMBER	Color Code
20	10-405996-20	MS-27488-20	Red
16	10-405996-16	MS-27488-16	Blue
12 & #1 Shielded	10-405996-12	MS-27488-12	
# 2 Shielded	10-405996-8	MS27187-4	White

Sealing Gaskets



Contact #	MFR CODE .O
08	ZZL-6508-10D
10	ZZL-6510-10D
12	ZZL-6512-10D
14	ZZL-6514-10D
16	ZZL-6516-10D
18	ZZL-6518-10D
20	ZZL-6520-10D
22	ZZL-6522-10D

Shielded/Coaxial Contacts For MIL-DTL-26500 Connectors

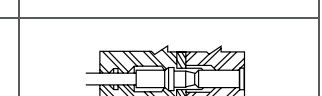
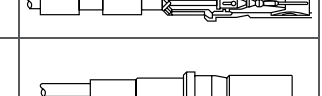
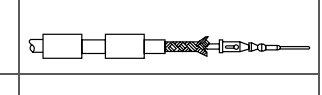
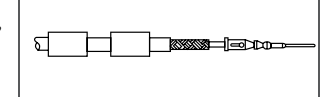
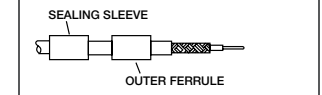
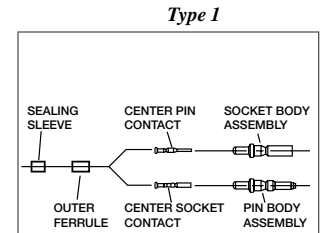
38999

Part Number (and on next page)	Shielded Contact Type	n			Amphenol Crimp Tools (Center Contact)			Outer Ferrule Crimping Tool††	Cable Application
		A	B	C	Tool	Part Number	Crimp Setting		
Type 1 #1 Shielded	48-1226-02 Pin 48-1227-02 Socket 48-1227-50 Socket				294-268* 294-289**	294-1631	#3	294-529	7 (B), Type II and MIL-C-27500-22 +). 2 5 5
	48-1226-57 Pin 48-1227-57 Socket				294-268* 294-289**	294-1631	#1	294-529	2 5 5 5 5
Type 2 #1 Shielded	48-1226-51, -54 Pin 48-1227-51, -54, -56 Socket				294-268* 294-289**	294-1631	#1	294-528	2 5 5 5 5
Type 3 #1 Shielded	48-1226-55 Pin 48-1227-55 Socket				294-268* 294-289**	294-1631	#1	294-529	2 5 5 5 5
Type 4 #2 Shielded	48-2187-02 Pin 48-2188-02 Socket				294-126** 294-243** 294-1166**† 294-358** 294-268*	294-1014 Turret Head 294-1014 294-1015 299-1630		294-528	AD), 7 (B), +).
	48-2187-50, -51 Pin 48-2188-50, -51, -53, -54 Socket				294-1166**† 294-358** 294-268*	294-1014 294-1015 294-1630	#3	294-528	2 5 5 5 5
Type 5 #2 Shielded	48-2187-52 Pin 48-2188-52 Socket				294-358** 294-268*	294-1015 294-1630		294-530	2 5 AD

*** Refer to illustration on page 424

Shielded Contact Assembly Procedure

Step 1	For Type 2 and Type 3	
Step 2	Type 4 and Type 5 or spacer (Type 2 and Type 3)	
Step 3		
Step 4		
Step 5	Type 1, Type 3 and Type 5 slide sealing	
Step 6	Type 1, Type 2, Type 3 and Type 5.	
Step 7	To complete assembly for Type 4, push sealing boot into connector grommet until O-ring riser of boot snaps	



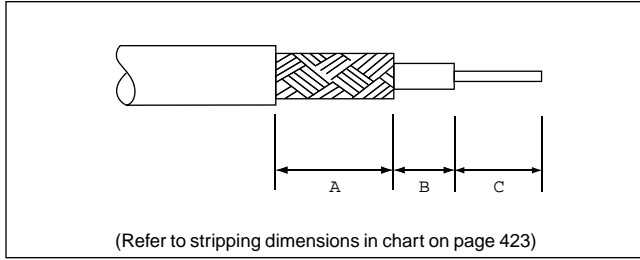
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shell
- Options Others

- 38999
- III
- HD
- Dualok
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

Cable Stripping

Strip cable jacket, braid and dielectric to the dimensions



Shielded Contact Assembly Procedure, cont.

	Type 2	Type 3	Type 4	Type 5

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

38999

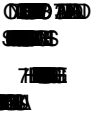
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

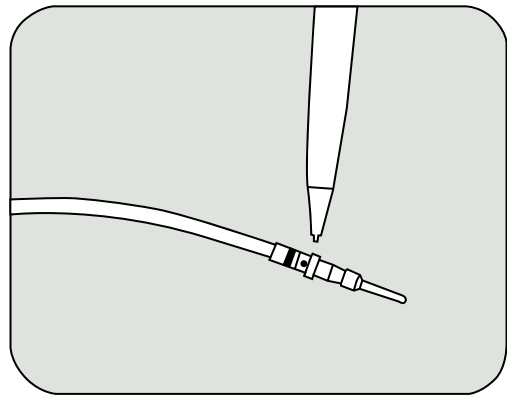
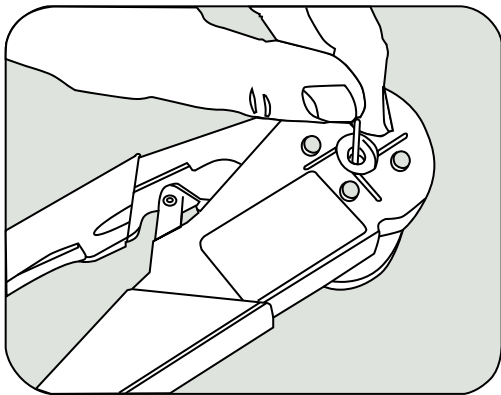
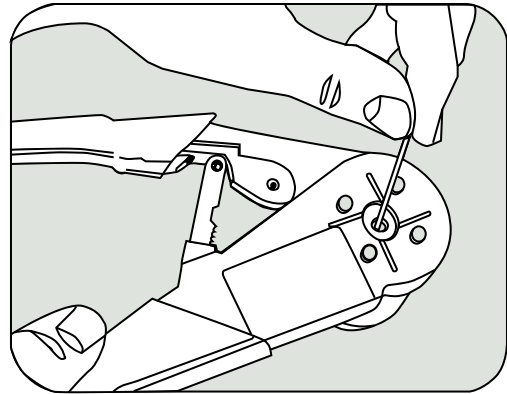
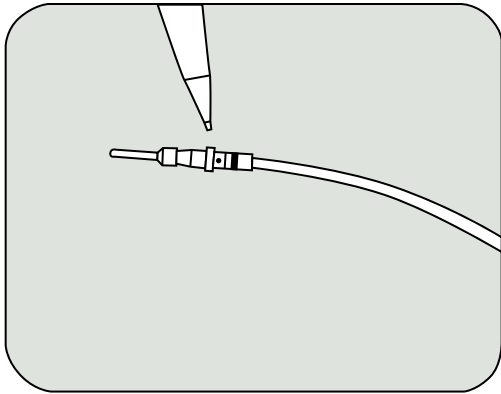
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1
- Back-Shell
- Options
- Others

Contact Termination



Contact #	Wire	Stripping Length
20	20 to 24	v v
16	16 to 18	v v
12	12 to 14	v v



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

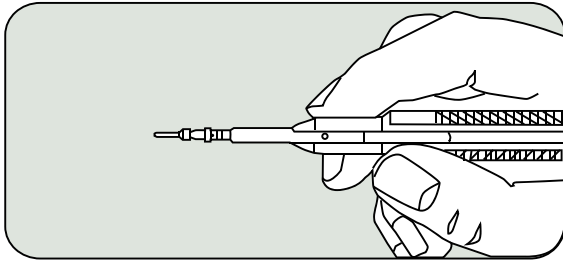
- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

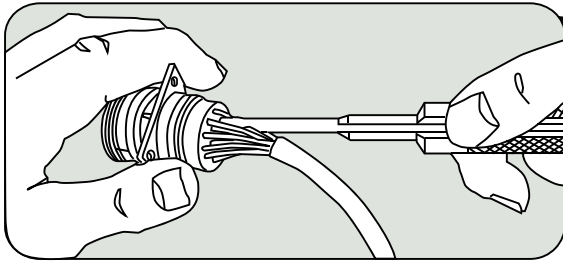
- Back-Shells

- Options
- Others

Contact Insertion into the Connector



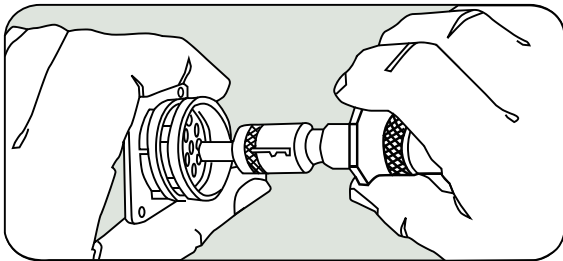
4
4
S
A
S
S
S
S



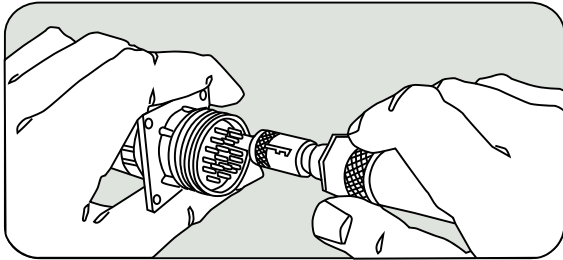
4
4
S
A
S
S
S
S

has entered rear seal portion of insert, maintain alignment of contact and

Contact Removal from the Connector

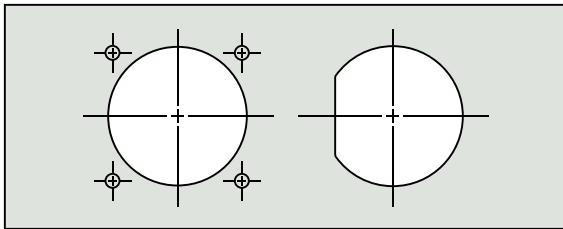


4
4
S
A
S
S
S
S



4
4
S
A
S
S
S
S

Panel Mounting



4
4
S
A
S
S
S
S

Accessories – Contact Terminating Tools For MIL-DTL-26500 Connectors

Contact Insertion Tools



Contact SE	Insertion Tool			Insertion Tool Replacement Tip & Pin	
	MFRD VEO	LO	Color Code	MFRD VEO	LO
20	ZZL-R-9510-A-20	-),)	Red	ZZL-R-9531-A-20	n
16	ZZL-R-9510-16	-),)	Blue	ZZL-R-9531-16	n
12	ZZL-R-9510-12	-),)	VE	ZZL-R-9531-12	n

Contact Removal Tools



Contact SE	Removal Tool			Removal Tool Replacement Tip	
	MFRD VEO	LO	Color Code	MFRD VEO	LO
20	ZZL-R-9511-20	MS-24256-R-20	Red	ZZL-R-9557-20	n
16	ZZL-R-9511-16	MS-24256-R-16	Blue	ZZL-R-9557-16	n
12	ZZL-R-9511-12	MS-24256-R-12	VE	ZZL-R-9557-12	n

Contact Crimping Tools



Contact SE	Adjustable Turret		HECIB Crimping Tool			
	MFRD VEO	LO	MFRD VEO	LO		
20	TP-201354	- (Class 1)	TP-201355	- (Class 1)	TP-201356	-
16						
12						

Contact Termination



Contact SE	TEE	Stripping Length
20	20 to 24	n v
16	16 to 18	n v
12	12 to 14	n v

See pages 425 and 426 for assembly instructions for proper contact

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

Crimping Tools for Shielded Contacts

Amphenol Tool 357-100



Amphenol Tool 294-529 or 294-528



Shielded Contact ☞	For Crimping Center Contact		For Crimping Outer Ferrule	
	Basic Crimp Tool	Contact Positioner	Basic Crimp Tool (Hex dies included)	Hex Dimension
# 1 Shielded	357-100	294-1631	294-529	(EX
# 2 Shielded		294-1630	294-528	(EX

Contact Insertion Tools



☞	MPROD	END	
20		294-88	MS2456A20
16		294-96	MS2456A16
#12, # 1 Shielded		294-72	MS24256R12
#2 Shielded		294-128	n

Contact Removal Tools



☞	MPROD	END	
20		294-89	MS2456R20
16		294-97	MS2456R16
#12, # 1 Shielded		294-73	MS2456R12
#2 Shielded		294-127	n

For more information on other tools available

~~MPROD~~ ~~END~~

Standard Crimping Tool for Power Contacts



Basic Crimp Tool		5MM Turret Head
MPROD	END	
294-542	-	-

Contact ☞	Color Code	Wire ☞
20	Red	n n
16	Blue	n n
12	☞	n

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

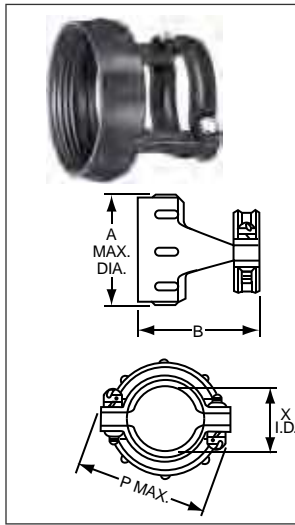
22992
Class 1

Back-
Shells

Options
Others

Accessories - Cable Supports For MIL-DTL-26500 Connectors

Cable Supports - Aluminum



Shell Size	Conductive, Chromium Finish		A -AX A	B	8)	Thread 5.	P -AX
	-3.0	.0					
08	*MS27291-13	*ZZL-R-5308-A	*MS27291-701	*ZZL-M-5308			
10	*MS27291-1	*ZZL-R-5310-A	*MS27291-101	*ZZL-M-5310			
12	MS27291-2	ZZL-R-5312-A	*MS27291-201	*ZZL-M-5312			
14	MS27291-3	ZZL-R-5314-A	*MS27291-301	*ZZL-M-5314			
16	MS27291-4	ZZL-R-5316-A	MS27291-401				
18	*MS27291-5	*ZZL-R-5318-A	*MS27291-501	*ZZL-M-5318			
20	*MS27291-14	*ZZL-R-5320-A	*MS27291-801	*ZZL-M-5320			
22	*MS27291-6	*ZZL-R-5322-A	*MS27291-601	*ZZL-M-5322			
24	MS27291-15	ZZL-R-5324-A	*MS27291-901	*ZZL-M-5324			

Cable Supports - Stainless Steel, Straight



Shell Size	Standard Straight Support						Long Straight Support				
	-3.0	MFRD (E)	A A	-3.0	MFRD (E)	A A	Similar to -3.0	MFRD (E)	A A	L Max Overall Length	Thread
10	.	.	.	.	.	.	.	*FPL-R-5310L	.	.	.
12	.	.	.	.	.	.	MS27658-12	FPL-R-5312L	.	.	.
14	MS27657-14	ZZL-R-5314		MS27657-1	FPL-R-5314	MS27658-14	FPL-R-5314L				
16	*MS27657-16	*ZZL-R-5316		*MS27657-2	*FPL-R-5316	MS27658-16	FPL-R-5316L				
18	MS27657-18	ZZL-R-5318		MS27657-3	FPL-R-5318	*MS27658-18	*FPL-R-5318L				
20	.	.	.	.	.	.	*FPL-R-5320L	.	.	.	.
22	MS27657-22	ZZL-R-5322		MS27657-4	FPL-R-5322	MS27658-22	FPL-R-5322L				
24	.	.	.	.	.	MS27658-24	FPL-R-5324L				
28	.	.	.	.	.	MS27658-28	FPL-R-5328L				

Cable Supports - Stainless Steel, Right Angle



Shell Size	Cable Support, Right Angle				
	Similar to -3.0	MFRD .0	A A	L Max Overall Length	Thread
10	.	*FPL-R-5210	.	.	
12	MS27659-12	FPL-R-5212			
14	MS27659-14	FPL-R-5214			
16	*MS27659-16	*FPL-R-5216			
18	MS27659-18	FPL-R-5218			
22	MS27659-22	FPL-R-5222			
24	*MS27659-24	*FPL-R-5224			
28	*MS27659-28	*FPL-R-5228			

*Consult Amphenol Aerospace for availability

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- Matrix 2
- 26482
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear
- Release
- Matrix

- 22992
- Class 1

- Back-
- Shells

- Options
- Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

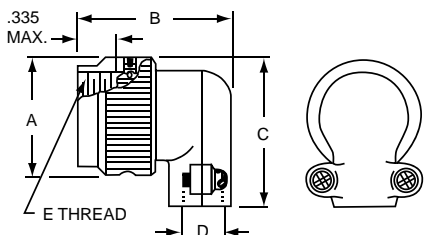
5015
Crimp Rear Release Matrix

22992
Class I

Back-Shells

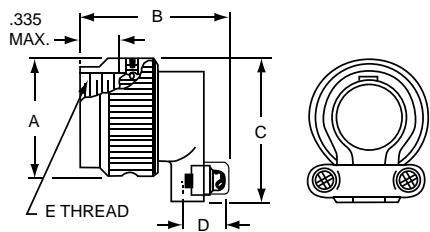
Options
Others

Cable Supports - Stainless Steel, Closed Right Angle



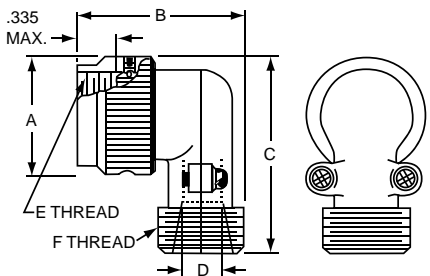
Shell #	Cable Support - Closed Right Angle						
	-3 .O	Amphenol .O	A -AX	B -AX	C Max	D Max	5 .
8	MS27558-1	48-2222-08100					
10	MS27558-2	48-2222-10100					
12	MS27558-3	48-2222-12100					
14	MS27558-4	48-2222-14100					
16	MS27558-5	48-2222-16100					
18	MS27558-6	48-2222-18100					
20	MS27558-7	48-2222-20100					
22	MS27558-8	48-2222-22100					
24	MS27558-9	48-2222-24100					

Cable Supports - Stainless Steel, Open Right Angle



Shell #	Cable Support - Open Right Angle						
	-3 .O	Amphenol .O	A -AX	B -AX	C Max	D Max	5 .
8	MS27559-1	48-2222-08200					
10	MS27559-2	48-2222-10200					
12	MS27559-3	48-2222-12200					
14	MS27559-4	48-2222-14200					
16	MS27559-5	48-2222-16200					
18	MS27559-6	48-2222-18200					
20	MS27559-7	48-2222-20200					
22	MS27559-8	48-2222-22200					
24	MS27559-9	48-2222-24200					

Conduit Adapter- Stainless Steel, Right Angle



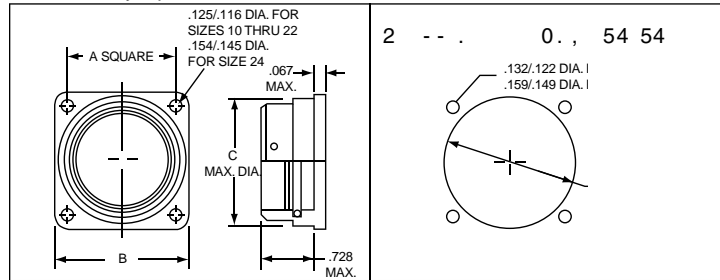
Shell #	Conduit Adapter - Right Angle							
	-3 .O	Amphenol .O	A -AX	B -AX	C Max	D Max	5 .	F Thread 5 .
8	MS27557-1	48-2222-08000						
10	MS27557-2	48-2222-10000						
12	MS27557-3	48-2222-12000						
14	MS27557-4	48-2222-14000						
16	MS27557-5	48-2222-16000						
18	MS27557-6	48-2222-18000						
20	MS27557-7	48-2222-20000						
22	MS27557-8	48-2222-22000						
24	MS27557-9	48-2222-24000						

Accessories - Dummy Receptacles Protection Caps

Dummy Receptacles - Aluminum Threaded or Bayonet

receptacles eliminate the problems involved in letting plugs limited air seal and prevent

Threaded Style pictured

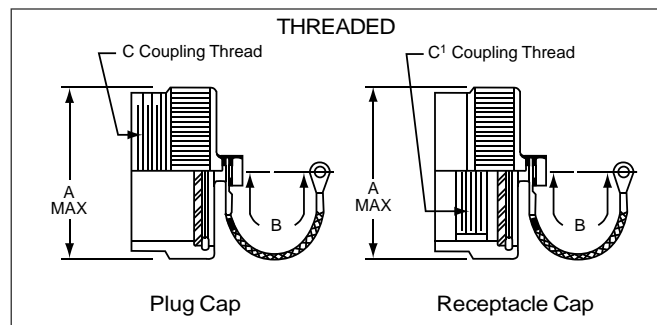
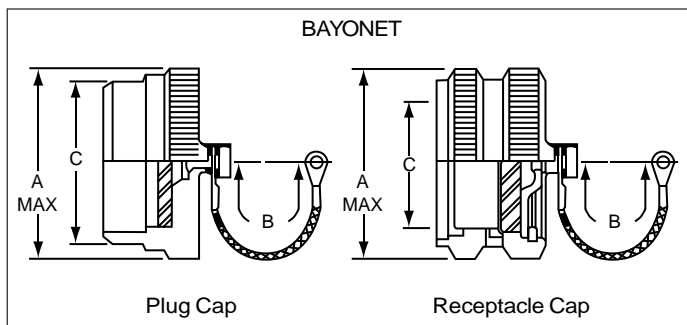


Size	Dimensional Data					Bayonet			
	A Square	B	C AX A	D N A	Bayonet		Threaded		
					Amphenol	MS27297-1	Amphenol	MS27296-1	
10					48-149-10000	MS27297-1	48-172-10000	MS27296-1	
12					48-149-12000	MS27297-2	48-172-12000	MS27296-2	
14					48-149-14000	MS27297-3	48-172-14000	MS27296-3	
16					48-149-16000	MS27297-4	48-172-16008	MS27296-4	
18					48-149-18000	MS27297-5	48-172-18000	MS27296-5	
20					48-149-20000	MS27297-8	48-172-20000	MS27296-8	
22					48-149-22000	MS27297-6	48-172-22000	MS27296-6	
24					48-149-24000	MS27297-9	48-172-24000	MS27296-9	

Protection Caps and Chains - Threaded or Bayonet

Protective metal caps provide an environmental seal for the connector. moisture and other foreign materials from the face of

Size	Dimensional Data					
	A AX A	B Chain Length	Bayonet Cap		Threaded Cap	
			Plug C n	Receptacle C' n	Plug C Thread 5.	Receptacle C' Thread 5.
10						
12						
14						
16						
18						
20						
22						
24						



Size	Plug		Receptacle	
	Amphenol	MS27293-1	Amphenol	MS27295-1
10	48-2144	MS27293-1	48-2150	MS27295-1
12	48-2143	MS27293-2	48-2149	MS27295-2
14	48-2142	MS27293-3	48-2148	MS27295-3
16	48-2141	MS27293-4	48-2147	MS27295-4
18	48-2140	MS27293-5	48-2146	MS27295-5
20	48-2773	MS27293-8	48-2774	MS27295-8
22	48-2139	MS27293-6	48-2145	MS27295-6
24	48-2767	MS27293-9	48-2768	MS27295-9

Size	Plug		Receptacle	
	Amphenol	MS27292-1	Amphenol	MS27294-1
10	48-2340-10	MS27292-1	48-2301-10	MS27294-1
12	48-2340-12	MS27292-2	48-2301-12	MS27294-2
14	48-2340-14	MS27292-3	48-2301-14	MS27294-3
16	48-2340-16	MS27292-4	48-2301-16	MS27294-4
18	48-2340-18	MS27292-5	48-2301-18	MS27294-5
20	48-2340-20	MS27292-8	48-2301-20	MS27294-8
22	48-2340-22	MS27292-6	48-2301-22	MS27294-6
24	48-2340-24	MS27292-9	48-2301-24	MS27294-9

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1

- Back-Shell
- Options
- Others

Amphenol MIL-DTL-5015, Matrix[®]



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s Cable connecting receptacle threaded MS3451 (9441)	449
s Box mounting receptacle threaded MS3452 (9442)	450
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MIL-DTL-5015, Matrix[®] Typical Markets:

- s Military Vehicles
- s Heavy Equipment
- s Military Aircraft
- s Power Generation

Amphenol
Aerospace



MS3450
wall mounting receptacle

MS3451
cable connecting receptacle

MS3452
box mounting receptacle



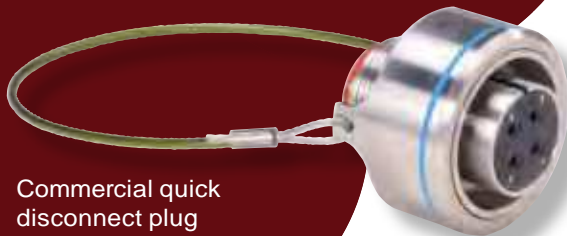
MS3454
jam nut receptacle



MS3456
plug with threaded
coupling



MS3459
plug with self-locking
coupling nut



Commercial quick
disconnect plug
with/without lanyard

Amphenol broadens their MS/Standard family of connectors with the MIL-DTL-5015 Crimp Rear Release Series.

This series provides an alternative to the older MIL-C-5015 solder type. It bridges the gap between an old connector standard and the environmental and high performance needs of current technologies.

DESIGN CHARACTERISTICS

- s Medium to heavy weight cylindrical
- s MS345() series intermateable with existing MIL-DTL-5015 solder or crimp versions on existing equipment
- s Captive coupling nut mechanism, utilizes retaining rings in combination with "L" washers to prevent inadvertent disassembly
- s Multiple interlock systems ensure permanent insert retention
- s Positive control of dielectric separation with guaranteed ease of contact insertion
- s Positive contact retention provided by a closely toleranced damage-proof metal retention clip
- s Completely sealed against environmental extremes with -

CUSTOMER OPTIONS

- s Seven mounting styles, in shell sizes 8 to 48*
- s Threaded coupling or self-locking plug (MS3459) with an internal ratcheting mechanism to prevent unmating due to vibration and shock, eliminating the need for safety wiring
- s Proprietary quick disconnect plug, with or without lanyard available
- s Classes include aluminum or stainless steel shells, or firewall capability
- s MS and Proprietary versions available
- s Some styles are supplied to McDonnell Douglas Specification BAN 7025, DC60 Series
- s Accommodation of contact sizes 0 to 16
- s Over 100 insert arrangement patterns available, accommodating from a minimum of 1 to a maximum of 85 circuits
- s Alternate positioning available
- s Thermocouple pin and socket contacts are available**

NOTE: MIL-C-5015 is superseded to MIL-DTL-5015 for all Amphenol/Matrix rear release crimp type contacts.

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

** Consult Amphenol Aerospace for information on thermocouple contacts.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle

5015 Crimp Rear Release Matrix
22992 Class 1
Back-Shell's
Options Others

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
8S-1	A	1					1
10S-2	A	1					1
10SL-3	A	3					3
10SL-4	A	2					2
12S-1	A	2					2
12S-2	A	2					2
12S-3	A	2					2
12S-4	D	1					1
12-5	D	1				1	
14S-1**	A	3					3
14S-2	Inst.	4					4
14-3	A	1			1		
14S-5	Inst.	5					5
14S-6	Inst.	6					6
14S-7	A	3					3
14S-9**	A	2					2
14S-10	Inst.	4					4
14S-11	Inst.	4					4
14S-12	A	3					3
14S-13	A	3					3
16S-1	A	7					7
16-2*	E	1				1	
16S-3*	B	1					1
16S-4*	D	2					2
16-7*	A	3			1		2
16S-8	A	5					5
16-9	A	4				2	2
16-10	A	3				3	
16-11	A	2				2	
16-12	A	1		1			
16-13	A	2				2	
18-1	A/Inst.	10					10
18-4	D	4					4
s	D	3				2	1
18-6*	D	1		1			
18-7*	B	1			1		
18-8	A	8				1	7
18-9	Inst.	7				2	5
18-10**	A	4				4	
18-11	A	5				5	
18-12	A	6					6
18-13	A	4			1	3	
18-14*	A	2		1			1
18-15	A	4				4	
18-16*	C	1				1	
18-17	Inst.	7				2	5
18-18	Inst.	7				2	5
18-19**	A	10					10
18-22**	D	3					3

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
18-23	A/Inst.	10					10
18-24	A/Inst.	10					10
s	D	3				2	1
s	D	3				2	1
20-2	D	1	1				
20-4	D	4				4	
20-7	D/A	8					8
20-8	Inst.	6			2		4
20-9*	D/A	8				1	7
20-14	A	5			2	3	
20-15	A	7				7	
20-16	A	9				2	7
20-17	A	6				5	1
20-18	A	9				3	6
20-19	A	3			3		
20-21	A	9				1	8
20-22	A	6			3		3
20-24	A	4			2		2
20-27	A	14					14
20-29	A	17					17
20-32	D/A	8					8
20-33	A	11					11
22-2	D	3			3		
22-4**	A	4			2	2	
22-5	D	6				2	4
22-6*	D	3			2		1
22-7*	E	1	1				
22-9*	E	3				3	
22-10*	E	4					4
22-11*	B	2					2
22-12*	D	5			2		3
22-14	A	19					19
22-15*	E/A	6				5	1
22-17*	D/A	9				1	8
22-18*	D/A	8					8
22-19	A	14					14
22-21	A	3	1				2
22-22	A	4			4		
22-23	D/A	8				8	
22-27*	D/A	9			1		8
22-30	A	19					19
22-32	D	6				2	4
22-36*	D/A	8				8	
24-1**	D	2	1			1	
24-2	D	7				7	
24-4*	D	4	1				3
24-5**	A	16					16
24-6*	D/A	8				8	

* Consult Amphenol Aerospace for availability

** Inactive for new design

SEE

MIL-DTL-5015 Crimp Rear Release Insert Availability and Identification

38999

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
24-7	A	16				2	14
24-10	A	7			7		
24-11	A	9			3	6	
24-12	A	5		2		3	
24-15	A	16					16
24-16*	D/A	7			1	3	3
24-20	D	11				2	9
24-21*	D	10			1		9
24-22	D	4			4		
24-24	A	16					16
24-27*	E	7					7
24-28	Inst.	24					24
24-80*	Inst.	23					23
28-1	D/A	9			3	6	
28-2	D	14				2	12
28-3*	E	3			3		
28-4*	E/D	9				2	7
28-5*	D	5		2		1	2
28-8*	E/D/A	12				2	10
28-9	D	12				6	6
28-10	D/A	7		2	2	3	
28-11	A	22				4	18
28-12	A	26					26
28-13	A	26					26
28-15	A	35					35
28-16*	A	20					20
28-17	B/D/A	15					15
28-18*	C/D/A/Inst.	12					12
28-19*	B/D/A	10				4	6
28-20	A	14				10	4
28-21	A	37					37
28-22	D	6		3			3
32-1	E/D	5	2			3	
32-2*	E	5		3			2
32-3*	D	9	1	2		2	4
32-6	A	23		2	3	2	16
32-7	Inst./A	35				7	28
32-9	D	14		2			12
32-13	D	23				5	18
32-15	D	8	2			6	
32-16	A	23		2	3	2	16
32-17	D	4		4			
32-19	E/D	5	2			3	
32-20	A	23		2	3	2	16

Insert Arrangement	Service Rating	Total Contacts	Contact Size				
			0	4	8	12	16
32-22*	A	54					54
32-63	D	5		5			
32-73	A	46					46
36-3	D	6	3				3
36-5	A	4	4				
36-6	A	6	2	4			
36-7	A	47				7	40
36-8	A	47				1	46
36-9	A	31		1	2	14	14
36-10	A	48					48
36-11	A	48					48
36-12	A	48					48
36-15	D/A	35					35
36-16	A	47				7	40
36-17	A	47				7	40
36-18	A	31		1	2	14	14
36-21	A	31		1	2	14	14
36-52	A	52					52
36-66*	A	56				4	52
40-1	D	30				6	24
40-2*	D	23					23
40-3*	D	23		1		4	18
40-4*	D	23		2	3	2	16
40-5*	A	15	3	2	4	6	
40-6*	D	26	1			1	24
40-7*	A/D	22	2			2	18
40-9	A	47			1	22	24
40-10*	A	29		4	9		16
40-11*	D	25	1	1	1	4	18
40-56	A	85					85
40-62*	A	60					60

* Consult Amphenol Aerospace for availability
** Inactive for new design

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

- Back-Shell's

- Options Others

38999

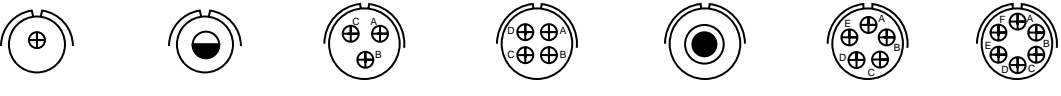
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



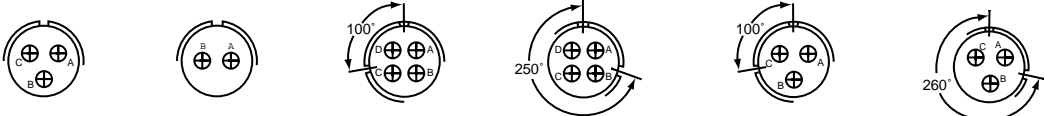
Insert Arrangement	8S-1	10S-2	10SL-3	10SL-4	12S-1	12S-2	12S-3
Service Rating	A	A	A***	A	A	A	A
Number of Contacts	1	1	3	2	2	2	2
Contact Size	16	16	16	16	16	16	16

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables



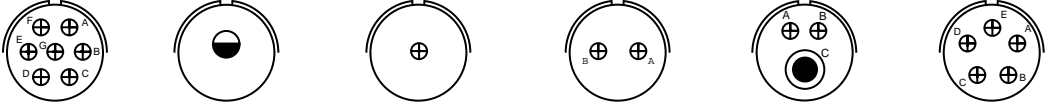
Insert Arrangement	12S-4	12-5	14S-1**	14S-2	14-3	14S-5	14S-6
Service Rating	D	D	A	Inst.	A	Inst.	Inst.
Number of Contacts	1	1	3	4	1	5	6
Contact Size	16	12	16	16	8	16	16

- EMI Filter Transient



Insert Arrangement	14S-7	14S-9**	14S-10	14S-11	14S-12	14S-13
Service Rating	A	A	Inst.	Inst.	A	A
Number of Contacts	3	2	4	4	3	3
Contact Size	16	16	16	16	16	16

- 26482 Matrix 2
- 83723 III Matrix | Pyle



Insert Arrangement	16S-1	16-2*	16S-3*	16S-4*	16-7*	16S-8
Service Rating	A	E	B	D	A	A
Number of Contacts	7	1	1	2	1 2	5
Contact Size	16	12	16	16	8 16	16

- 5015 Crimp Rear Release Matrix

- 22992 Class 1

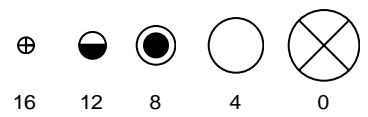


Insert Arrangement	16-9	16-10	16-11	16-12	16-13	18-1
Service Rating	A	A	A	A	A	B, C, F, G = A; Bal. = Inst.
Number of Contacts	2 2	3	2	1	2†	10
Contact Size	12 16	12	12	4	12	16

- Back-Shells

- Options Others

* Consult Amphenol Aerospace for availability.
 ** Inactive for new design
 *** Service rating Inst. Class K
 † one Iron contact and one Constantan contact

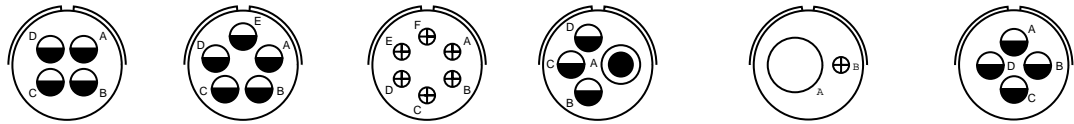


MIL-DTL-5015 Crimp Rear Release Insert Arrangements

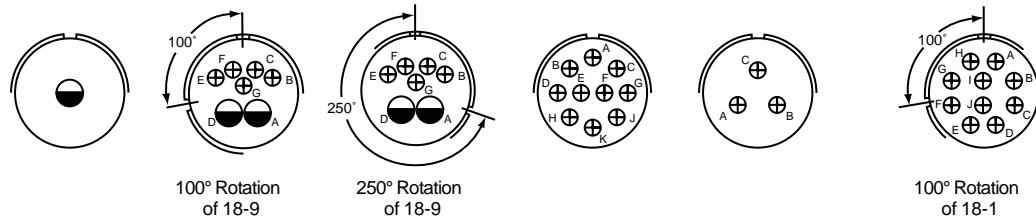
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



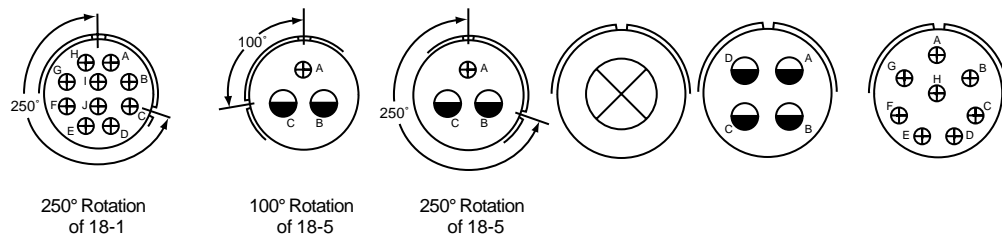
Insert Arrangement	18-4	18-5*		18-6*	18-7*	18-8*		18-9	
Service Rating	D	D		D	B	A		Inst.	
Number of Contacts	4	2	1	1	1	1	7	2	5
Contact Size	16	12	16	4	8	12	16	12	16



Insert Arrangement	18-10**	18-11		18-12	18-13		18-14*		18-15
Service Rating	A	A		A	A		A		A
Number of Contacts	4	5		6	1	3	1	1	4††
Contact Size	12	12		16	8	12	4	16	12



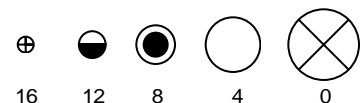
Insert Arrangement	18-16*	18-17		18-18		18-19**	18-22**	18-23	
Service Rating	C	Inst.		Inst.		A	D	B, C, F, G = A; Bal. = Inst.	
Number of Contacts	1	2	5	2	5	10	3	10	
Contact Size	12	12	16	12	16	16	16	16	



Insert Arrangement	18-24	18-27*		18-28*		20-2	20-4	20-7	
Service Rating	B, C, F, G = A; Bal. = Inst.	D		D		D	D	A, B, G, H = D; C, D, E, F = A	
Number of Contacts	10	2	1	2	1	1	4	8	
Contact Size	16	12	16	12	16	0	12	16	

* Consult Amphenol Aerospace for availability.
 ** Inactive for new design\

⊕ one Iron contact and one Constantan contact
 †† A, C = Iron; B, D = Constantan



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

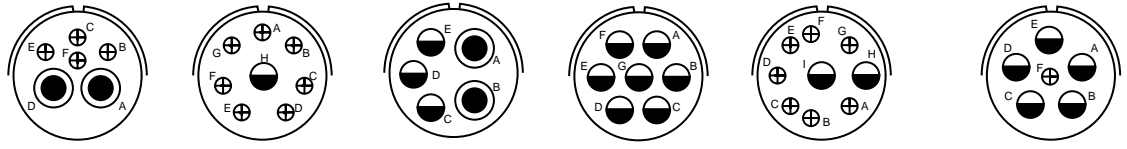
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix
- 22992
- Class 1

- Back-Shells
- Options
- Others

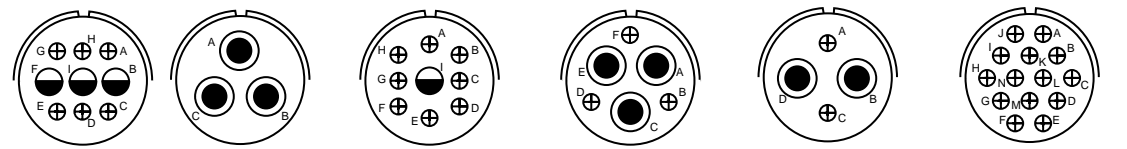
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB



Insert Arrangement	20-8*		20-9*		20-14		20-15		20-16		20-17	
Service Rating	Inst.		H = D; Bal. = A		A		A		A		A	
Number of Contacts	2	4	1	7	2	3	7		2	7	5	1
Contact Size	8	16	12	16	8	12	12		12	16	12	16

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

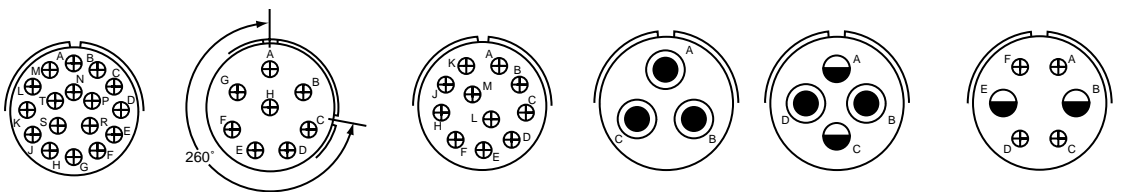


Insert Arrangement	20-18		20-19		20-21		20-22		20-24		20-27	
Service Rating	A		A		A		A		A		A	
Number of Contacts	3	6	3		1	8	3	3	2	2	14	
Contact Size	12	16	8		12	16	8	16	8	16	16	

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle



260° Rotation of 20-7

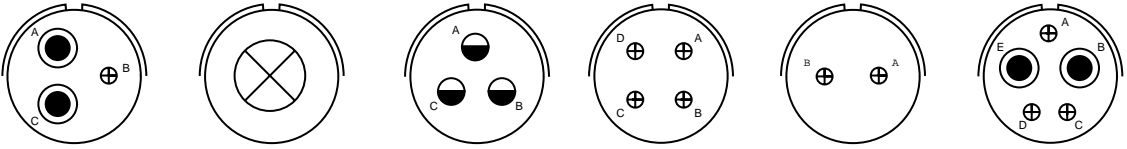
Insert Arrangement	20-29		20-32		20-33		22-2		22-4**		22-5	
Service Rating	A		A, B, G, H = D; Bal. = A		A		D		A		D	
Number of Contacts	17		8		11		3		2	2	2	4
Contact Size	16		16		16		8		8	12	12	16

5015
Crimp Rear Release Matrix

22992
Class I

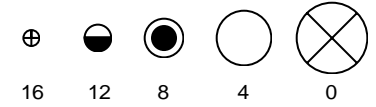
Back-Shells

Options
Others



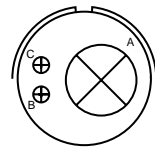
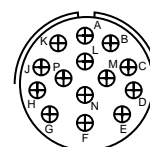
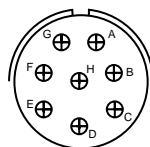
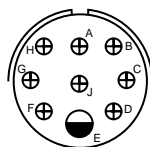
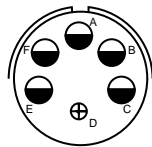
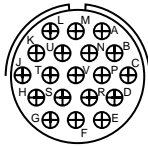
Insert Arrangement	22-6**		22-7*		22-9*		22-10*		22-11*		22-12*	
Service Rating	D		E		E		E		B		D	
Number of Contacts	2	1	1		3		4		2		2	3
Contact Size	8	16	0		12		16		16		8	16

* Consult Amphenol Aerospace for availability.

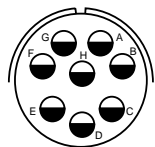
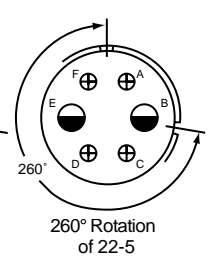
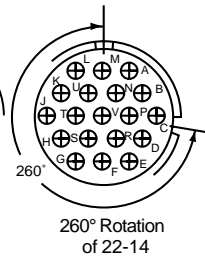
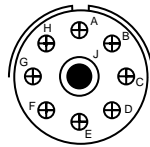
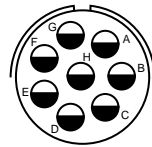
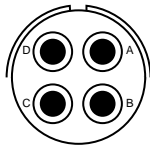


MIL-DTL-5015 Crimp Rear Release Insert Arrangements

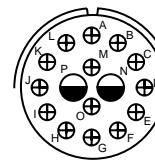
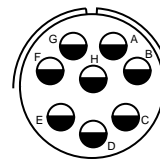
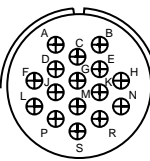
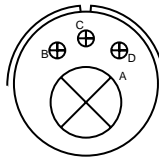
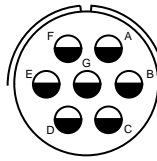
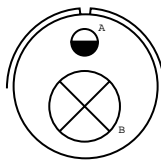
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



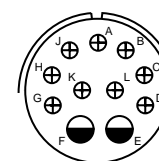
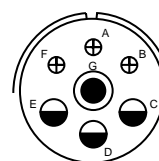
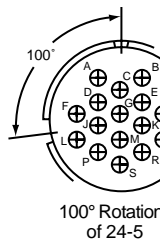
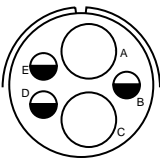
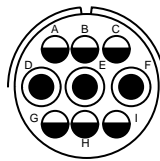
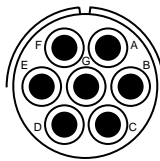
Insert Arrangement	22-14	22-15*		22-17*		22-18*	22-19		22-21	
Service Rating	A	D = 3; Bal. = A		A = D; Bal. = A		C, D, E = A; Bal. = D	A		A	
Number of Contacts	19	5	1	1	8	8	14		1	2
Contact Size	16	12	16	12	16	16	16		0	16



Insert Arrangement	22-22	22-23		22-27*		22-30	22-32		22-36*	
Service Rating	A	H = D; Bal. = A		J = D; Bal. = A		A	D		H = D; Bal. = A	
Number of Contacts	4	8		1		8	19	2	4	8
Contact Size	8	12		8		16	16	12	16	12



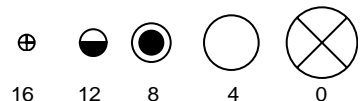
Insert Arrangement	24-1**		24-2		24-4*		24-5**	24-6*		24-7	
Service Rating	D		D		D		A	A, G, H = D; Bal. = A		A	
Number of Contacts	1	1	7		1	3	16	8		2	14
Contact Size	0	12	12		0	16	16	12		12	16



Insert Arrangement	24-10	24-11		24-12		24-15		24-16*			24-20
Service Rating	A	A		A		A		A, B, F, G = D; C, D, E = A			D
Number of Contacts	7	3	6	2	3	16	1	3	3	2	9
Contact Size	8	8	12	4	12	16	8	12	16	12	16

* Consult Amphenol Aerospace for availability.
 ** Inactive for new design

CONTACT LEGEND



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

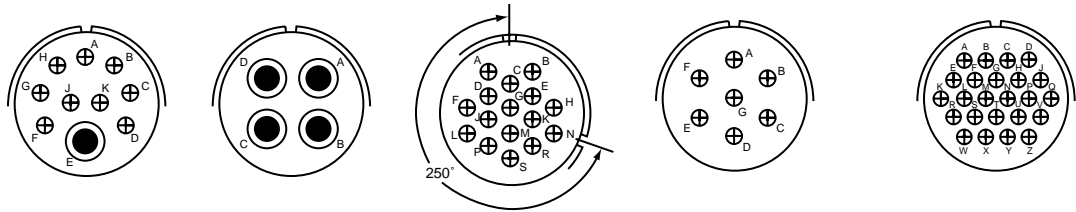
22992 Class I

Back-Shells

Options Others

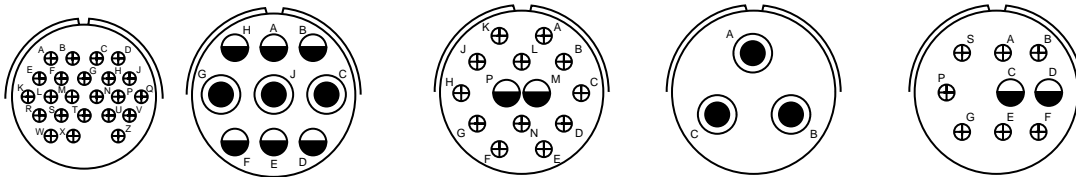
38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



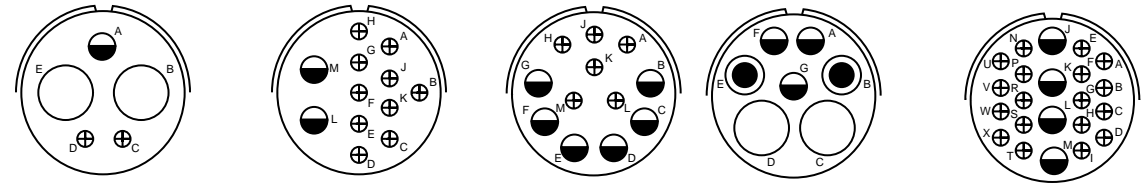
Insert Arrangement	24-21*	24-22	24-24	24-27*	24-28
Service Rating	D	D	A	E	Inst.
Number of Contacts	1 9	4	16	7	24
Contact Size	8 16	8	16	16	16

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables



Insert Arrangement	24-80*	28-1	28-2	28-3*	28-4*
Service Rating	Inst.	A, J, E = D; Bal. = A	D	E	G, P, S = E; Bal. = D
Number of Contacts	23	3 6	2 12	3	2 7
Contact Size	16	8 12	12 16	8	12 16

26482 Matrix 2
83723 III Matrix | Pyle



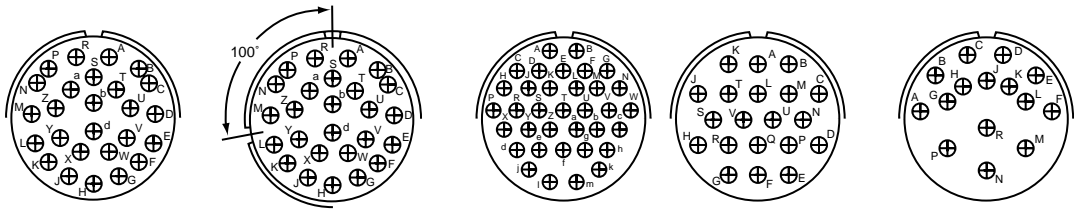
Insert Arrangement	28-5*	28-8*	28-9	28-10	28-11
Service Rating	D	L, M = E; B = D; Bal. = A	D	G = D, Bal. = A	A
Number of Contacts	2 1 2	2 10	6 6	2 2 3	4 18
Contact Size	4 12 16	12 16	12 16	4 8 12	12 16

5015 Crimp Rear Release Matrix

22992 Class I

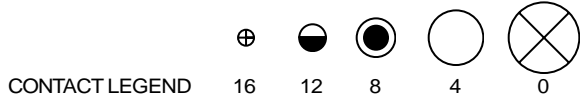
Back-Shells

Options Others



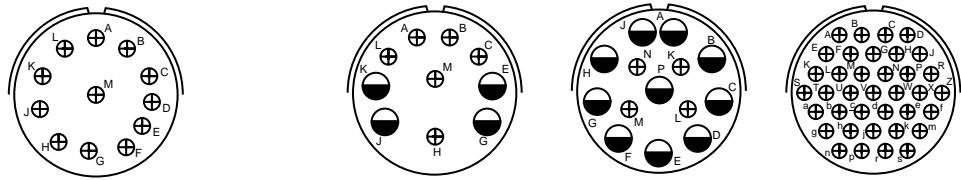
Insert Arrangement	28-12	28-13	28-15	28-16**	28-17
Service Rating	A	A	A	A	R = B; M, N, P = D; Bal. = A
Number of Contacts	26	26	35	20	15
Contact Size	16	16	16	16	16

* Consult Amphenol Aerospace for availability.

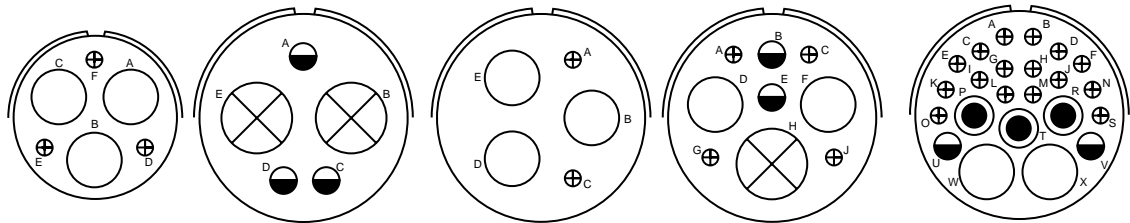


MIL-DTL-5015 Crimp Rear Release Insert Arrangements

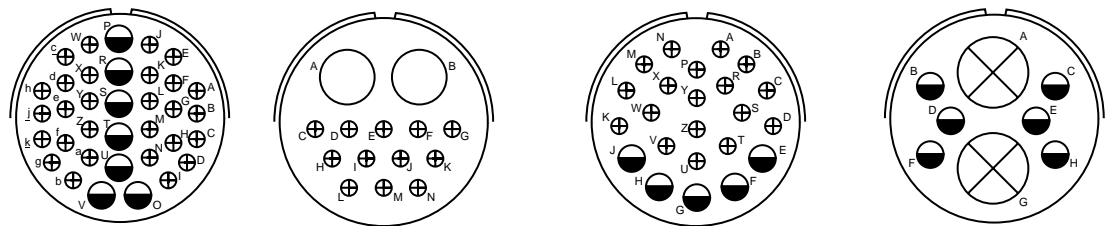
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



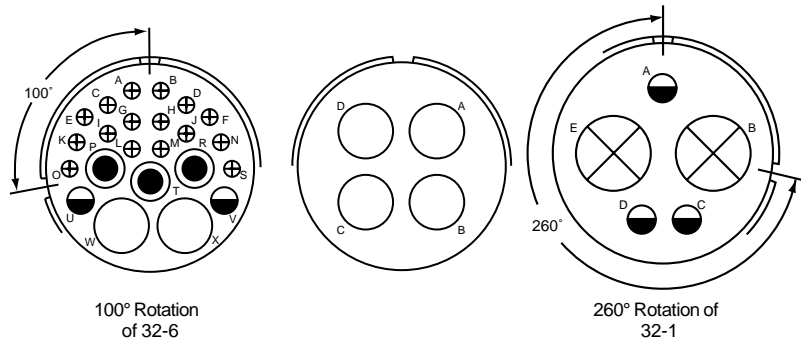
Insert Arrangement	28-18*	28-19*	28-20	28-21
Service Rating	M = C; G, H, J, K, L = D; A, B = A; Bal. = Inst.	H, M = B; A, B = D; Bal. = A	A	A
Number of Contacts	12	4 6	10 4	37
Contact Size	16	12 16	12 16	16



Insert Arrangement	28-22	32-1	32-2*	32-3*	32-6
Service Rating	D	A = E; B, C, D, E = D	E	D	A
Number of Contacts	3 3	2 3	3 2	1 2 2 4	2 3 2 16
Contact Size	4 16	0 12	4 16	0 4 12 16	4 8 12 16

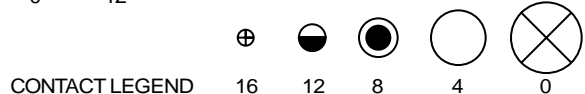


Insert Arrangement	32-7	32-9	32-13	32-15
Service Rating	A, B, h, j = Inst.; Bal. = A	D	D	D
Number of Contacts	7 28	2 12	5 18	2 6
Contact Size	12 16	4 16	12 16	0 12



Insert Arrangement	32-16	32-17	32-19
Service Rating	A	D	A = E, Bal. = D
Number of Contacts	2 3 2 16	4	2 3
Contact Size	4 8 12 16	4	0 12

* Consult Amphenol Aerospace for availability.
 ** Inactive for new design



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

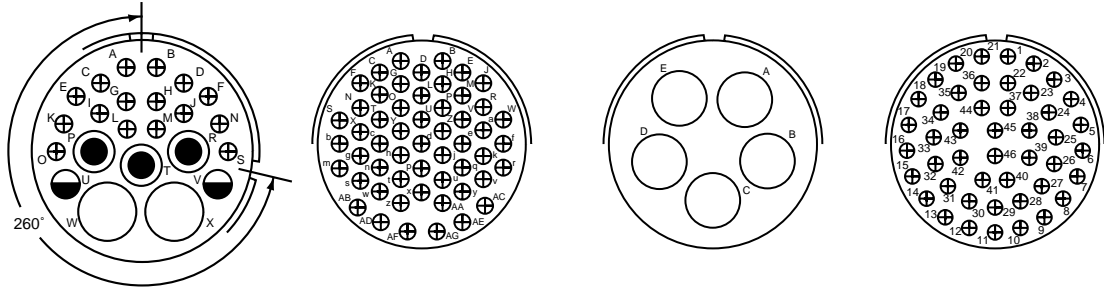
22992
Class 1

Back-Shell's

Options
Others

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

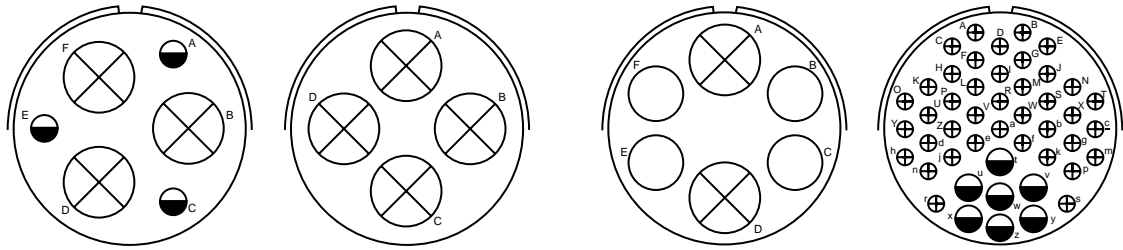
- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



260° Rotation of 32-6

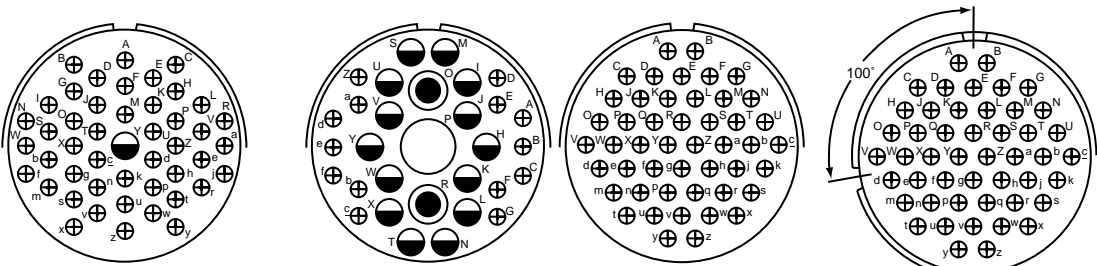
Insert Arrangement	32-20				32-22*				32-63				32-73			
Service Rating	A				A				D				A			
Number of Contacts	2	3	2	16	54				5				46			
Contact Size	4	8	12	16	16				4				16			

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables



Insert Arrangement	36-3		36-5		36-6		36-7	
Service Rating	D		A		A		A	
Number of Contacts	3	3	4		2	4	7	40
Contact Size	0	12	0		0	4	12	16

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

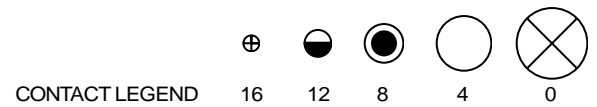


100° Rotation of 36-10

Insert Arrangement	36-8		36-9				36-10		36-11	
Service Rating	A		A				A		A	
Number of Contacts	1	46	1	2	14	14	48		48	
Contact Size	12	16	4	8	12	16	16		16	

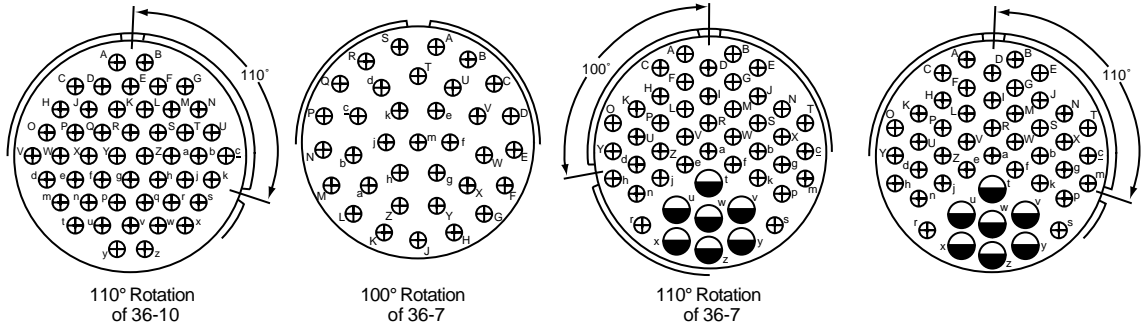
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

* Consult Amphenol Aerospace for availability.

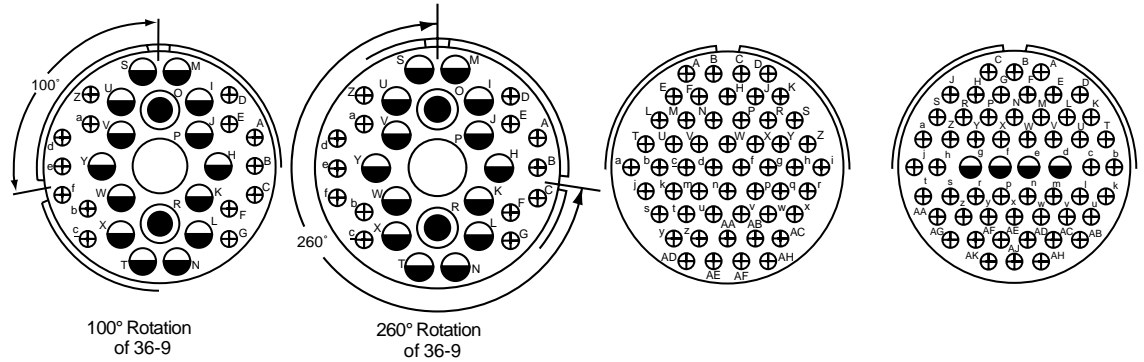


MIL-DTL-5015 Crimp Rear Release Insert Arrangements

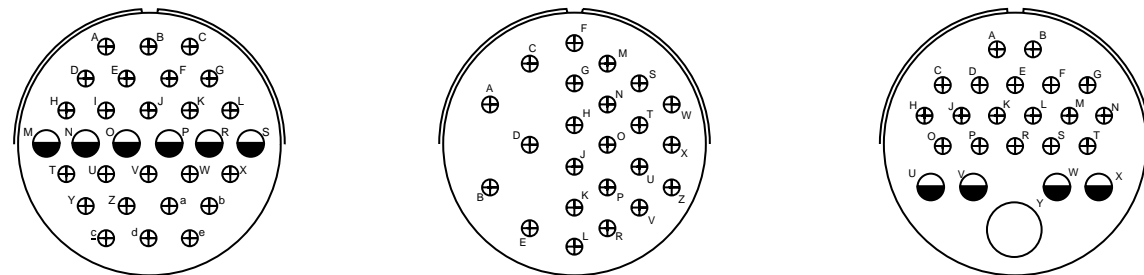
Front Face of Pin Insert or Rear Face of Socket Insert Illustrated



Insert Arrangement	36-12	36-15	36-16		36-17	
Service Rating	A	M = D, Bal. = A	A		A	
Number of Contacts	48	35	7	40	7	40
Contact Size	16	16	12	16	12	16

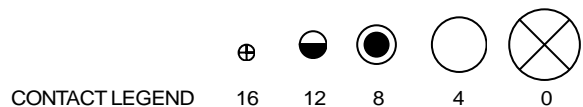


Insert Arrangement	36-18				36-21				36-52	36-66*	
Service Rating	A				A				A	A	
Number of Contacts	1	2	14	14	1	2	14	14	52	4	52
Contact Size	4	8	12	16	4	8	12	16	16	12	16



Insert Arrangement	40-1		40-2*	40-3*		
Service Rating	D		D	D		
Number of Contacts	6	24	23	1	4	18
Contact Size	12	16	16	4	12	16

* Consult Amphenol Aerospace for availability.



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shell's

Options Others

Front Face of Pin Insert or Rear Face of Socket Insert Illustrated

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

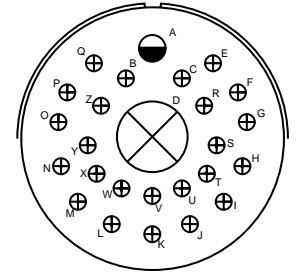
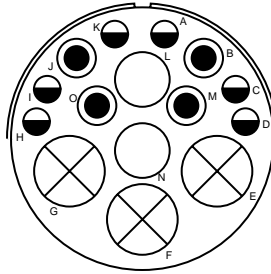
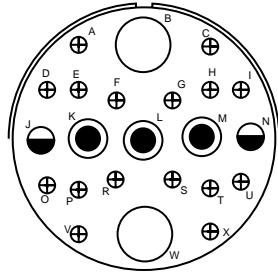
- 26500 Pyle

- 5015 Crimp Rear Release Matrix

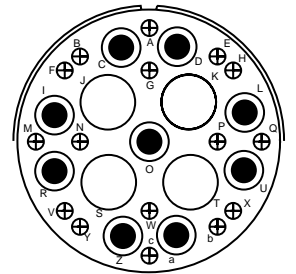
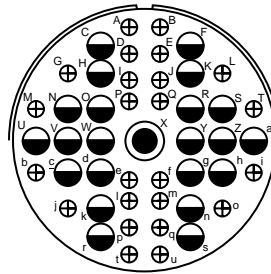
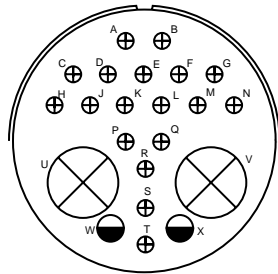
- 22992 Class I

- Back-Shells

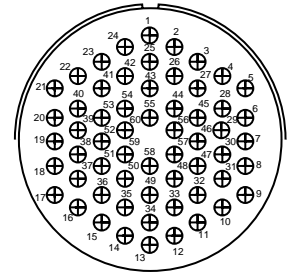
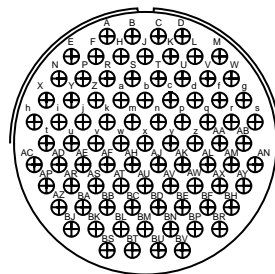
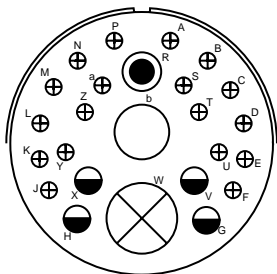
- Options Others



Insert Arrangement	40-4*				40-5*				40-6*		
Service Rating	D				A				D		
Number of Contacts	2	3	2	16	3	2	4	6	1	1	24
Contact Size	4	8	12	16	0	4	8	12	0	12	16

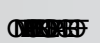
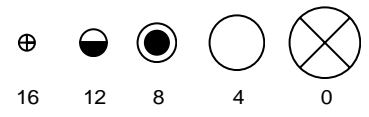


Insert Arrangement	40-7*			40-9			40-10*		
Service Rating	P, Q, U, V, W, X = A; Bal. = D			A			A		
Number of Contacts	2	2	18	1	22	24	4	9	16
Contact Size	0	12	16	8	12	16	4	8	16



Insert Arrangement	40-11*					40-56	40-62*
Service Rating	D					A	A
Number of Contacts	1	1	1	4	18	85	60
Contact Size	0	4	8	12	16	16	16

* Consult Amphenol Aerospace for availability.



MIL-DTL-5015 Crimp Rear Release Class Descriptions, Performance Specifications

CLASS DESCRIPTIONS

Military MIL-DTL-5015	
Class L*	Aluminum shell, electroless nickel finish, fluid resistant insert
Class W	Aluminum shell, cadmium olive drab finish, fluid resistant insert
Class LS	Stainless steel shell, passivated, fluid resistant insert
Class KT**	Firewall, steel shell, cadmium olive drab finish, non-flammable hard dielectric and fluid resistant insert
Class KS	Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert

Amphenol/Matrix	
Class A	Aluminum shell, black anodize finish, fluid resistant insert
Class F	Aluminum shell, electroless nickel finish, fluid resistant insert
Class W	Aluminum shell, cadmium/olive drab finish, fluid resistant insert
Class FS	Stainless steel shell, passivated, fluid resistant insert
Class KT	Firewall, steel shell, cadmium olive drab finish, non-flammable hard dielectric and fluid resistant insert
Class KS	Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert

* Class L inactivates older Class U (aluminum, electroless nickel)

** Class KT (ferrous alloy, cadmium/olive drab) inactivates older Class K (ferrous alloy, electroless nickel)

PERFORMANCE SPECIFICATIONS

VOLTAGE RATING

Altitude	Inst.	A	D	E	B	C
Sea Level	1000	2000	2800	3500	4500	7000
50,000 ft.	400	600	675	750	825	975
70,000 ft.	260	360	400	440	480	560
110,000 ft.	200	200	200	200	200	200

SHOCK

Wired, mated connectors are subjected to one shock in each of three mutually perpendicular axes with pulse of an approximate half sine wave of 50g magnitude for a duration of 11 milliseconds. All contacts wired in series circuit with 100 ±10 Milliampères of current flow.

OPERATING TEMPERATURE RANGE

Classes L, LS and KS have temperature range of -55°C (-75°F) to 200°C (392°F)

Classes W and KT have temperature range of -55°C (-75°F) to 175°C (347°F)

ENVIRONMENTAL SEAL

Wired, mated connectors with the specified accessory attached will meet the altitude immersion test specified in MIL-DTL-5015.

DURABILITY

Minimum of 100 mating cycles.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
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EMI Filter
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26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class I

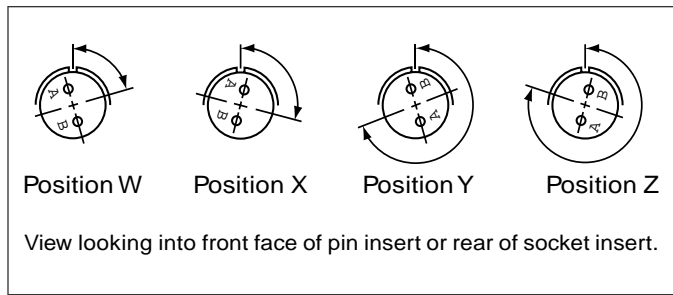
Back-
Shells

Options
Others

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate rotations are available as indicated in the accompanying charts.

As shown in the diagram below, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counter-clockwise the same number of degrees in respect to the normal shell key.

The charts give the W, X, Y, Z positions for the alternate rotations available for the insert arrangements of the rear release MIL-DTL-5015 series of connectors. If an insert arrangement number is not given, then there is no available alternate rotation for that pattern.



The following insert arrangements have the same alternate insert rotations for W, X, Y and Z, which are:

Degrees			
W	X	Y	Z
80	110	250	280

16-7	20-22	24-4	28-4	28-21	40-3
18-5	22-6	24-5	28-8	32-1	40-4
18-9	22-12	24-6	28-9	32-3	40-5
18-13	22-14	24-7	28-10	32-6	40-6
18-14	22-15	24-12	28-11	32-9	40-7
20-7	22-17	24-16	28-15	32-13	40-11
20-8	22-18	24-20	28-16	32-22	
20-9	22-19	24-21	28-17	36-7	
20-14	22-21	24-28	28-19	36-8	
20-16	24-1	28-1	28-20	40-2	

Insert Arrangement	Degrees			
	W	X	Y	Z
12S-3	70	145	215	290
14S-2	-	120	240	-
14S-5	-	110	-	-
14S-7	90	180	270	-
14S-9	70	145	215	290
16S-1	80	-	-	280
16S-4	35	110	250	325
16S-8	-	170	265	-
16-9	35	110	250	325
16-10	90	180	270	-
16-11	35	110	250	325
16-13	35	110	250	325
18-1	70	145	215	290
18-4	35	110	250	325
18-8	70	-	-	290
18-10	-	120	240	-
18-11	-	170	265	-
18-12	80	-	-	280
18-15	-	120	240	-
18-19	-	120	240	-
18-22	70	145	215	290
20-4	45	110	250	-
20-15	80	-	-	280

Insert Arrangement	Degrees			
	W	X	Y	Z
20-17	90	180	270	-
20-18	35	110	250	325
20-19	90	180	270	-
20-21	35	110	250	325
20-24	35	110	250	325
20-27	35	110	250	325
20-29	80	-	-	280
22-2	70	145	215	290
22-4	35	110	250	325
22-5	35	110	250	325
22-9	70	145	215	290
22-10	35	110	250	325
22-11	35	110	250	325
22-22	-	110	250	-
22-23	35	-	250	-
22-27	80	-	250	280
22-36	90	-	270	-
24-2	80	-	-	280
24-10	80	-	-	280
24-11	35	110	250	325
24-22	45	110	250	-
24-27	80	-	-	280
24-80	35	145	240	300

Insert Arrangement	Degrees			
	W	X	Y	Z
28-2	35	110	250	325
28-3	70	145	215	290
28-5	35	110	250	325
28-12	90	180	270	-
28-18	70	145	215	290
28-22	70	145	215	290
32-2	70	145	215	290
32-7	80	125	235	280
32-15	35	110	250	280
32-17	45	110	250	-
32-73	36	-	-	-
36-3	70	145	215	290
36-5	-	120	240	-
36-6	35	110	250	325
36-9	80	125	235	280
36-10	80	125	235	280
36-15	60	125	245	305
36-52	72	144	216	288
36-66	110	250	260	280
40-1	65	130	235	300
40-9	65	125	255	310
40-10	65	125	255	310
40-56	72	144	216	288
40-62	30	130	220	290

MIL-DTL-5015 Crimp Rear Release

How to Order

	1.	2.	3.	4.	5.	6.	7.
MIL-DTL-5015 with rear release crimp contacts	Connector Type	Shell Style	Service class	Shell Size-Insert Arrangement	Contact Types	Alternate Positions	Modification Number
MILITARY	MS	3456	L	16S-8	P	W	NA
COMMERCIAL	944	6	F	16S-8	P	W	(XXX)

Step 1. Military Connector Type

MS	Designates Military Standard
----	------------------------------

Step 2. Select a Shell Style

THREADED COUPLING CONNECTORS

3450	Wall mounting receptacle
3451	Cable connecting receptacle
3452	Box mounting receptacle
3454	Jam nut receptacle
3456	Straight plug
3459	Straight plug with self-locking coupling nut

Step 3. Select a Service Class

L	Aluminum shell, electroless nickel finish, fluid resistant insert
W	Aluminum shell, cadmium olive drab finish, fluid resistant insert
LS	Stainless steel shell, passivated, fluid resistant insert
Firewall Styles only available for 3450, 3456, 3459 per mil spec:	
KT	Firewall, steel shell, cadmium/olive drab finish, non-flammable hard dielectric and fluid resistant insert
KS	Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert

Note: Class L inactivates older Class U.

Class K is inactive and has been replaced by Class KT for all applications.

Step 4. Select a Shell Size & Insert Arrangement see pages 434, 435

First number represents Shell Size, second number is the Insert Arrangement.

Step 5. Select a Contact Type

	Designates
P	Pin
S	Socket
A	Less pins
B	Less sockets

Step 6. Alternate Positions

"W", "X", "Y", "Z" designate that insert is rotated in its shell from normal position. No letter required for normal (no rotation) position. See page 446 for description of alternate positions.

Step 1. Select a Commercial Connector Type

944	Designates Amphenol/Matrix Commercial Series
981	Designates self locking/Quick disconnect (+)(-) lanyard

Step 2. Select a Shell Style

THREADED COUPLING CONNECTORS

0	Wall mounting receptacle
1	Cable connecting receptacle
2	Box mounting receptacle
4	Jam nut receptacle
6	Straight plug
Self Locking/Quick disconnect (981) styles:	
6	Straight plug with self-locking coupling nut
7	Quick disconnect plug with lanyard
8	Quick disconnect plug without lanyard

Step 3. Select a Service Class

A	Aluminum shell, black anodize finish, fluid resistant insert (not MIL-Spec)
F	Aluminum shell, electroless nickel finish, fluid resistant insert
W	Aluminum shell, cadmium olive drab finish, fluid resistant insert
FS	Stainless steel shell, passivated, fluid resistant insert
RS	Fluid resistant insert
KT	Firewall, steel shell, cadmium/olive drab finish, non-flammable hard dielectric and fluid resistant insert
KS	Firewall, stainless steel shell, passivated, non-flammable hard dielectric and fluid resistant insert

Step 4. Select a Shell Size & Insert Arrangement see pages 434, 435

First number represents Shell Size, second number is the Insert Arrangement.

Step 5. Select a Contact Type

	Designates
P	Pin
S	Socket

Step 6. Alternate Positions

"W", "X", "Y", "Z" designate that insert is rotated in its shell from normal position. No letter required for normal (no rotation) position. See page 446 for description of alternate positions.

Step 7. Modification Number

Consult Amphenol Aerospace for information.

For strain reliefs use the following modification codes:

- (189) E-nut M85049/31 configuration
- (190) Straight strain relief M85049/52 configuration
- (191) 90° strain relief M85049/51 configuration

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class 1

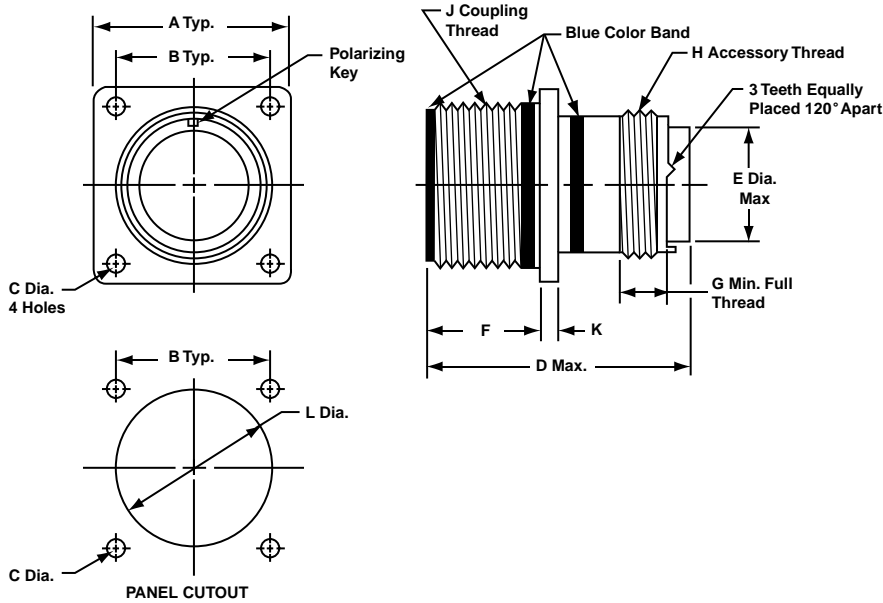
Back-Shell's

Options
Others

38999

PART # Receptacle Shell, Flange Wall Mount, Threaded Coupling.
To complete, see how to order page 447

MIL-DTL-5015	Connector Type	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Military	MS	3450	L	16S-8	P	W	NA
Commercial	944	0	F	16S-8	P	W	xxx



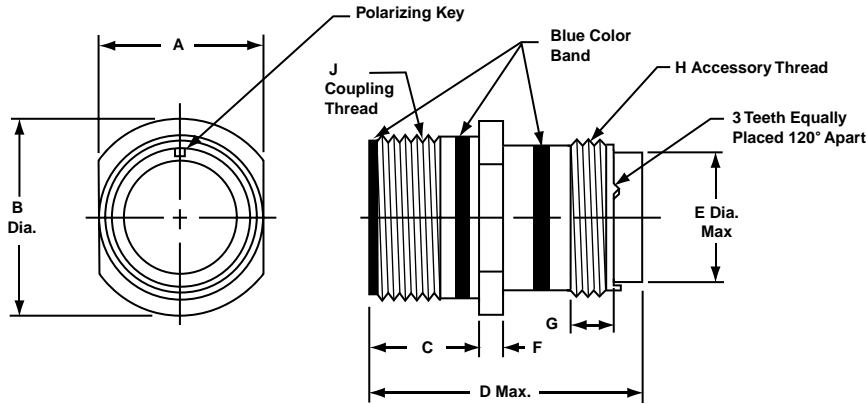
Shell Size*	A ±.031	B	C Dia. +.010 -0.005		D Max.		E Dia. Max.	F	G Min.	H Thread Class 2A	J Thread Class 2A	K	L Dia. ±.010
			Class A, F, R, W	Class K	Size 16 & 12 Contacts	Size 8, 4, 0 Contacts							
8S	.875	.594	.120	.150	2.031	—	.305	.593/.562	.290	.5000-20 UNEF	.5000-28 UNEF	.083	.562
10S	1.000	.719	.120	.150	2.031	—	.405	.593/.562	.290	.6250-24 UNEF	.6250-24 UNEF	.083	.688
10SL	1.000	.719	.120	.150	2.031	—	.405	.593/.562	.290	.6250-24 UNEF	.6250-24 UNEF	.083	.688
12	1.094	.812	.120	.150	2.125	—	.549	.781/.750	.290	.7500-20 UNEF	.7500-20 UNEF	.083	.812
12S	1.094	.812	.120	.150	2.031	—	.549	.593/.562	.290	.7500-20 UNEF	.7500-20 UNEF	.083	.812
14	1.188	.906	.120	.150	2.125	—	.665	.781/.750	.290	.8750-20 UNEF	.8750-20 UNEF	.083	.938
14S	1.188	.906	.120	.150	2.031	—	.665	.593/.562	.290	.8750-20 UNEF	.8750-20 UNEF	.083	.938
16	1.281	.969	.120	.150	2.125	2.500	.790	.781/.750	.290	1.0000-20 UNEF	1.0000-20 UNEF	.083	1.062
16S	1.281	.969	.120	.150	2.031	—	.790	.593/.562	.290	1.0000-20 UNEF	1.0000-20 UNEF	.083	1.062
18	1.375	1.062	.120	.177	2.125	2.500	.869	.781/.750	.290	1.0625-18 UNEF	1.1250-18 UNEF	.125	1.188
20	1.500	1.156	.120	.177	2.125	2.500	.994	.781/.750	.290	1.1875-18 UNEF	1.2500-18 UNEF	.125	1.312
22	1.625	1.250	.120	.177	2.125	2.500	1.119	.781/.750	.290	1.3125-18 UNEF	1.3750-18 UNEF	.125	1.438
24	1.750	1.375	.147	.177	2.125	2.500	1.244	.843/.812	.290	1.4375-18 UNEF	1.5000-18 UNEF	.125	1.562
28	2.000	1.562	.147	.177	2.125	2.500	1.465	.843/.812	.467	1.7500-18 UNS	1.7500-18 UNS	.125	1.812
32	2.250	1.750	.173	.209	2.125	2.500	1.715	.906/.875	.467	2.0000-18 UNS	2.0000-18 UNS	.125	2.062
36	2.500	1.938	.173	.209	2.125	2.500	1.930	.906/.875	.467	2.2500-16 UN	2.2500-16 UN	.125	2.312
40	2.750	2.188	.173	.209	2.125	2.500	2.145	.906/.875	.467	2.5000-16 UN	2.5000-16 UN	.125	2.562

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

MS3451, MIL-DTL-5015 Crimp Rear Release Cable Connecting Receptacle

PART # Receptacle Shell, Cable Connecting, Threaded Coupling.
To complete, see how to order page 447

MIL-DTL-5015	Connector Type	Connector Style	Service Class	Shell Size- Insert Arrangement	Contact Type	Insert Rotation	Modification Number
Military	MS	3451	L	16S-8	P	W	NA
Commercial	944	1	F	16S-8	P	W	xxx



Shell Size	A	B Dia. ±.031	C	D Max.		E Dia. Max.	F ±.015	G Min.	H Thread Class 2A	J Thread Class 2A
				Size 16 & 12 Contacts	Size 8, 4, 0 Contacts					
8S	.504/.496	.729	.577/.562	2.031	-	.305	.083	.290	.5000-20 UNEF	.5000-28 UNEF
10S	.629/.621	.854	.577/.562	2.031	-	.405	.083	.290	.6250-24 UNEF	.6250-24 UNEF
10SL	.629/.621	.854	.577/.562	2.031	-	.405	.083	.290	.6250-24 UNEF	.6250-24 UNEF
12	.754/.746	.974	.765/.750	2.125	-	.549	.083	.290	.7500-20 UNEF	.7500-20 UNEF
12S	.754/.746	.974	.577/.562	2.031	-	.549	.083	.290	.7500-20 UNEF	.7500-20 UNEF
14	.879/.871	1.099	.765/.750	2.125	-	.665	.083	.290	.8750-20 UNEF	.8750-20 UNEF
14S	.879/.871	1.099	.577/.562	2.031	-	.665	.083	.290	.8750-20 UNEF	.8750-20 UNEF
16	1.005/.996	1.224	.765/.750	2.125	2.500	.790	.083	.290	1.0000-20 UNEF	1.0000-20 UNEF
16S	1.005/.996	1.224	.577/.562	2.031	-	.790	.083	.290	1.0000-20 UNEF	1.0000-20 UNEF
18	1.131/1.121	1.349	.765/.750	2.125	2.500	.869	.125	.290	1.0625-18 UNEF	1.1250-18 UNEF
20	1.256/1.246	1.474	.765/.750	2.125	2.500	.994	.125	.290	1.1875-18 UNEF	1.2500-18 UNEF
22	1.381/1.371	1.599	.765/.750	2.125	2.500	1.119	.125	.290	1.3125-18 UNEF	1.3750-18 UNEF
24	1.506/1.496	1.715	.827/.812	2.125	2.500	1.244	.125	.290	1.4375-18 UNEF	1.5000-18 UNEF
28	1.756/1.746	1.974	.827/.812	2.125	2.500	1.465	.125	.467	1.7500-18 UNS	1.7500-18 UNS
32	2.007/1.996	2.224	.890/.870	2.125	2.500	1.715	.125	.467	2.0000-18 UNS	2.0000-18 UNS
36	2.257/2.246	2.474	.890/.870	2.125	2.500	1.930	.125	.467	2.2500-16 UN	2.2500-16 UN
40	2.511/2.456	2.724	.890/.870	2.125	2.500	2.145	.125	.467	2.5000-16 UN	2.5000-16 UN

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shell's

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

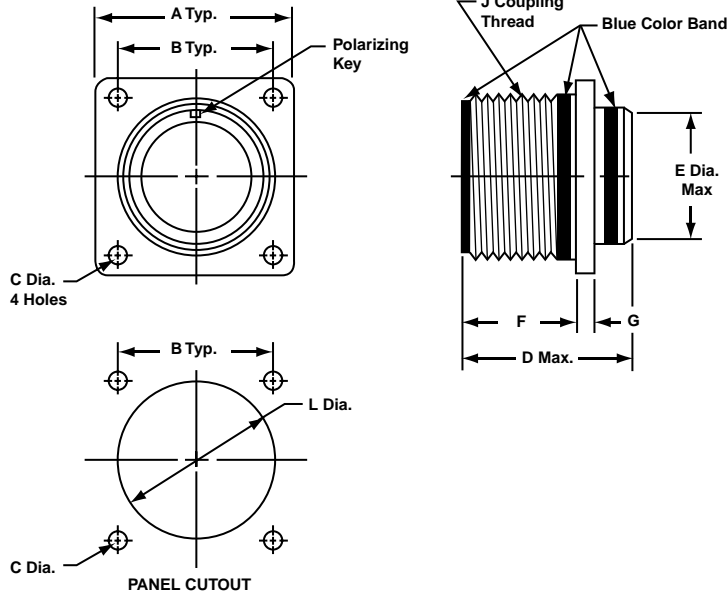
22992 Class I

Back-Shells

Options Others

PART # Receptacle Shell, Flange Mount, Threaded Coupling.
To complete, see how to order page 447

MIL-DTL-5015	Connector Type	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Military	MS	3452	L	16S-8	P	W	NA
Commercial	944	2	F	16S-8	P	W	xxx



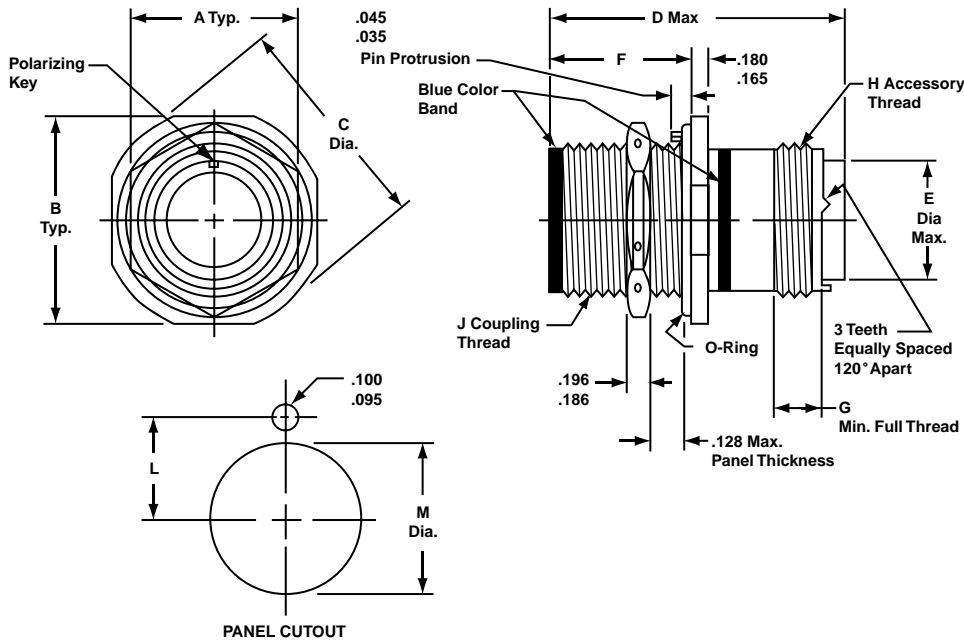
Shell Size*	A ±.031	B	C Dia.	D Max.		E Dia. ±.016	F	G ±.015	J Thread Class 2A	L Dia. ±.010
				Size 16 & 12 Contacts	Size 8, 4, 0 Contacts					
8S	.875	.594	.130/.115	1.662	—	.500	.578/.562	.083	.5000-28 UNEF	.562
10S	1.000	.719	.130/.115	1.662	—	.625	.578/.562	.083	.6250-24 UNEF	.688
10SL	1.000	.719	.130/.115	1.662	—	.625	.578/.562	.083	.6250-24 UNEF	.688
12	1.094	.812	.130/.115	1.662	—	.750	.765/.750	.083	.7500-20 UNEF	.812
12S	1.094	.812	.130/.115	1.662	—	.750	.578/.562	.083	.7500-20 UNEF	.812
14	1.188	.906	.130/.115	1.662	—	.875	.765/.750	.083	.8750-20 UNEF	.938
14S	1.188	.906	.130/.115	1.662	—	.875	.577/.562	.083	.8750-20 UNEF	.938
16	1.281	.969	.130/.115	1.662	1.937	1.000	.765/.750	.083	1.0000-20 UNEF	1.062
16S	1.281	.969	.130/.115	1.662	—	1.000	.577/.562	.083	1.0000-20 UNEF	1.062
18	1.375	1.062	.130/.115	1.662	1.937	1.062	.765/.750	.125	1.1250-18 UNEF	1.188
20	1.500	1.156	.130/.115	1.662	1.937	1.187	.765/.750	.125	1.2500-18 UNEF	1.312
22	1.625	1.250	.130/.115	1.662	1.937	1.312	.765/.750	.125	1.3750-18 UNEF	1.438
24	1.750	1.375	.157/.142	1.662	1.937	1.437	.827/.812	.125	1.5000-18 UNEF	1.562
28	2.000	1.562	.157/.142	1.662	1.937	1.750	.827/.812	.125	1.7500-18 UNS	1.812
32	2.250	1.750	.183/.168	1.662	1.937	2.000	.988/.875	.125	2.0000-18 UNS	2.062
36	2.500	1.938	.183/.168	1.662	1.937	2.250	.988/.875	.125	2.2500-16 UN	2.312
40	2.750	2.188	.183/.168	1.662	1.937	2.500	.988/.875	.125	2.5000-16 UN	2.562

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

MS3454, MIL-DTL-5015 Crimp Rear Release Jam Nut Receptacle

PART # Receptacle Shell, Jam Nut Mount, Threaded Coupling
To complete, see how to order page 447

MIL-DTL-5015	Connector Type	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Military	MS	3454	L	16S-8	P	W	NA
Commercial	944	4	F	16S-8	P	W	xxx



Shell Size*	A ±.010	B ±.005	C Dia. ±.005	D Max.		E Dia. Max.	F ±.005	G Min.	H Thread Class 2A	J Thread Class 2A	Panel Cutout Dimensions	
				Size 16 & 12 Contacts	Size 8, 4, 0 Contacts						L ±.005	M Dia. +.015 - .000
8S	.687	1.187	1.272	2.031	—	.305	.720	.290	.5000-20 UNEF	.5000-28 UNEF	.323	.505
10S	.812	1.312	1.397	2.031	—	.405	.720	.290	.6250-24 UNEF	.6250-24 UNEF	.385	.630
10SL	.812	1.312	1.397	2.031	—	.405	.720	.290	.6250-24 UNEF	.6250-24 UNEF	.385	.630
12	.937	1.437	1.522	2.125	—	.549	.970	.290	.7500-20 UNEF	.7500-20 UNEF	.448	.755
12S	.937	1.437	1.522	2.031	—	.549	.720	.290	.7500-20 UNEF	.7500-20 UNEF	.448	.755
14	1.125	1.562	1.647	2.125	—	.665	.970	.290	.8750-20 UNEF	.8750-20 UNEF	.510	.880
14S	1.125	1.562	1.647	2.031	—	.665	.720	.290	.8750-20 UNEF	.8750-20 UNEF	.510	.880
16	1.250	1.687	1.772	2.125	2.500	.790	.970	.290	1.0000-20 UNEF	1.0000-20 UNEF	.573	1.005
16S	1.250	1.687	1.772	2.031	—	.790	.720	.290	1.0000-20 UNEF	1.0000-20 UNEF	.573	1.005
18	1.375	1.812	1.897	2.125	2.500	.869	.970	.290	1.0625-18 UNEF	1.1250-18 UNEF	.635	1.130
20	1.500	1.937	2.022	2.125	2.500	.994	.970	.290	1.1875-18 UNEF	1.2500-18 UNEF	.698	1.255
22	1.625	2.156	2.241	2.125	2.500	1.119	.970	.290	1.3125-18 UNEF	1.3750-18 UNEF	.760	1.380
24	1.750	2.281	2.366	2.125	2.500	1.244	.970	.290	1.4375-18 UNEF	1.5000-18 UNEF	.823	1.505
28	2.000	2.531	2.616	2.125	2.500	1.465	.970	.467	1.7500-18 UNS	1.7500-18 UNS	.948	1.755
32	2.375	2.781	2.866	2.125	2.500	1.715	.970	.467	2.0000-18 UNS	2.0000-18 UNS	1.073	2.005
36	2.625	3.031	3.116	2.125	2.500	1.930	.970	.467	2.2500-16 UN	2.2500-16 UN	1.198	2.255
40	2.875	3.281	3.366	2.125	2.500	2.145	.970	.467	2.5000-16 UN	2.5000-16 UN	1.323	2.505

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

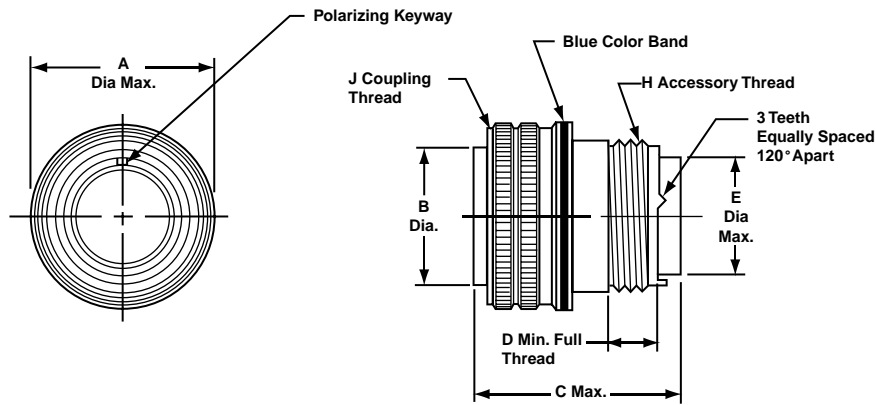
22992 Class I

Back-Shells

Options Others

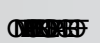
PART # Plug Shell, Threaded Coupling.
To complete, see how to order page 447

MIL-DTL-5015 Connector Type	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Military MS	3456	L	16S-8	P	W	NA
Commercial 944	6	F	16S-8	P	W	xxx



Shell Size*	A Dia. Max.	B Dia. ±.005	C Max.		D Min.	E Dia. Max.	H Thread Class 2A	J Thread Class 2B
			Size 16 & 12 Contacts	Size 8, 4, 0 Contacts				
8S	.844	.360	2.031	-	.290	.305	.5000-20 UNF	.5000-28 UNEF
10S	.969	.435	2.031	-	.290	.405	.6250-24 UNEF	.6250-24 UNEF
10SL	.969	.441**	2.031	-	.290	.405	.6250-24 UNEF	.6250-24 UNEF
12	1.062	.550	2.125	-	.290	.549	.7500-20 UNEF	.7500-20 UNEF
12S	1.062	.550	2.031	-	.290	.549	.7500-20 UNEF	.7500-20 UNEF
14	1.156	.670	2.125	-	.290	.665	.8750-20 UNEF	.8750-20 UNEF
14S	1.156	.670	2.031	-	.290	.665	.8750-20 UNEF	.8750-20 UNEF
16	1.250	.800	2.125	2.500	.290	.790	1.0000-20 UNEF	1.0000-20 UNEF
16S	1.250	.800	2.031	-	.290	.790	1.0000-20 UNEF	1.0000-20 UNEF
18	1.344	.925	2.125	2.500	.290	.869	1.0625-18 UNEF	1.1250-18 UNEF
20	1.469	1.045	2.125	2.500	.290	.994	1.1875-18 UNEF	1.2500-18 UNEF
22	1.594	1.170	2.125	2.500	.290	1.119	1.3125-18 UNEF	1.3750-18 UNEF
24	1.719	1.295	2.125	2.500	.290	1.244	1.4375-18 UNEF	1.5000-18 UNEF
28	1.969	1.515	2.125	2.500	.467	1.465	1.7500-18 UNS	1.7500-18 UNS
32	2.219	1.765	2.125	2.500	.467	1.715	2.0000-18 UNS	2.0000-18 UNS
36	2.469	1.975	2.125	2.500	.467	1.930	2.2500-16 UN	2.2500-16 UN
40	2.719	2.225	2.125	2.500	.467	2.145	2.5000-16 UN	2.5000-16 UN

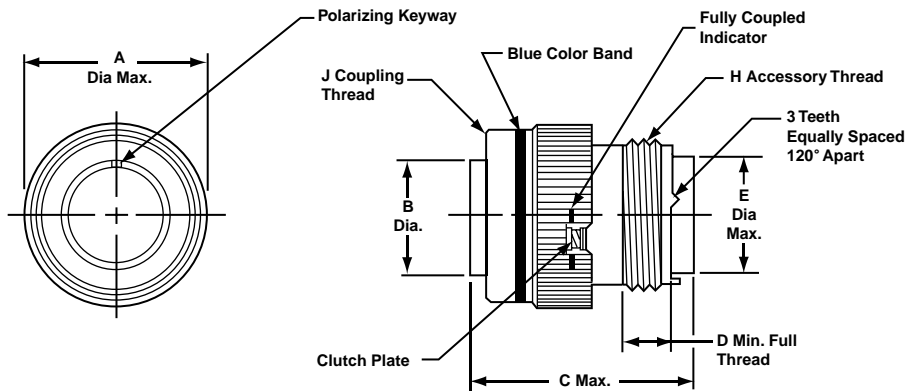
* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.
** Tolerance on this dimension is +.000 - .006



MS3459, MIL-DTL-5015 Crimp Rear Release Straight Plug with Self-locking Coupling Nut

PART # Plug Shell, Self-Locking, Threaded Coupling
To complete, see how to order page 447

MIL-DTL-5015	Connector Type	Shell Style	Service Class	Shell Size-Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Military	MS	3459	L	16S-8	P	W	NA
Commercial	981	6	F	16S-8	P	W	xxx



Shell Size*	A Dia. Max.	B Dia. ±.005	C Max.		D Min.	E Dia. Max.	H Thread Class 2A	J Thread Class 2B
			Size 16 & 12 Contacts	Size 8, 4, 0 Contacts				
8S	.963	.360	1.510	-	.290	.305	.5000-20 UNEF	.5000-28 UNEF
10S	1.088	.435	1.510	-	.290	.405	.6250-24 UNEF	.6250-24 UNEF
10SL	1.088	.441**	1.510	-	.290	.405	.6250-24 UNEF	.6250-24 UNEF
12	1.213	.550	1.780	-	.290	.549	.7500-20 UNEF	.7500-20 UNEF
12S	1.213	.550	1.510	-	.290	.549	.7500-20 UNEF	.7500-20 UNEF
14	1.358	.670	1.780	-	.290	.665	.8750-20 UNEF	.8750-20 UNEF
14S	1.358	.670	1.510	-	.290	.665	.8750-20 UNEF	.8750-20 UNEF
16	1.463	.800	1.780	2.500	.290	.790	1.0000-20 UNEF	1.0000-20 UNEF
16S	1.463	.800	1.510	-	.290	.790	1.0000-20 UNEF	1.0000-20 UNEF
18	1.588	.925	1.850	2.500	.290	.869	1.0625-18 UNEF	1.1250-18 UNEF
20	1.713	1.045	1.850	2.500	.290	.994	1.1875-18 UNEF	1.2500-18 UNEF
22	1.788	1.170	1.850	2.500	.290	1.119	1.3125-18 UNEF	1.3750-18 UNEF
24	1.963	1.295	1.850	2.500	.290	1.244	1.4375-18 UNEF	1.5000-18 UNEF
28	2.213	1.515	1.850	2.500	.467	1.465	1.7500-18 UNS	1.7500-18 UNS
32	2.463	1.765	1.850	2.500	.467	1.715	2.0000-18 UNS	2.0000-18 UNS
36	2.713	1.975	1.850	2.500	.467	1.930	2.2500-16 UN	2.2500-16 UN
40	2.963	2.225	1.850	2.500	.467	2.145	2.5000-16 UN	2.5000-16 UN

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.
** Tolerance on this dimension is +.000 - .006

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

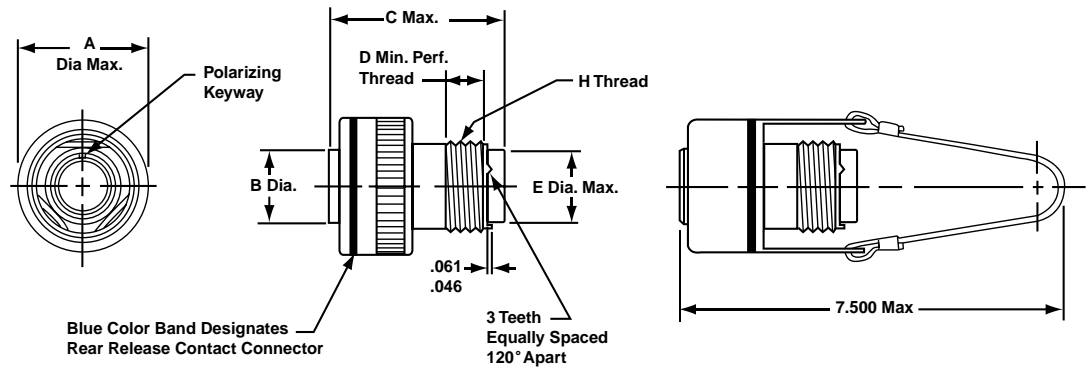
22992
Class I

Back-
Shells

Options
Others

PART # Plug Shell, Quick Disconnect, Push-pull Coupling
To complete, see how to order page 447

MIL-DTL-5015 Connector Type	Shell Style	Service Class	Shell Size— Insert Arrangement	Contact Type	Alternate Rotation	Modification Number
Commercial 981	7	L	16S-8	P	W	xxx
Commercial 981	8	F	16S-8	P	W	xxx

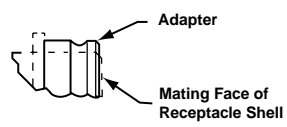


9818 Connector

9817 Connector with Lanyard

Shell Size*	A Dia. Max.	B Dia.	C Max.		D Min.	E Dia. Max.	H Thread Class 2A	Amphenol/ Matrix Part Number for Adapter Ring
			Size 16 & 12 Contacts	Size 8, 4, 0 Contacts				
8S	1.087	.360	2.031	—	.290	.305	.5000-20 UNF	2500-008-0X08
10S	1.224	.435	2.031	—	.290	.405	.6250-24 UNEF	2500-008-0X10
10SL	1.224	.441	2.031	—	.290	.405	.6250-24 UNEF	2500-008-0X10
12	1.355	.550	2.125	—	.290	.549	.7500-20 UNEF	2500-008-0X12
12S	1.355	.550	2.031	—	.290	.549	.7500-20 UNEF	2500-008-0X13
14	1.482	.670	2.125	—	.290	.665	.8750-20 UNEF	2500-008-0X14
14S	1.482	.670	2.031	—	.290	.665	.8750-20 UNEF	2500-008-0X15
16	1.609	.800	2.125	2.500	.290	.790	1.0000-20 UNEF	2500-008-0X16
16S	1.609	.800	2.031	—	.290	.790	1.0000-20 UNEF	2500-008-0X17
18	1.817	.925	2.125	2.500	.290	.869	1.0625-18 UNEF	2500-008-0X18
20	1.942	1.045	2.125	2.500	.290	.994	1.1875-18 UNEF	2500-008-0X20
22	2.075	1.170	2.125	2.500	.290	1.119	1.3125-18 UNEF	2500-008-0X22
24	2.203	1.295	2.125	2.500	.290	1.244	1.4375-18 UNEF	2500-008-0X24
28	2.516	1.515	2.125	2.500	.467	1.465	1.7500-18 UNS	2500-008-0X28
32	2.735	1.765	2.125	2.500	.467	1.715	2.0000-18 UNS	2500-008-0X32
36	3.015	1.975	2.125	2.500	.467	1.930	2.2500-16 UN	2500-008-0X36
40	3.306	2.225	2.125	2.500	.467	2.145	2.5000-16 UN	2500-008-0X40

* Consult Amphenol Aerospace for availability of shell sizes 44 and 48.
Receptacle Adapter Ring
Required to mate the quick disconnect plug with receptacle. Not furnished with the quick disconnect plug and must be ordered separately.
Note: Use Locktite Material on the threads for a permanent installation to the shell.



How to Order Adapter Ring

Part Number
2500-008-0 X XX

Shell Size (varies from connector shell size designation, see last column of table at left)

Finish

- 0 - Electroless Nickel
- 1 - Black Anodize
- 2 - Cadmium/Olive Drab
- 3 - Stainless Steel, Passivated

Amphenol® Matrix 5015 Connector With RADSOK® Contacts

For High Power Applications

Standard -), 4,
connectors with improved sealing

gaskets, wire seals and insert-to-shell seals

instead of standard rear release crimp contacts

available, including firewall styles and non-decoupling styles

RADSOK contacts provide high amperage capability with minimal voltage loss and low insertion forces.

The RADSOK contact has a hyperbolic, stamped grid configuration with the socket circular. As a male pin is inserted, axial members in the female socket deflect, enabling high current flow across the connection with minimal voltage loss.

See pages 561-563 for more information on RADSOK contacts.



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

**MS/STANDARD
CRIMP REAR RELEASE CONTACTS**

Contact Size	Wire Range		Socket Contacts		Pin Contacts	
	AWG	mm ²	Military Part Number	Amphenol/Matrix Part Number	Military Part Number	Amphenol/Matrix Part Number
16S*	20-16	0.5-1.4	M39029/30-217	M5100-033-1601L	M39029/29-212	M5000-029-0016L
16	20-16	0.5-1.4	M39029/30-218	M5100-033-1602L	M39029/29-212	M5000-029-0016L
12	14-12	2-3	M39029/30-219	M5100-033-0012	M39029/29-213	M5000-029-0012
8	10-8†	5-8.5	M39029/30-220	M5100-033-0008	M39029/29-214	M5000-029-0008
4	6-4†	13-21	M39029/30-221	M5100-033-0004	M39029/29-215	M5000-029-0004
0	2-0†	34-60	M39029/30-222	M5100-033-0000	M39029/29-216	M5000-029-0000

* Shorter wire barrel

Note: For information on thermocouple contacts, consult Amphenol Aerospace

† Use MS3348 bushing kit to accommodate smaller wire.

CONTACT CURRENT RATING AND RETENTION

Contact Size**	Current Rating		Contact Retention	
	Amperes Max.	Voltage Drop Millivolts	Axial Load	
			lb.	N
16	13	50	25	111.2
12	23	50	30	133.4
8	46	25	50	222.4
4	80	14	60	266.9
0	150	12	75	333.6

** Organize individual circuits to maintain heat rise within operating temperature requirements.

SEALING PLUGS

Contact Size	Sealing Plugs	
	Military Part Number	Amphenol/Matrix Part Number
16S	MS27488-16-3	10-405996-163
16	MS27488-16-3	10-405996-163
12	MS27488-12-3	10-405996-123
8	MS27488-8-3	10-405996-083
4	MS27488-4-3	10-405996-043
0	MS27488-0-3	10-405996-003

CRIMPING TOOLS

Contact Size	Wire Range		Finished Wire Dia. Range		Color Code	Crimping Tool Part Number	Turret or Positioner Part Number
	AWG	mm ²	Inch	mm			
16S	20-16	0.5-1.4	.053-.103	1.34-2.62	Red/White	M22520/1-01	M22520/1-02
16	20-16	0.5-1.4	.053-.103	1.34-2.62	Blue/White	M22520/1-01	M22520/1-02
12	14-12	2-3	.085-.158	2.15-4.01	Yell./White	M22520/1-01	M22520/1-02
8	10-8	5-8.5	.132-.255	3.35-6.48	White/Red	M22520/23-01	M22520/23-02
4	6-4	13-21	.237-.370	6.01-9.40	White/Blue	M22520/23-01	M22520/23-04
0	2-0	34-60	.360-.550	9.14-13.97	White/Yell.	M22520/23-01	M22520/23-05

INSERTION/REMOVAL TOOLS

Contact Size	Color Code	Military Part Number	Amphenol/Matrix Part Number
16	Blue/White	M81969/14-03	10-538988-016
12	Yellow/White	M81969/14-04	10-538988-012
8	Red	M81969/14-06	6500-018-0008
4	Blue	M81969/14-07	6500-018-0004
0	Yellow	M81969/14-08	6500-018-0000

Amphenol installation instructions, L-2106, gives information on insertion, removal and crimping of contacts for Matrix MIL-DTL-5015 connectors.

BACKSHELLS

The section of this catalog called "Backshells" covers the backshells for MIL-DTL-5015 that are provided through Amphenol PCD.

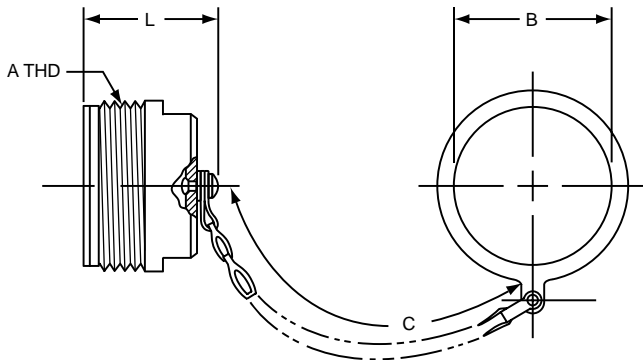
Please refer to this section for:

SAE J1455, 4, MIL-DTL-83723 (Series I & III).

MIL-DTL-83723 (Series I & III).

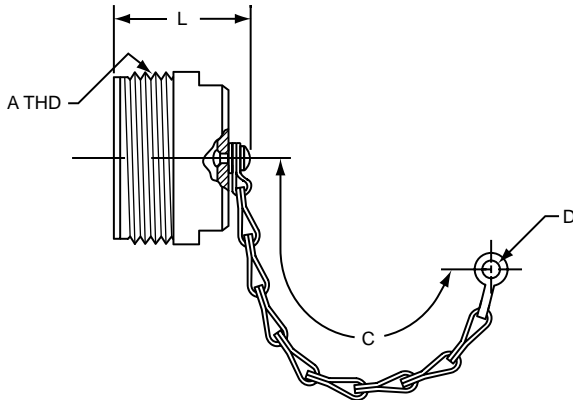
38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB
HIGH SPEED
Fiber Optics
Contacts Connectors Cables
EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle
5015 Crimp Rear Release Matrix
22992 Class I
Back-Shells
Options Others

PLUG PROTECTION CAP 10-329393-XX*



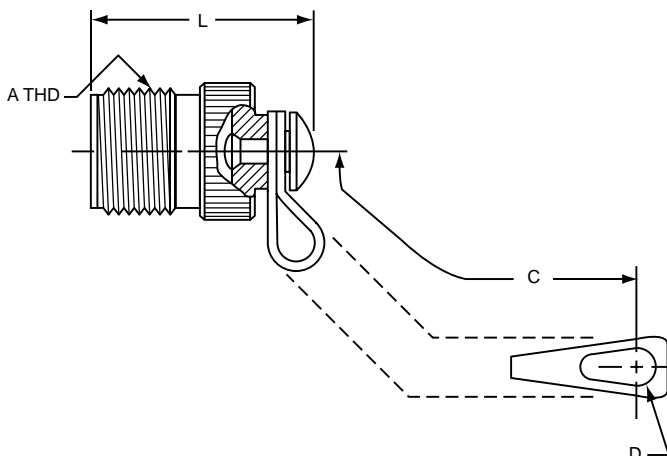
Assembly Number	A Thread Class 2A	B Dia. +.010 -0.000	C Approx.	L Max.
10-329393-10	.625-24UNEF	.641	3.5	1.312
10-329393-11	.625-24UNEF	.641	3.5	1.312
10-329393-12	.750-20UNEF	.766	3.5	1.500
10-329393-14	.875-20UNEF	.891	3.5	1.500
10-329393-16	1.000-20UNEF	1.016	3.5	1.500
10-329393-18	1.125-18UNEF	1.141	3.5	1.500
10-329393-20	1.250-18UNEF	1.266	4.0	1.500
10-329393-22	1.375-18UNEF	1.391	4.0	1.500
10-329393-24	1.500-18UNEF	1.641	4.5	1.500
10-329393-28	1.750-18UNS	1.891	4.5	1.500
10-329393-32	2.000-18UNS	2.078	5.0	1.500
10-329393-36	2.250-16UN	2.328	5.0	1.500
10-329393-40	2.500-16UN	2.641	5.0	1.500
10-329393-44	2.750-16UN	2.891	6.0	1.500

PLUG PROTECTION CAP 10-229125-XX*



Assembly Number	A Thread Class 2A	C Approx.	D Ref.	L Max.
10-229125-10	.625-24NEF	3.0	.140	1.233
10-229125-12	.750-20UNEF	3.5	.140	1.421
10-229125-14	.875-20UNEF	3.5	.140	1.421
10-229125-16	1.000-20UNEF	3.5	.140	1.421
10-229125-18	1.125-18NEF	3.5	.140	1.421
10-229125-20	1.250-18NEF	3.5	.193	1.421
10-229125-22	1.375-18NEF	3.5	.193	1.421
10-229125-24	1.500-18NEF	4.5	.193	1.421
10-229125-28	1.750-18NS	4.5	.193	1.421
10-229125-32	2.000-18NS	5.0	.193	1.421
10-229125-36	2.250-16UN	5.0	.193	1.421
10-229125-40	2.500-16UN	5.0	.193	1.421

PLUG PROTECTION CAP MS25042-XXDA*



MS Number	A Thread Class 2A	B Dia. +.010 -0.005	C Approx.	L Max.
MS25042-8DA	.500-28UNEF	.156	4.00	.969
MS25042-10DA	.625-24UNEF	.156	4.00	.969
MS25042-12DA	.750-20UNEF	.156	4.50	1.156
MS25042-14DA	.875-20UNEF	.156	4.50	1.156
MS25042-16DA	1.000-20UNEF	.156	4.50	1.156
MS25042-18DA	1.125-18UNEF	.156	4.50	1.156
MS25042-20DA	1.250-18UNEF	.187	5.00	1.156
MS25042-22DA	1.375-18UNEF	.187	5.00	1.156
MS25042-24DA	1.500-18UNEF	.187	5.50	1.156
MS25042-28DA	1.750-18UNS	.187	7.75	1.156
MS25042-32DA	2.000-18UNS	.218	7.75	1.156
MS25042-36DA	2.250-16UN	.218	7.75	1.156
MS25042-40DA	2.500-16UN	.218	7.75	1.156

* Protective caps are illustrated with sash chains and are available with beaded chains or without chains. Optional terminations are also available. Consult Amphenol Aerospace when ordering.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient
Matrix 1
26482
Matrix 2
83723 III
Matrix | Pyle
26500
Pyle

5015
Crmp Rear
Release
Matrix
22992
Class 1
Back-
Shells
Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class L

Back-Shells

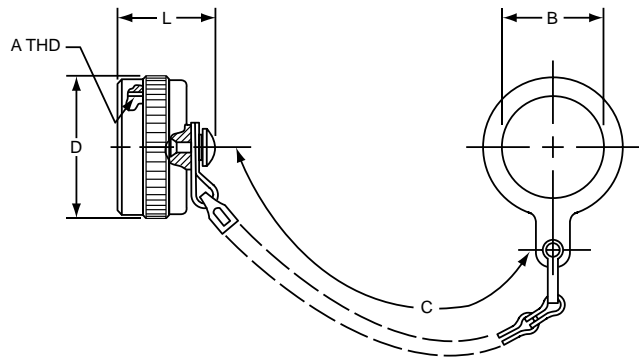
Options Others

Assembly Number	A Thread Class 2B	B Dia. Min.	C Approx.	D Dia. Max.	L Max.
10-329394-10	.625-24UNEF	.641	3.5	.875	.793
10-329394-12	.750-20UNEF	.766	3.5	1.000	.793
10-329394-14	.875-20UNEF	.891	3.5	1.125	.793
10-329394-16	1.000-20UNEF	1.016	3.5	1.250	.793
10-329394-18	1.125-18UNEF	1.141	3.5	1.375	1.024
10-329394-20	1.250-18UNEF	1.266	4.0	1.500	1.024
10-329394-22	1.375-18UNEF	1.391	4.0	1.625	1.024
10-329394-24	1.500-18UNEF	1.641	4.5	1.750	1.024
10-329394-28	1.750-18UNS	1.891	4.5	2.000	1.024
10-329394-32	2.000-18UNS	2.078	5.0	2.250	1.024
10-329394-36	2.250-16UN	2.328	5.0	2.500	1.024
10-329394-40	2.500-16UN	2.641	5.0	2.656	1.024
10-329394-44	2.750-16UN	2.891	6.0	2.938	1.024

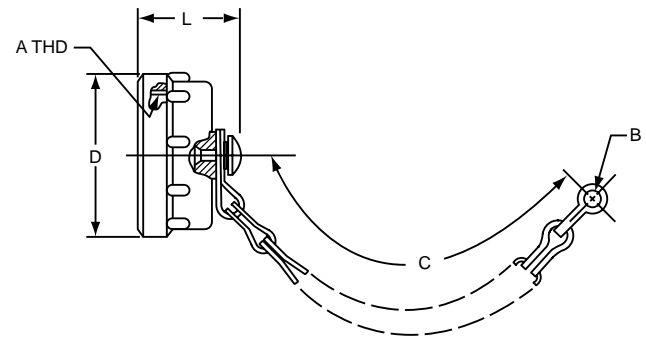
Assembly Number	A Thread Class 2B	B Ref.	C Approx.	D Dia. Max.	L Max.
10-422905-103	.625-24UNEF	.140	3.0	.875	.812
10-422905-123	.750-20UNEF	.140	3.5	1.000	.812
10-422905-143	.875-20UNEF	.140	3.5	1.125	.812
10-422905-163	1.000-20UNEF	.140	3.5	1.250	.812
10-422905-183	1.125-18UNEF	.193	3.5	1.375	1.031
10-422905-203	1.250-18UNEF	.193	4.0	1.500	1.031
10-422905-223	1.375-18UNEF	.193	4.0	1.625	1.031
10-422905-243	1.500-18UNEF	.193	4.5	1.750	1.031
10-422905-283	1.750-18UNS	.193	4.5	2.000	1.031
10-422905-323	2.000-18UNS	.193	5.0	2.250	1.031
10-422905-363	2.250-16UN	.193	5.0	2.500	1.031
10-422905-403	2.500-16UN	.193	5.0	2.656	1.031

MS Number	A Thread Class 2B	B +.010 - .005	C Approx.	D Dia. Max.	L Max.
MS25043-8DA	.500-28UNEF	.140	4.00	.688	.750
MS25043-10DA	.625-24UNEF	.140	4.00	.815	.750
MS25043-12DA	.750-20UNEF	.140	4.50	1.000	.750
MS25043-14DA	.875-20UNEF	.140	4.50	1.125	.750
MS25043-16DA	1.000-20UNEF	.140	4.50	1.188	.750
MS25043-18DA	1.125-18UNEF	.140	4.50	1.344	.750
MS25043-20DA	1.250-18UNEF	.140	5.00	1.469	.750
MS25043-22DA	1.375-18UNEF	.140	5.00	1.594	.750
MS25043-24DA	1.500-18UNEF	.171	5.50	1.719	.750
MS25043-28DA	1.750-18UNS	.171	7.75	1.969	.812
MS25043-32DA	2.000-18UNS	.187	7.75	2.219	.812
MS25043-36DA	2.250-16UN	.187	7.75	2.469	.812
MS25043-40DA	2.500-16UN	.187	7.75	2.719	.812

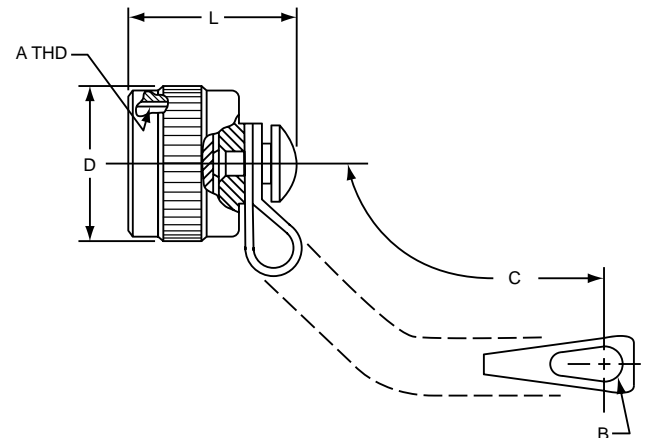
RECEPTACLE PROTECTION CAP 10-329394-XX*



RECEPTACLE PROTECTION CAP 10-422905-XXX*

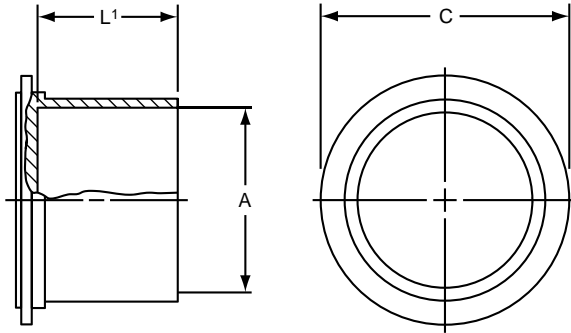


RECEPTACLE PROTECTION CAP MS25043-XXDA*



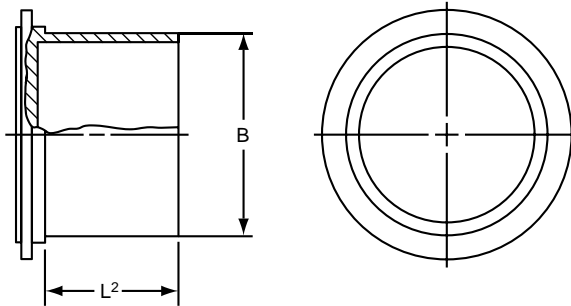
* Protective caps are illustrated with sash chains and are available with beaded chains or without chains. Optional terminations are also available. Consult Amphenol Aerospace when ordering.

10-70500 RECEPTACLE DUST CAP for external threads



MS Shell Size	Order Number	A Dia. Nominal Thread	C Dia. ±.031	L ¹ ±.062
8S	10-70500-8	.500	.750	.500
10S	10-70500-10	.625	.875	.500
10SL	10-70500-10	.625	.875	.500
12S	10-70500-12	.750	1.000	.500
12	10-70500-12	.750	1.000	.500
14S	10-70500-14	.875	1.125	.500
14	10-70500-14	.875	1.125	.500
16S	10-70500-16	1.000	1.250	.500
16	10-70500-16	1.000	1.250	.500
18	10-70500-18	1.125	1.375	.562
20	10-70500-20	1.250	1.500	.562
22	10-70500-22	1.375	1.625	.562
24	10-70500-24	1.500	1.750	.562
28	10-70500-28	1.750	1.938	.562
32	10-70500-32	2.000	2.250	.562
36	10-70500-36	2.250	2.500	.625
40	10-70500-40	2.500	2.750	.625

10-70506 PLUG DUST CAP for internal threads



MS Shell Size	Order Number	B Dia. Min.	L ² ±.125
8S	10-70506-8S	.469	.625
10S	10-70506-10S	.587	.625
10SL	10-70506-10S	.587	.625
12S	10-70506-12	.704	.625
12	10-70506-12	.704	.625
14S	10-70506-14	.828	.625
14	10-70506-14	.828	.625
16S	10-70506-16	.953	.625
16	10-70506-16	.953	.625
18	10-70506-18	1.072	.625
20	10-70506-20	1.197	.625
22	10-70506-22	1.322	.625
24	10-70506-24	1.447	.625
28	10-70506-28	1.697	.625
32	10-70506-32	1.947	.625
36	10-70506-36	2.190	.625
40	10-70506-40	2.440	.625

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED**
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others



MS/Standard 3100 Series, MIL-5015 Type Connectors

MIL-DTL-5015 and MIL-5015 Type Standard Circular Connectors with solder or crimp (non-rear release) contacts

Amphenol has long been the accepted leader in providing MS Standard MIL-5015 type connectors. These connectors represent well-proven electrical capability at an economical cost for most equipment where durability is important.

The MS/Standard family of connectors (3100 Series) is a very broad range of product with the following features:

- s Medium to heavy weight cylindrical with resilient inserts
- s Environmental resistant
- s Threaded couplings, single key/keyway shell polarization
- s Operating voltage to 3000 VAC (RMS) at sea level
- s 5 shell styles, 19 shell sizes, 280 contact arrangements
- s Solder or crimp contacts (non-rear-release type), sizes 16–0 accepting 22–0 AWG
- s Coaxial or thermocouple contact options
- s Alternate insert positioning
- s Hermetic configurations available
- s Zinc alloy plating (cadmium-free) available

The 3100 Series has five classes of connectors to meet different requirements. Within these connector styles, MIL-C-5015 has been replaced as follows: Environmental classes F and R are updated to and produced in strict accordance to MIL-DTL-5015. Classes A, C and E are still produced, but are no longer listed on the qualified products listing (QPL). Class designations and brief descriptions are as follows:

A – Solid Shell – for general, non-environmental applications.

C – Pressurized – for use on pressurized bulkheads or pressure barriers; limits air leakage regardless of type and class of plug mated with them.

E/F – Environmental Resisting with Strain Relief – designed for applications where the connector will be exposed to moisture, vibration, and rapid changes in pressure and temperature.

R – Lightweight Environmental Resisting – shorter in length, lighter in weight than the E & F classes, the MS-R offers a high degree of reliability under adverse conditions: recommended for new design applications.

Ask for Amphenol catalog 12-020 which gives detailed information on this family of connectors or visit www.amphenol-industrial.com

MIL-5015 Modifications

In order to supplement standard MS shell styles and provide a greater variety of styles for the electrical connector user, there are several MS and MS Modified cylindrical connectors offered by Amphenol. These types include flange mount plugs, thru bulkhead receptacles, jam nut receptacles, connectors for potting and connectors designed specifically to terminate jacketed cable. Ask for Amphenol catalog 12-021 for detailed information or visit www.amphenol-industrial.com.

97 Series, MIL-5015 Type Connectors

The low cost, general duty connector used extensively in the machine tool industry, welding industry and numerous other industrial applications, is the Amphenol® 97 Series. Offered in non-environmental styles, these connectors have hard dielectric inserts and threaded coupling. They are Underwriters Laboratories Recognized and Canadian Standards Association Certified.

Recent addition to this family is the 97E environmental styles, still an economical choice. The 97E can be used in a variety of industrial applications where environmental sealing is required, such as automotive and robotics.

Ask for Amphenol catalog 12-022 for detailed information or visit www.amphenol-industrial.com.



97 Series, MIL-5015 Type Connectors

Amphenol MIL-DTL-22992, Class 'L'



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Amphenol
Aerospace

38999

Product Features, Benefits and Specifications



- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- RECOMMENDED
- US

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- s 17, (S), 4,
- s 17,
- s 17,

- EMI Filter Transient
- s Double stub coupling threads for faster connections; no cross
- connections

- 26482 Matrix 2

- 83723 III Matrix (Pyle)

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class L

- Back-Shells

- Options Others

Amphenol Heavy Duty Class L connectors have been exposed to the following environmental conditions, without compromise of mechanical integrity or degradation of electrical performance.

Condition	Configuration	Description	Reference
Temperature	5WD	MIL-STD-1344, method 1003, test condition A	-55°C to +125°C
Moisture Resistance	Mated	MIL-STD-202, method 106	ABM
Vibration	Mated	at +35°C	MIL-STD-1344, method 1001
Vibration	Mated	MIL-STD-1344, method 2005	NEAR/AE each in three axes on mounting panel
High Impact	Mated	Maximum rated DC current for four hours at +25°C in still air	MIL-STD-202, method 207
Fluid Immersion	5WD	lubricating oil	), 4,
Water Immersion	ABMAD	4 hours immersion at 1 atmosphere pressure differential), 4,

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III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient
26482
Matrix 2
83723
III
Matrix | Pyle
26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class L

Back-Shells

Options
Others

Wall Mount Receptacle



Cable Connecting Receptacle



- s Connector shell style and contact type - Wall mount and
- s Shell size - The direct relationship of shell size to current

Shell Size	Current Rating (Amperes)	Contact Size
28	40	6
32	60	4
44	100	
52	200	

- s Keyway Position
- s Insert rotation
- s Greatest Capacity - Current ranges 40 to 200 amps,
- s Safety - Complete protection of personnel and equipment if
- s Foolproof Mating
- s Standardization -), 4,

- s Serviceable Contact
- s Arc Quenching Design
- s Programmed Coupling Sequence - Grounding and neutral
- s Waterproof Design - A unique combination of grommets
- s Rugged Construction - Machined from high strength
- s Accessories

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

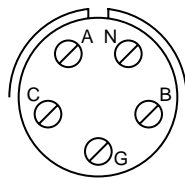
5015 Crimp Rear Release Matrix

22992 Class L

Back-Shells

Options Others

Shell Size 28, 40 amp rating



28-12, 28-13



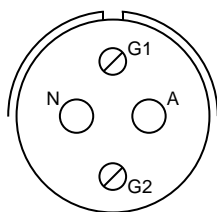
Cable:

28-12	)0
28-13	(2), 4,

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	6	-317	
N, G	6N	-318	

Shell Size 32, 60 amp rating



32-04, 32-05



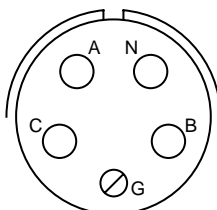
Cable:

32-04	)0
32-05	(2), 4,

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A	4	-320	-331
N	4N	-321	-331
G1, G2	6N	-318	

Shell Size 32, 60 amp rating



32-12, 32-13



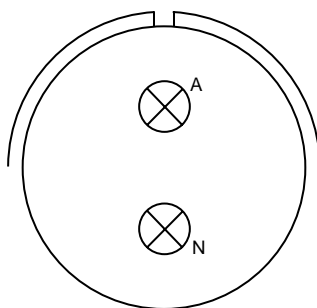
Cable:

32-12	)0
32-13	(2), 4,

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C	4	-320	-331
N	4N	-321	-331
G	6N	-318	

Shell Size 44, 100 amp rating



44-02, 44-03



Cable:

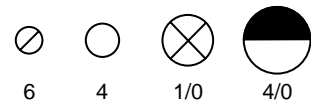
44-02	)0
44-03	(, 4,

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A		-323	-333
N	.	-324	-333

)0

Contact Legend



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

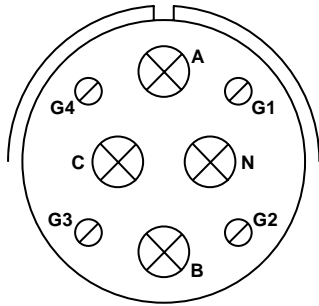
- 5015 Crimp Rear Release Matrix

- 22992 Class L

- Back-Shell's

- Options Others

Shell Size 44, 100 amp rating



44-12, 44-13



Cable:

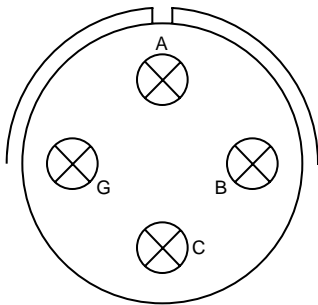
44-12	)0	
44-13	(	2 (B), 4,

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C		-323	-333
N	.	-324	-333
G1, G2, G3, G4	6G		-330

Shell Size 44, 100 amp rating

44-50



44-50, 44-51, 44-52, 44-56



44-50	M3	-3	
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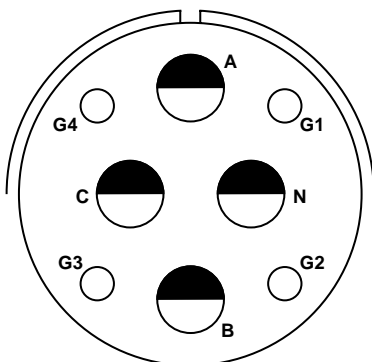
Cable:

44-51	M3	-3	
44-52	M3		
44-56	M3		

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C		-323	-333
G	.	-324	-333

Shell Size 52, 200 amp rating



52-12, 52-13



Cable:

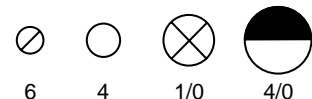
52-12	)0	
52-13	(	2 per MIL-DTL-3432

Contacts:

Position	Size	Pin M39029/48	Socket M39029/49
A, B, C		-327	-335
N	.	-328	-335
G1, G2, G3, G4	4G	-322	-332

)0

Contact Legend

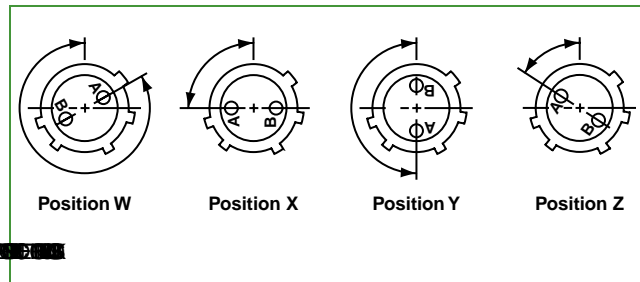


Alternate Insert Rotations

the use of more than one connector of the same size and

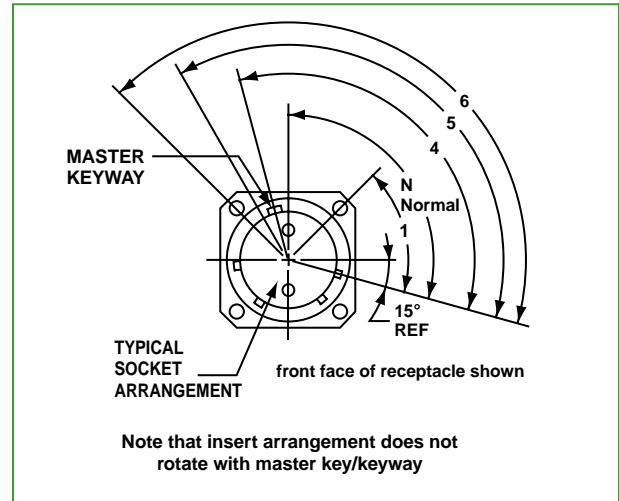
same number of degrees in respect to the normal shell

78



Class L Insert Rotations

Insert Arrangements	Keying Position (degrees from normal position)				
	DC or 60 Hz Normal	400 Hz			
		W	X	Y	Z
28-12	0	-	-	180	-
28-13	0	-	-	180	-
32-04	0	-	-	-	-
32-05	0	-	-	-	-
32-12	0	-	-	180	-
32-13	0	-	-	180	-
44-12	0	-	-	-	60
44-13	0	-	-	-	60
44-50	0	-	-	-	-
44-51	0	-	-	-	-
44-52	0	-	-	-	-
44-56	0	-	-	-	-
52-12	0	300	-	-	-
52-13	0	300	-	-	-



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III
HD
Dualok
II
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class L

Back-Shells

Options
Others



Easy Steps to build a part number... Class L Series

1.	2.	3.	4.	5.	6.	7.
MS Number	Shell Finish	Shell Size	Master Key/Keyway Position	Insert Arrangement	Contact	Alternate Insert Rotation
MS90555	C	32	4	12	S	Y
Commercial Number	Shell Finish	Shell Size	Master Key/Keyway Position	Insert Arrangement	Contact	Alternate Insert Rotation
CL90555*	C	32	4	12	S	Y

Step 1. Select a MS Number

	Designates
MS90555	Wall Mount Receptacle (Power Source)
MS90556	Straight Plug
MS90557	70 AMP Equipment End
MS90558	70 AMP Equipment End

Step 1. Select a Commercial Number

	Designates
CL90555	Wall Mount Receptacle (Power Source)
CL90556	Straight Plug
CL90557	70 AMP Equipment End
CL90558	70 AMP Equipment End

Step 2. Select a Shell Finish

	Designates
C	Commercial
N	Non-grounding

Grounding Assemblies: Finish C

Shell Size	Current Rating Amps	Shell Master Key/Keyway Position						
		60Hz & 400 Hz						
		1 Phase			3 Phase			
		2 Wire		3 Wire	3 Wire		4 Wire	
		120 VAC	240 VAC	120/240 VAC	450/480 VAC	120/208 VAC	240/416 VAC	277/480 VAC
28	40				-			
32	60				-			
44	100		-					
52	200	-	-		-			

Non-grounding Assemblies: Finish N

Shell Size	Current Rating Amps	Shell Master Key/Keyway Position
		DC
		2 Wire
		28 VDC
28	40	.
32	60	.
44	100	.
52	200	.

Step 3. Select a Shell Size - (related directly to current carrying capability)

	Designates Current Carrying Capability
28	40 amperes
32	60 amperes
44	100 amperes
52	200 amperes

Step 4. Select an Alternate Master Key/Keyway Position if needed

12 AMP
15 AMP
20 AMP

Step 5. Select an Insert Arrangement

3-12 AMP
3-15 AMP
3-20 AMP

Step 6. Select a Contact Type

	Designates
P	Pin Contacts
S	Socket Contacts

3, AND-3, ARE SUPPLIED WITH SOCKET CONTACTS
P, AND-3, ARE SUPPLIED WITH PIN CONTACTS

Step 7. Select an Alternate Insert Rotation if needed

12 AMP
15 AMP
20 AMP

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

- 26500 Pyle
- 5015 Crimp Rear Release Matrix

22992 Class L

- Back-Shell's
- Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

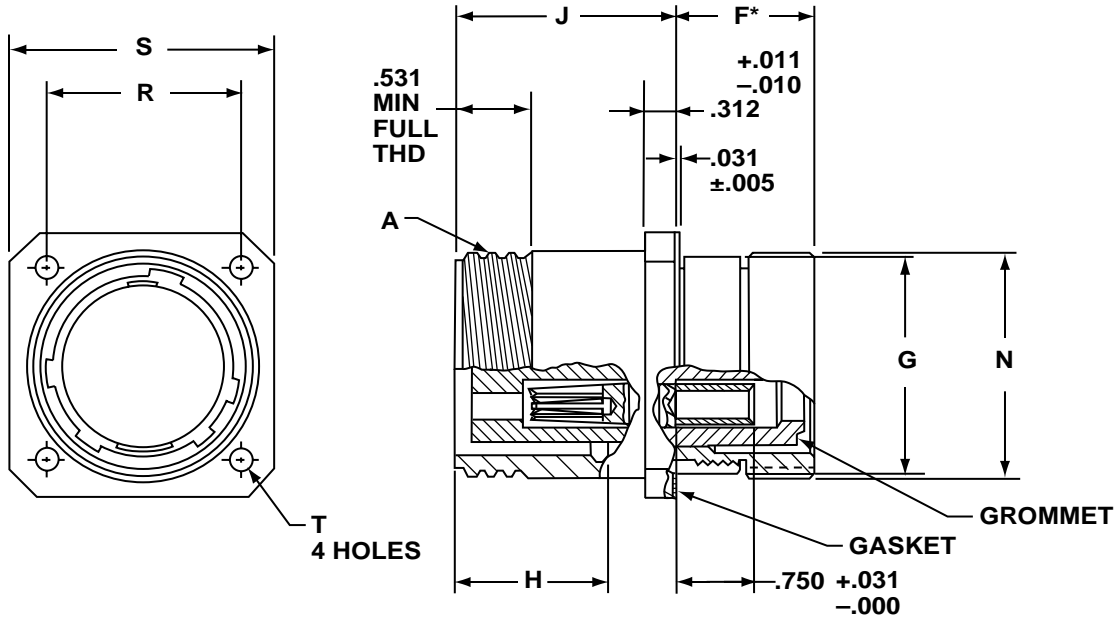
- 22992
- Class L

- Back-Shells

- Options
- Others

PART # To complete, see how to order page 467.

Part Number	Shell Finish	Shell Size	ASSEMBLY Position	Insert Arrangement	Contact $\frac{1}{2}$	Alternate Insert Rotation
MS90555	C or N	XX	X	XX	P or S	X
CL90555**	C or N	XX	X	XX	P or S	X



Shell Size	A Thread Class 2A .1428P-.2857L Double Stub	F* ± 0.031	G Dia. $+0.006$ to -0.010	H ± 0.005	J $+0.016$ to -0.000	N Dia. $+0.011$ to -0.020	R (BSC)	S $+0.021$ to -0.020	T Dia. ± 0.005
28									
32									
44									
52									

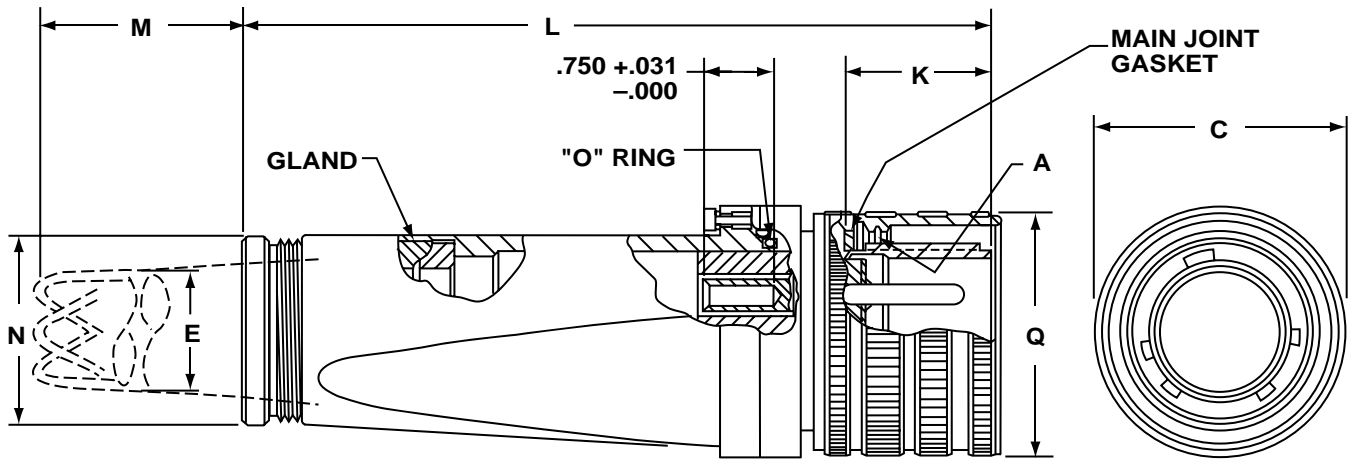
MS
MS
MS
MS

MS (CL) 90556, MIL-DTL-22992, Class L Straight Plug

PART

To complete, see how to order page 467.

Part Number	Shell Finish	Shell Size	Position	Insert Arrangement	Contact	Alternate Insert Rotation
MS90556	C or N	XX	X	XX	P or S	X
CL90556*	C or N	XX	X	XX	P or S	X



Shell Size and Arrangement	A Thread Class 2A .1428P-.2857L Double Stub	C Dia. Max.	E Cable Range	K ±.005	L Max. Free Length	M Approx. Free Length	N Dia. +.011 - .020	Q Dia. Max.
28-12								
28-13								
32-04								
32-05, 32-12								
32-13								
44-02								
44-03								
44-12								
44-13								
44-51								
44-52								
44-56								
52-12								
52-13								

MS
MS
MS 3
MS

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crmp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

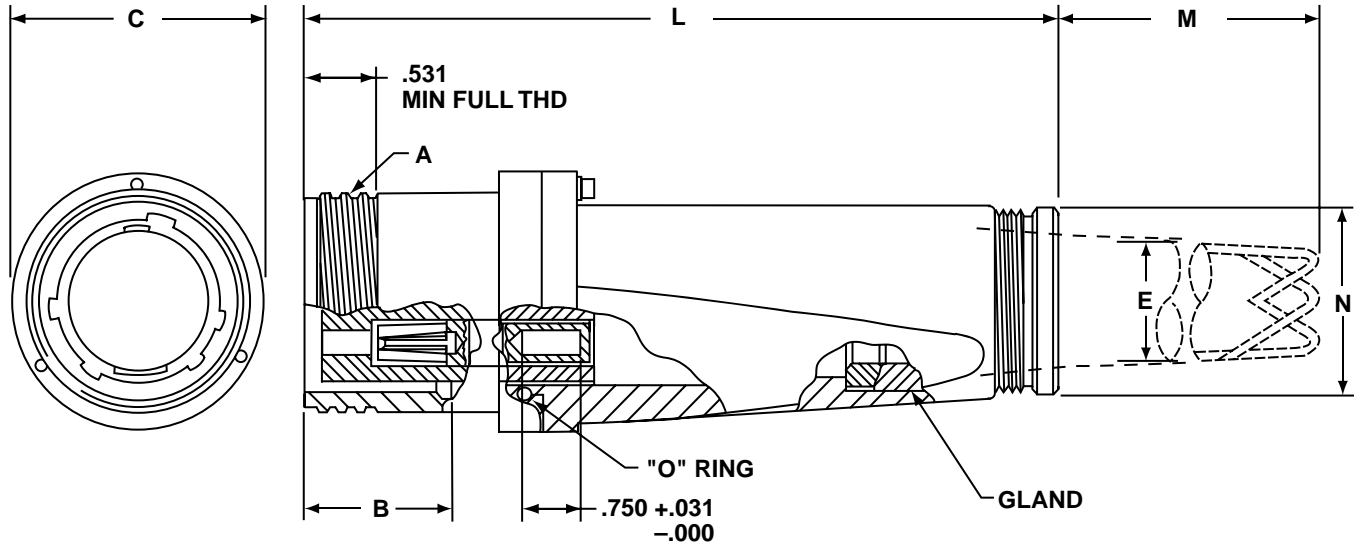
- 22992
- Class L

- Back-Shells

- Options
- Others

PART # To complete, see how to order page 467.

Part Number	Shell Finish	Shell Size	ASSEMBLY Position	Insert Arrangement	Contact A	Alternate Insert Rotation
MS90557	C or N	XX	X	XX	P or S	X
CL90557*	C or N	XX	X	XX	P or S	X



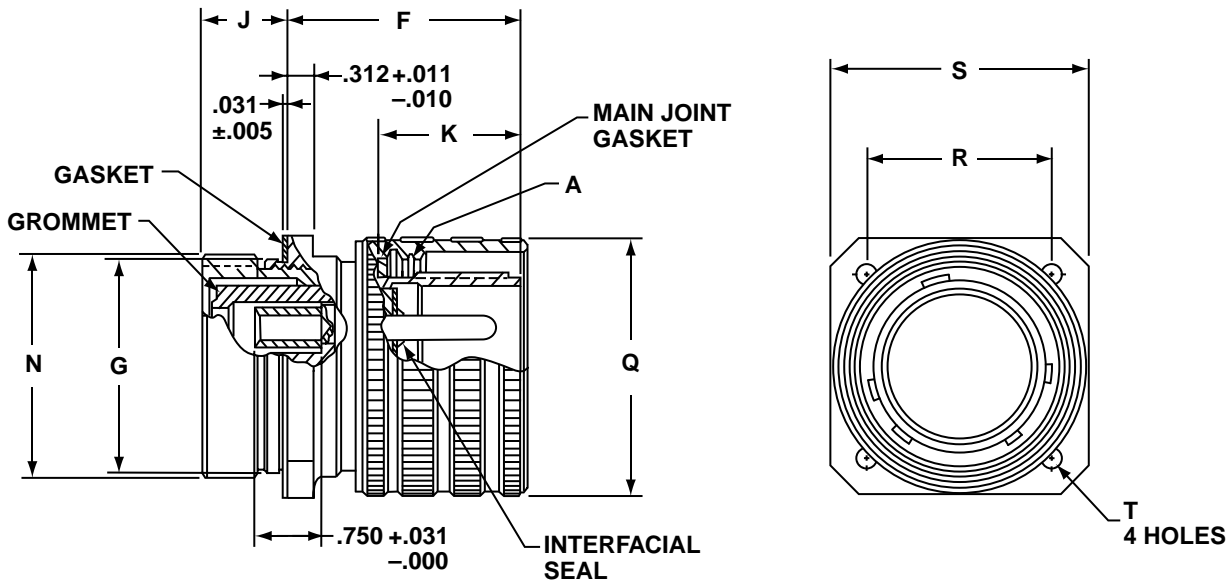
Shell Size and Arrangement	A Thread Class 2A .1428P-.2857L Double Stub	B ±.005	C Dia. Max.	E Cable Range	L Max. Free Length	M Approx. Free Length	N Dia. +.011 - .020
28-12							
28-13							
32-04							
32-05, 32-12							
32-13							
44-02							
44-03							
44-12							
44-13							
44-51							
52-12							
52-13							

MS 90557
CL 90557
MS 90557
CL 90557

PART #

To complete, see how to order page 467.

Part Number	Shell Finish	Shell Size	ASSEMBLY Position	Insert Arrangement	Contact 2E	Alternate Insert Rotation
MS90558	C or N	XX	X	XX	P or S	X
CL90558**	C or N	XX	X	XX	P or S	X



Shell Size	A Thread Class 2A .1428P-.2857L Double Stub	F* +.016 -.000	G Dia. +.006 -.010	J ±.031	K ±.005	N Dia. +.011 -.020	Q Dia. Max.	R (BSC)	S +.021 -.020	T Dia. ±.005
28										
32										
44										
52										

MS
3
MS
MS

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class L

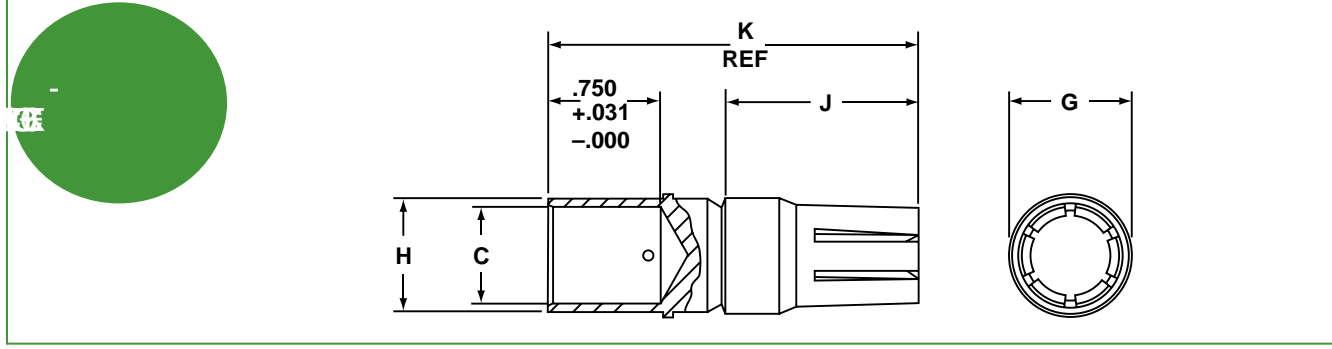
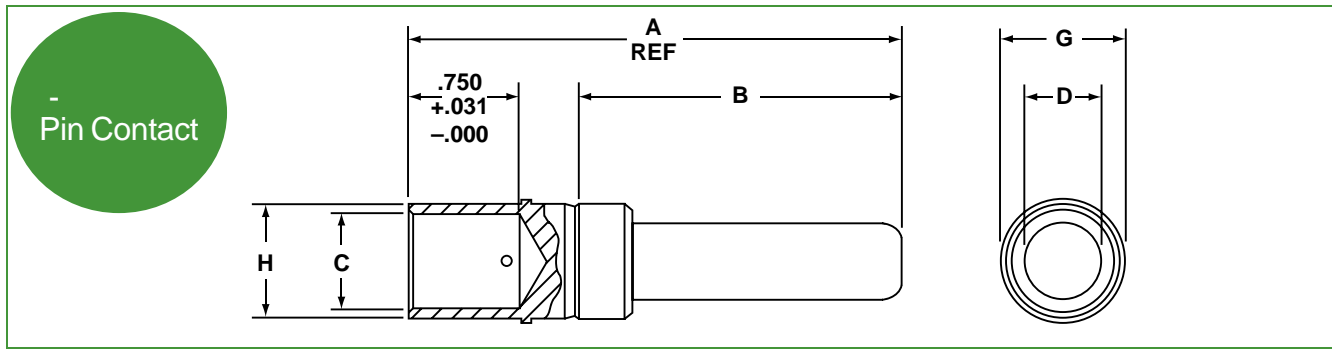
Back-Shell

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

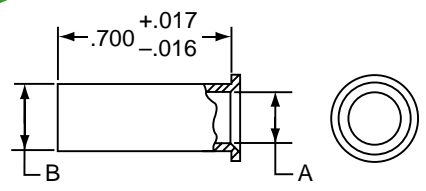
- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723 III
- Matrix | Pyle
- 26500
- Pyle
- 5015
- Crimp Rear Release Matrix
- 22992
- Class L

- Back-Shells
- Options
- Others



Socket MS Part Number	Pin MS Part Number	Contact Size	Wire Well Size	A Ref.	B ±.005	C Dia.	D Dia. ±.001	G Dia.	H Dia.	J ±.005	K Ref.
-	-	.				n			n		
-	-	.				n			n	-	-
-	-	1	1			n			n		
-	-	.	1			n			n	-	-
-	-	4	4								
-	-	4N	4							-	-
-	-	6	6								
-	-	6N	6							-	-
-	-	4G	4								
-	-	6G	6								

MS3348 Contact Bushing



MS Part Number	Contact Wire Barrel Size (Ref)	Wire Size (Ref)	A Dia. +.010 - .003	B Dia. +.002 - .003
MS3348-1-2L	1	2		
MS3348-4-5L	4	5		
MS3348-4-6L	4	6		
MS3348-6-8L	6	8		
-3	6			
MS3348-1-6L	1	6		
MS3348-4-8L	4	8		
MS3348-6-10L	6	10		
-3				

DATE: 11/11/11

MS

- 3
Cable Strain Relief

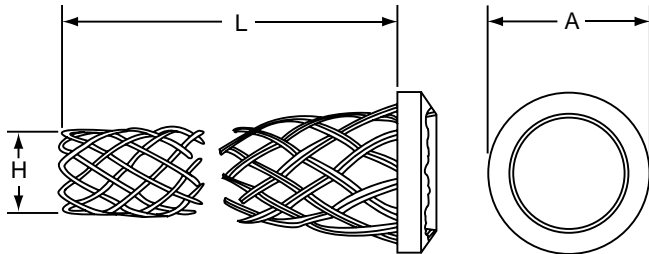


FIGURE 3

MS Part Number	Arrangement Number	A Dia. +.000 -0.010	H Dia. Cable Range		L Approx.
			Max.	Min.	
- 3	28-13, 32-12				
- 3	28-02, -28-04				
- 3	28-12				
- 3	32-13				
- 3	44-12				
- 3	44-13				
- 3	52-12				
- 3	52-13				
- 3	44-51				
- 3					
- 3					
- 3	44-56				

MS23747
Cable Sealing Gland

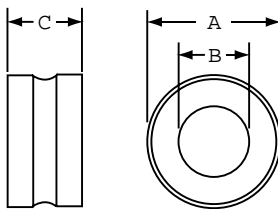


FIGURE 3

MS Part Number	Arrangement Number	A Dia. +.000 -0.020	B Dia. +.020 -0.000	C ±.010	Min Cable Dia. Ref.
MS23747-2	28-13, 32-05, 32-12				
MS23747-12	28-12				
MS23747-13	32-13				
MS23747-14	44-03				
MS23747-15	44-12				
MS23747-16	44-13				
MS23747-18	52-12				
- 3	52-13				
MS23747-20	44-51				
MS23747-21					
MS23747-22	44-56				

Protection Caps



MS90563 Protection Caps used with MS90555 Wall Mount Receptacle, MS90557 Cable Connecting Receptacle

MS Part Number	Use with Shell Size	A Thread Class 2B .1428P-.2857L Double Stub	B Dia. Ref.		C Approx.
			For MS90555	For MS90557	
-3	28				
-3	32				
-3	32		-		
-3	44				
-3	52				

MS90564 Protection Caps used with MS90556 Straight Plug, MS90558 Wall Mount Plug

MS Part Number	Use with Shell Size	A Thread Class 2B .1428P-.2857L Double Stub	B Dia. Ref.		C Approx.	J Max.
			For MS90556	For MS90558		
-3	28					
-3	32		-			
-3	32					
-3	44					
-3	52					

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell's

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Cable Preparation

-3 AD3

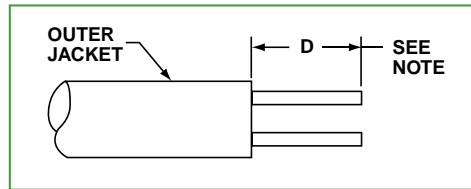
Standardized Generator Wiring and Connections

Generator Terminal Marking	Current	Contact Designation	Conductor Circuit	Wire Color
03 n . G	28Vdc 28Vdc	A N	WB EA	AK White
L ₁	AC	A	Phase A	AK Red
L ₂	AC	B	Phase B	AK REDA
L ₃	AC	C	Phase C	AK REDA
L ₀	AC	N	Neutral	White
OPD	AC	G	AK	REDA AK

Step 1

Step 2

Connector Size	D Inches Approx.
28	
32	
44	
52	



46
Dimension D must therefore be increased to permit

Step 3

Step 4

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class L

- Back-Shells

- Options
- Others

38999

III
HD
Duallok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

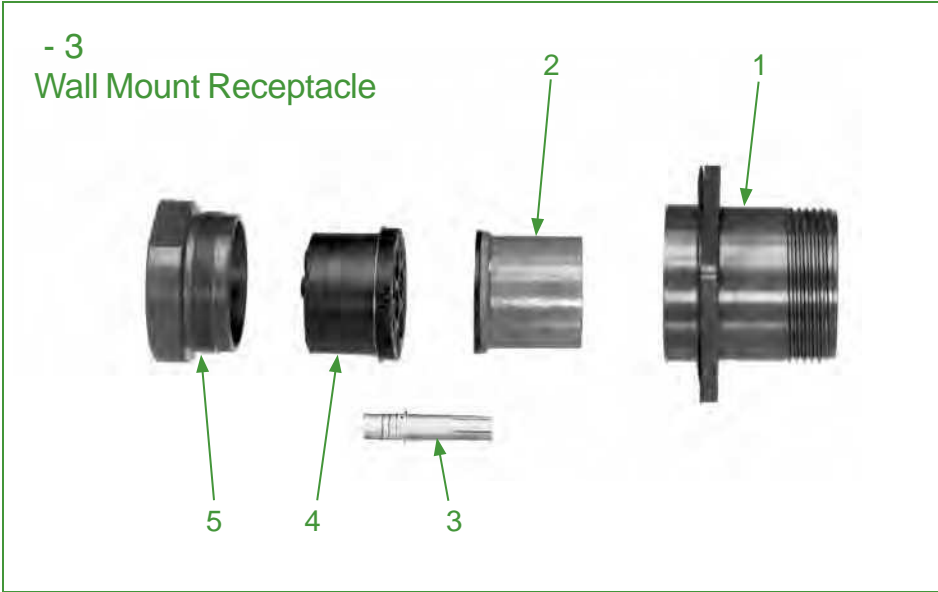
26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

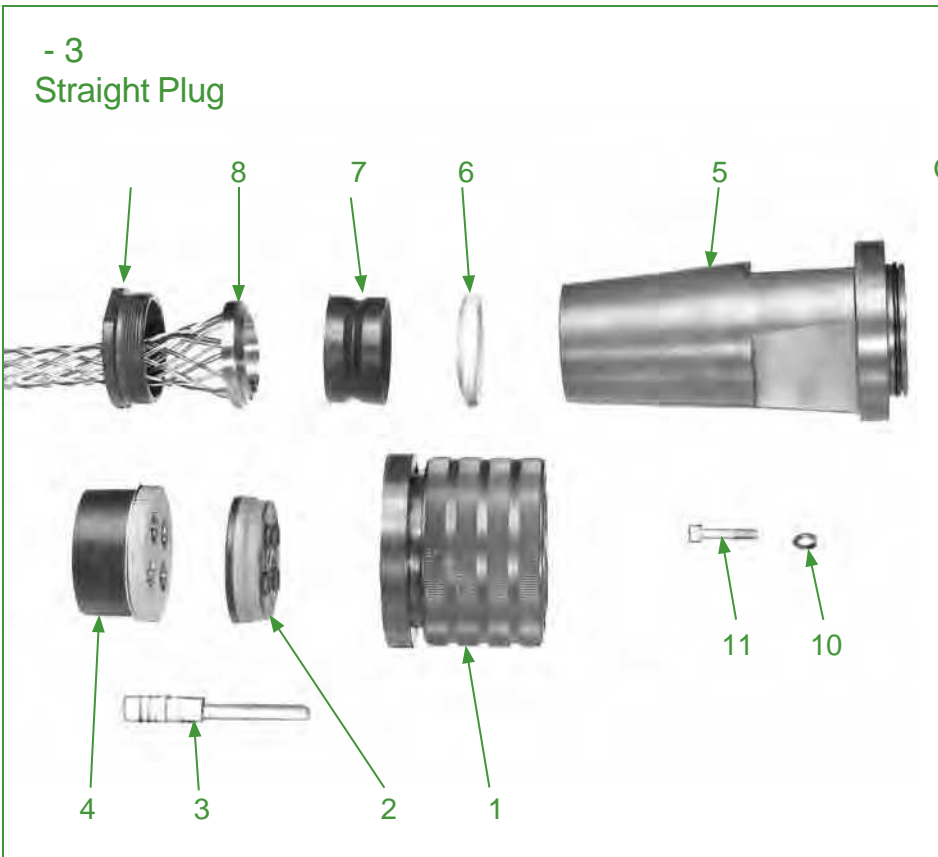
Back-Shell

Options
Others



Wall Mount Receptacle

- Shell
- Nut, Retaining



- Contact, Pin
- Gland Washer
- Gland
- Cable Grip
- Gland Nut

4

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

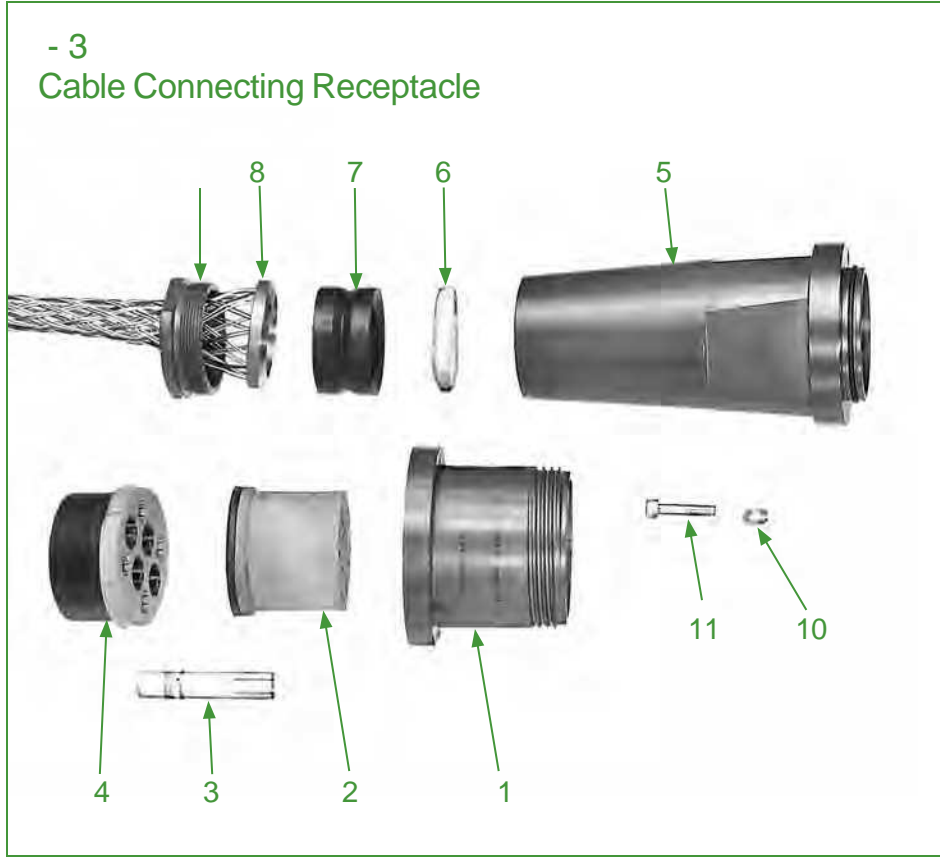
- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class L

- Back-Shells

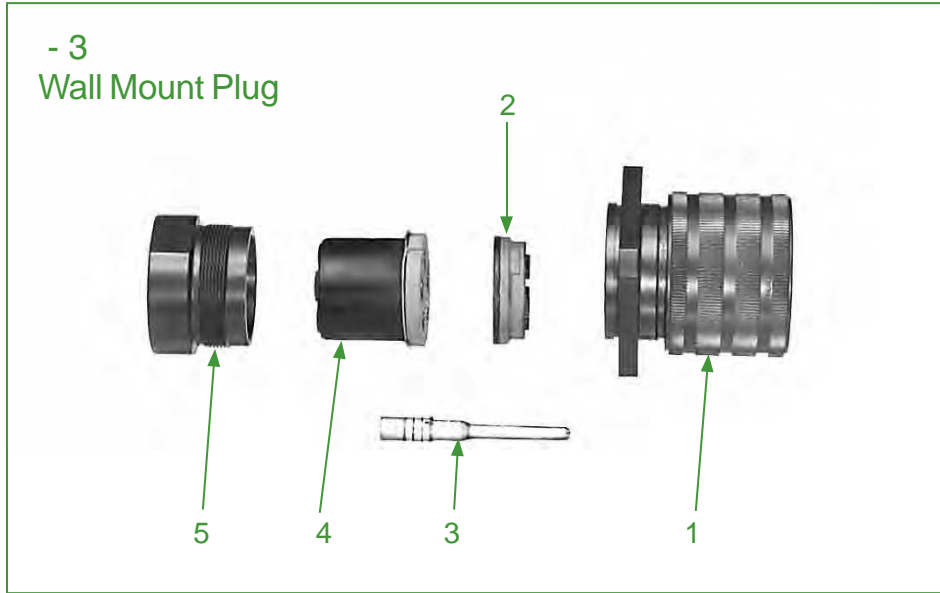
- Options
- Others



Cable Connecting Receptacle

- Shell
- Gland Washer
- Gland
- Cable Grip
- Gland Nut

4



- Contact, Pin
- Nut, Retaining

Contact Installation

Step 1) [REDACTED]

Step 2) Select correct crimping tool, locator and die combination from the table for contacts

Contact Part Number	Size	Type	Crimping Tool*	Locator*	Die*	Removal Tool
-		P	Pico Model 400B or 400B-1			-3
-		S				
-		P	Pico Model 400B or 400B-1			-3
-		S				
-	4	P	Pico Model 400B or 400B-1		414DA-4N	-3
-	4N	P				
-	4G	P				
-	4G	S				
-	6	P	Pico Model 400B or 400B-1		414DA-6N	-3
-	6	S				
-	6N	P				
-	6G	P				
-	6G	S				

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Step 3)

large slot in shell and push insert in until it

Step 2) [REDACTED]

Step 3) [REDACTED]

contacts into insert holes until spacer or grommet

Step 4) [REDACTED]

grease on inside surfaces of gland and on cable

Step 5) Tighten retaining nut or gland nut on shell or

[REDACTED]

Step 1)

Step 2) [REDACTED]

Step 3) [REDACTED]

-3

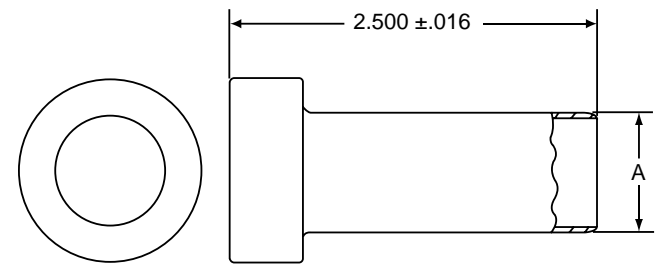


FIG. 3 [REDACTED]

MS Part Number	Contact Size	A Dia. +.000 - .002
-		
-		
-	2	
-	4	
-	6	

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class L

Back-Shell's

Options Others

Backshells from Amphenol PCD



TABLE OF CONTENTS

BACKSHELLS FROM AMPHENOL PCD

- s Quick Reference of Products 479-482
- s Angles/Profiles & Coupling Styles 483
- s How to Select a Suitable Backshell 484
- s Tables - By Connector Groups 485
- s Materials & Finishes, Assembly Torque Values, Style-2 Configuration . . 486



Backshells for Connector Family "L"

- s MIL-DTL-38999 (Series III), MIL-DTL-38999 (Series IV) 487-507

Backshells for Connector Family "K"

- s MIL-DTL-38999 (Series II), MIL-DTL-38999 (Series I) 508-527



Backshells for Connector Family "J"

- s MIL-DTL-26482 (Matrix, Series 2), MIL-DTL-5015 (Matrix, MS345X),
MIL-DTL-83723 (Matrix & Pyle Series III) 528-553



Amphenol PCD
 72 Cherry Drive, Beverly, MA 01915
 Phone: 978-624-3400
www.amphenolpcd.com

Amphenol



Backshells

From Amphenol PCD

Amphenol holds the leadership position for providing interconnect solutions that meet almost all Military, Aerospace and Industrial standards in the U.S., Europe and Asia.

With design and manufacturing facilities and sales offices spread across the globe, Amphenol offers a vast product portfolio of connectors, cable assemblies and system integration for almost all applications across various industries.

BACKSHELLS

Within Amphenol's wide range of interconnect products is a full range of backshell hardware. Customers can take advantage of Amphenol's global synergy for connectors, backshells and cable harnessing with one place for all their interconnect needs.

Plus, coming to Amphenol for a custom design of a backshell, means that customers benefit from the vast amount of experience this global company has in designing interconnect solutions.

This section covers the backshells that are provided through Amphenol PCD:

- WHO INCLUDES PARTS
- WHO INCLUDES PARTS
- WHO INCLUDES PARTS

MIL-DTL-5015 (Matrix MS345X), MIL-DTL-83723 (Matrix & Pyle Series III)



Amphenol . . We Connect the World Together



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Amphenol Backshells are available in several different types, designed for optimum performance in the application or environment it will be used in. For example; in ground and naval applications the robustness and environmental sealing may be more important, where as weight may be the prime consideration for space and Aerospace application. The following overview explains the various families of Amphenol Backshells with its applications.

Some families of backshells shown here can be used without any additional protection. Some other types of backshells shown are generally used with heat shrink boots or similar protection/strain relief mechanism depending upon the specific requirements. Also, there are some clamps & nuts for the applications where varying degrees of strain reliefs and cable holding will suffice and weight saving is of higher importance.

Non-Environmental Backshell

relief when the environmental protection of the cable termination area is not a concern. Amphenol offers cost-effective solutions by eliminating extra sealing parts.

room application where heavy cabling should be supported with adequate strain relief.



Environmental Backshell

sure the cable sealing and environment protection by means of high quality sealing grommet and grommet follower. The strain relief nut is tightened squeezing the grommet onto the cable jacket during assembly.

perfectly jacketed cable, and suitable for harsh environment applications.



Non-Environmental EMI/RFI Backshell

other features of the Non-Environmental type. Available in straight, 90 degree bent and 45 degree bent varieties.



Environmental EMI/RFI Backshell

ronment situations where electromagnet and radio frequency noises are to be isolated.



HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

Shrink Boot Adapter

with heat shrink boots. It has a groove where the boot lip can be held which provides good grip apart from sufficient space inside for the cable looping.

environmental protection and strain relief to cable termination. repairability.



Crimp Ring Adapter

will require provision for terminating the screens too. It is achieved in this type of backshell through a ring, which can be crimped to the backshell body holding the screens in between.



Band Lock Adapter

band will do the job in this backshell. Tempered bands are tightened over the shields, which is pulled over the banding area, using a special assembly tool.

method as chosen by the designer could be used. resistance.



Pre-Shield Adapter

overlaps with the cable braid.

braid.



SQ Adapter

adapter. The cost-effective braid is pulled over the conical shape to the rear end of the adapter and then tied. The end nut is tightened to ensure adequate grip for the shielding.

Note: The SQ adapter style is not covered in this catalog section; for more information go to www.backshellworld.com



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

Quick Clamp



Strain Relief Clamps

mental protection is not a concern, and weight savings is a major consideration.
strain relief at the termination area.



Grommet Nut

nectors when expensive and heavy backshells are not used. Such holding force is essential to hold the contacts and grommet in place when terminated with wire bundles.



Lamp Thread Adapter

shield termination.
and field maintenance.
nut option enables the use of heat shrink boot and the clamp option will facilitate the strain relief clamping without heat shrink boot after the shield/cable termination.



Note: The lamp thread adapter style is not covered in this catalog section; for more information go to www.backshellworld.com

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

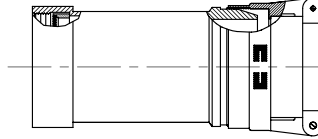
Backshells Angle/Profiles and Coupling Styles

BACKSHELL ANGLE/PROFILES

Amphenol Backshells are available in three different angular profiles: straight, 90 degree and 45 degree. These profiles will meet most of the cable routing required in the interconnect market. We can also make additional profiles if required. Please go to the web link <http://www.backshellworld.com/customdesign.asp> to contact Amphenol about your specific backshell needs.

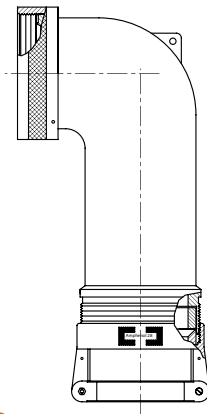
Straight Backshells

Straight Backshells are available in different length and cable entry diameter for most applications. Different cable and braid terminating systems are also available as shown in the respective product sections.



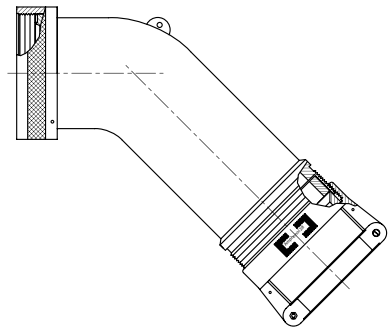
90° Angled Backshells

Many applications require the cable to be bent and routed rather than straight routed. Amphenol offers shell families for space saving and convenience.



45° Angled Backshells

Amphenol offers further design flexibility with a backshell that allows the cable to be bent at a 45-degree angle of the assembly.



BACKSHELL COUPLING STYLES

Various coupling styles are available for the coupling between the backshell and the connector. Popular styles are shown in the respective backshell sections, and custom profiles can be designed. Please go to the web link <http://www.backshellworld.com/customdesign.asp> to contact Amphenol about your specific backshell needs.

Spin Coupling

A captivated coupling nut within the backshell which provides the following advantages:

- assembly of the backshell to the connector easy without turning the entire backshell body.
- prevent accidental decoupling.



Self-Lock Coupling

Same as the Spin Coupling style with the additional of the coupling nut so that accidental decoupling is prevented.



Direct Coupling

The coupling nut is eliminated in this design, and the backshell directly threads to the connector. For applications when simple direct connectivity is sufficient.



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999

HOW TO SELECT A SUITABLE BACKSHELL

1. Based on the design and application considerations select the backshell type from the Quick Reference Guide, pages 479-482.
2. Review the Angle/Profiles and Coupling Styles on page 483 to determine the configuration which suits your application.

CONNECTOR

the connector for which you require the backshell.

W/O INCLUDES

W/O INCLUDES

W/O INCLUDES

MIL-DTL-5015 (Matrix MS345X), MIL-DTL-83723 (Matrix & Pyle Series III)

CONNECTOR

Find the backshell style you need in the appropriate connector group section based on your choice of angle/profile and coupling style.

5. Build a part number from the sample part number on each backshell style page. For the material and finish options, you will need to turn to page 486 and review Table-2.

Selecting a Backshell can also be done from our web link:

<http://www.backshellworld.com/backshelldesigner.asp>

CROSS-REFERENCE TO OTHER MANUFACTURER'S BACKSHELLS

If you have a Military part number or other manufacturer's part number for which you are looking for an equivalent item, we have provided a cross-reference on our web link:

<http://www.backshellworld.com/crossreference.aspx>

CUSTOM BUILT BACKSHELLS

Backshells for Military & Aerospace applications are governed by SAE, AS85049 standard and Amphenol Backshells are designed to meet the requirement of this standard. Though this standard covers the most popular styles of backshells, many applications call for additional styles and designs. Here is where the capability of Amphenol can support you from the concept to product realization and thereby your unique specification need is satisfied. Please visit our web link for further help:

<http://www.backshellworld.com/customdesign.asp>

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

By Specification (TABLE-1A)

Connector Specification	Series/Class	Connector Group Code
40M38277		K
40M39569		J
BS9520	G0001	K
BS9520	G0002	K
BS9520	G0003	L
BS9522 F0001	Patt 602	J
BS9522 F0012	Patt 615	M*
BS9522 F0017	Patt 105	N*
BS9522 F0020	Patt 608	N*
BS9522 F0029	Patt 616	K
BS9522 F0042		J
BS9522 N0001	Patt 603	N*
BS9522 N0003	Patt 614	K
CECC 75201.001		J
CECC 75201.002		L
DEF 5326-3		J
EN 2997		J
EN 3645		L
EN 3646		J
EN3372		M*
ESC 10		J
ESC11		J
* .		M*
LN 29504		J
LN 29728		J
LN29729		M*
MIL-C-81703	3	J
MIL-DTL-26482	2	J
MIL-DTL-38999	I	K
MIL-DTL-38999	II	K
MIL-DTL-38999	III	L
MIL-DTL-38999	IV	L
MIL-DTL-5015	MS340	J
MIL-DTL-5015	MS345	J
MIL-DTL-83723	I	J
MIL-DTL-83723	III	J
NAS 1599		J
NFC93422	HE302	J
NFC93422	HE306	M*
NFC93422	HE308	K
NFC93422	HE309	K
NFL 54140		J
PAN 6432-1		J
PAN 6432-2		J
PAN 6433-1		K
PAN6433-2		M*
VG 96912	2	K
VG 96912	1	M*

By Manufacturer (TABLE-1D)

Amphenol/Bendix/Socapex/Pyle Part Number Prefix	Connector Group Code
10-475	K
118	J
162GB	N*
418-1	K
418-2	K
418-5	M*
486	J
518	J
602GB	J
62GB	N*
652	J
711	J
801	J
91-483	J
944	J
B	J
BE	J
BT	J
BY1	J
EA	J
EB	J
EEG	J
ES	J
ET	J
*4	K
,*4	K
LS	J
MB1	J
MB3	J
MB9	K
MD	J
ML94	L
MQ3	J
MT3	J
MT93	L
PTS-DR	J
3*4	M*
T3	L
TV	L
TVRB	L
TVS	L

* Connector Groups M and N are not included in this catalog section. For more information go to backshellworld.com.

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

MATERIALS & FINISHES

Amphenol offers adapters in the following standard finishes. The base material is aluminum alloy.

MATERIAL:

- Aluminum parts: As per ASTM B 211, 221, 209, 85, 26
- Steel parts: 300 series, as per AMS-QQ-S-763/ASTM A 582
- Elastomers: Fluro Silcon, Silicon
- Other parts: Suitable corrosion resistant material

MIL (QPL) QUALIFICATION

Many Amphenol Backshells are qualified to SAE-AS 85049 standard. (Old standard is MIL-C-85049).

TABLE-2 (PLATING FINISHES)

Amphenol Designation	MIL Designation	Finish	Guiding Specifications/Requirements
A	A	Anodize, Black*	To meet AS85049 requirements
B		Anodize, Hard*	AMS-A-8625, Type-III, Class-1
L		Nickel, Bright	AMS-QQ-290, Class-1, Grade-F
M		Electroless Nickel	AMS-C-26074, Class-4, Grade-B
N	N	Electroless Nickel	To meet AS85049 requirements
T		Cadmium, Bright	AMS-QQ-P-416, Type-I, Class-2
5		Cadmium, Olive drab	AMS-QQ-P-416, Type II, Class 3
V		Cadmium, Olive drab over Electroless Nickel	AMS-QQ-P-416, Type-II, Class-3 (Cadmium); AMS-C-26074, Class-4, grade-B (Nickel)
W	W	Cadmium, Olive drab over Electroless Nickel	To meet AS85049 requirements
Y		Zinc-Cobalt, Dark Olive drab	ASTM-B840
Z		Zinc-Cobalt, Black	ASTM-B840

For availability of other finishes, email your special requirements: email: sales@backshellworld.com

* Non conductive coatings.

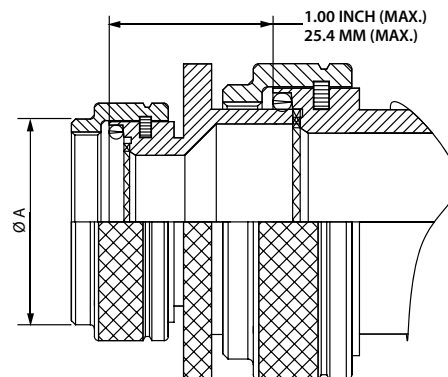
ASSEMBLY TORQUE VALUES

Amphenol recommends the following torque values for its adapters while assembling them to the connectors. These values are based on the coupling thread strength specified in SAE-AS85049 standard.

Connector Shell Size	Torque (Inch-Pounds)
8, 9	40
3, 10, 10SL, 11	40
7, 12, 12S, 13	40
14, 14S, 15	40
16, 16S, 17	40
18, 19, 27	40
20, 21, 37	80
22, 23	80
24, 25, 61	80
28	100
32	100
36	100
40	120
44	120
48	120

STYLE-2 CONFIGURATION

Applications requiring larger diameter cables than the standard shell size; the backshell will be modified to Style-2 as shown in the sketch below. The overall length of the Style-2 backshell will increase by approximately 1 inch (25mm).



Non-Environmental Backshell Straight, Spin Coupling

For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV

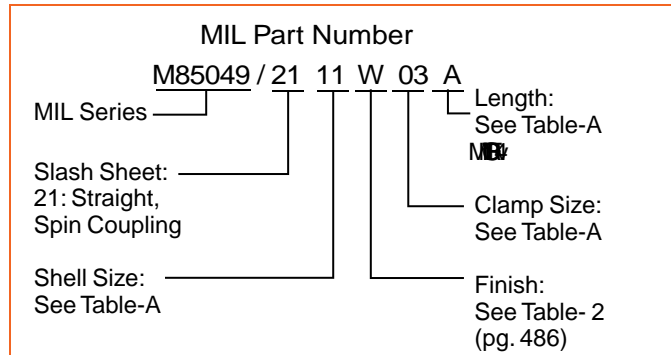
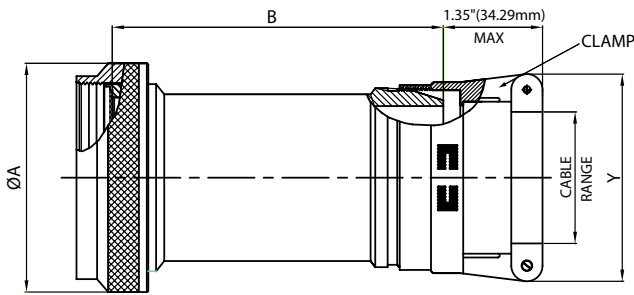


TABLE - A

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)				
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM			
				INCH	MM	INCH	MM									
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	0.80	20.32			
		A														
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86			1.00	25.40	
		A														
11	01	STD.		11 / B	0.06	1.57	0.13			3.18	0.85	21.59	1.53	38.86	0.80	20.32
		A														
	02	STD.			0.13	3.18	0.25			6.35			1.53	38.86	1.00	25.40
		A														
	03	STD.	0.25		6.35	0.38	9.53	1.53	38.86	1.10			27.94			
		A														
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.00	25.40			
		A														
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94			
		A														
04	STD.	0.31	7.92	0.50	12.70	1.53	38.86	1.20	30.48							
	A															
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.10	27.94	1.53	38.86	1.00	25.40			
		A														
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94			
		A														
		B														
		B														
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48			
		A														
		B														
		B														
05	STD.	0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75							
	A															
	B															
	B															
	B															
	B															
17	02	STD.	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	1.53	38.86	1.00	25.40			
		A														
		B														
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94			
		A														
		B														
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48			
		A														
		B														
		B														

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4) .5 3 . .84 0

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Cramp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

For Connector Family L

38999 Series III, IV ~~OR INCLUDES SERIES III~~
and Series IV

TABLE – A, Cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
17, cont.	05	STD.	17/E	0.44	11.10	0.63	15.88	1.25	31.75	1.53	38.86	1.25	31.75				
		A								2.53	64.26						
		B								3.53	89.66						
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A								2.53	64.26						
		B								3.53	89.66						
19	03	STD.	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A								2.53	64.26						
		B								3.53	89.66						
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75				
		A								2.53	64.26						
		B								3.53	89.66						
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A								2.53	64.26						
		B								3.53	89.66						
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10				
		A								2.53	64.26						
		B								3.53	89.66						
	21	03		STD.	21 / G	0.25	6.35			0.38	9.53	1.50	38.10	1.53	38.86	1.10	27.94
				A										2.53	64.26		
				B										3.53	89.66		
04		STD.	0.31	7.92		0.50	12.70	1.53	38.86	1.20	30.48						
		A						2.53	64.26								
		B						3.53	89.66								
05		STD.	0.44	11.10		0.63	15.88	1.53	38.86	1.25	31.75						
		A						2.53	64.26								
		B						3.53	89.66								
06		STD.	0.56	14.27		0.75	19.05	1.53	38.86	1.40	35.56						
		A						2.53	64.26								
		B						3.53	89.66								
07		STD.	0.69	17.45		0.88	22.23	1.53	38.86	1.50	38.10						
		A						2.53	64.26								
		B						3.53	89.66								
08		STD.	0.81	20.62		1.00	25.40	1.53	38.86	1.65	41.91						
		A						2.53	64.26								
		B						3.53	89.66								
23		03	STD.	23 / H		0.25	6.35	0.38	9.53	1.65	41.91			1.53	38.86	1.10	27.94
			A											2.53	64.26		
			B											3.53	89.66		
			C											4.53	115.06		

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4) .5 3 . .84 0

Non-Environmental Backshell Straight, Spin Coupling, cont.

For Connector Family L

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shell

- Options
- Others

38999 Series III, IV

DO NOT INCLUDE SERIES III and Series IV

TABLE – A, Cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
23, cont.	04	STD.	23 / H	0.31	7.92	0.50	12.70	1.65	41.91	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
25	04	STD.	*	0.31	7.92	0.50	12.70	1.75	44.45	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
10	STD.	1.06	26.97	1.25	31.75	1.53	38.86	1.90	48.26				
	A	2.53	64.26										
	B	3.53	89.66										
	C	4.53	115.06										

Note: For more cable entry and length options, email: sales@backshellworld.com. All dimensions for reference only.

Email: sales@backshellworld.com

For Connector Family L

38999 Series III, IV ~~OR INCLUDES SERIES III~~
and Series IV

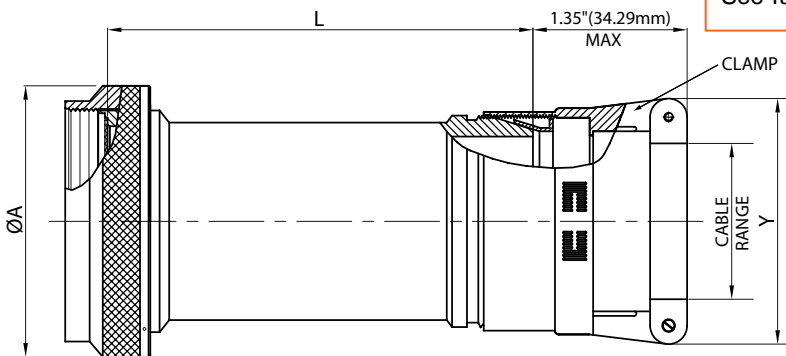
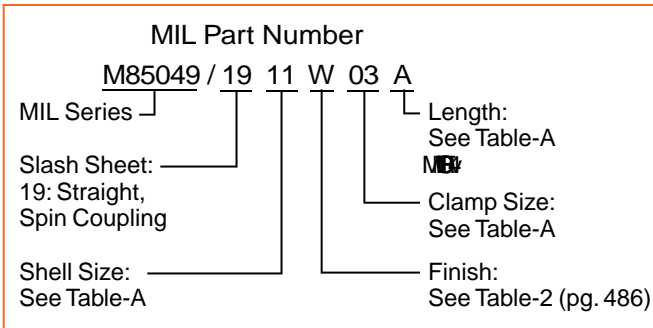


TABLE-A													
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	0.80	20.32
		A								2.53	64.26		
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86	1.00	25.40
		A								2.53	64.26		
11	01	STD.	11 / B	0.06	1.57	0.13	3.18	0.85	21.59	1.53	38.86	0.80	20.32
		A								2.53	64.26		
	02	STD.		0.13	3.18	0.25	6.35			1.53	38.86	1.00	25.40
		A								2.53	64.26		
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94
		A								2.53	64.26		
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.00	25.40
		A								2.53	64.26		
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94
		A								2.53	64.26		
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48
		A								2.53	64.26		
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.10	27.94	1.53	38.86	1.00	25.40
		A								2.53	64.26		
		B								3.53	89.66		
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94
		A								2.53	64.26		
		B								3.53	89.66		
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A								2.53	64.26		
		B								3.53	89.66		

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4),.5 3 . .84 0

For Connector Family L

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-
- Shells

- Options
- Others

38999 Series III, IV

INCLUDES SERIES III and Series IV

TABLE-A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
17	02	STD.	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	1.53	38.86	1.00	25.40				
		A								2.53	64.26						
		B								3.53	89.66						
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.10	27.94				
		A		2.53	64.26												
		B		3.53	89.66												
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A		2.53	64.26												
		B		3.53	89.66												
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75				
		A		2.53	64.26												
		B		3.53	89.66												
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A		2.53	64.26												
		B		3.53	89.66												
	19	03		STD.	19 / F	0.25	6.35			0.38	9.53	1.40	35.56	1.53	38.86	1.10	27.94
				A										2.53	64.26		
				B										3.53	89.66		
04		STD.	0.31	7.92		0.50	12.70	1.53	38.86	1.20	30.48						
		A	2.53	64.26													
		B	3.53	89.66													
05		STD.	0.44	11.10		0.63	15.88	1.53	38.86	1.25	31.75						
		A	2.53	64.26													
		B	3.53	89.66													
06		STD.	0.56	14.27		0.75	19.05	1.53	38.86	1.40	35.56						
		A	2.53	64.26													
		B	3.53	89.66													
07	STD.	0.69	17.45	0.88	22.23	1.53	38.86	1.50	38.10								
	A	2.53	64.26														
	B	3.53	89.66														
21	03	STD.	21 / G	0.25	6.35	0.38	9.53	1.50	38.10	1.53	38.86	1.10	27.94				
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48				
		A		2.53	64.26												
		B		3.53	89.66												
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75				
		A		2.53	64.26												
		B		3.53	89.66												
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56				
		A		2.53	64.26												
		B		3.53	89.66												
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10				
		A		2.53	64.26												
		B		3.53	89.66												
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91				
		A		2.53	64.26												
		B		3.53	89.66												
		C		4.53	115.06												
		C		4.53	115.06												
		C		4.53	115.06												

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4) .5 3 . .84 0

Email: sales@backshellworld.com

For Connector Family L

38999 Series III, IV ~~OR INCLUDES SERIES III~~
and Series IV

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

- Options Others

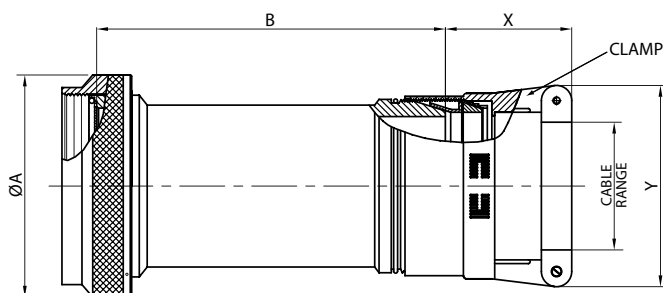
TABLE-A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		L (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
23	03	STD.	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.53	38.86	1.10	27.94
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	04	STD.		0.31	7.92	0.50	12.70			1.53	38.86	1.20	30.48
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
09	STD.	0.94	23.80	1.13	28.58	1.53	38.86	1.75	44.45				
	A	2.53	64.26										
	B	3.53	89.66										
	C	4.53	115.06										
25	04	STD.	*	0.31	7.92	0.50	12.70	1.75	44.45	1.53	38.86	1.20	30.48
		A								2.53	64.26		
		B								3.53	89.66		
		C								4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88			1.53	38.86	1.25	31.75
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	06	STD.		0.56	14.27	0.75	19.05			1.53	38.86	1.40	35.56
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	07	STD.		0.69	17.45	0.88	22.23			1.53	38.86	1.50	38.10
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	08	STD.		0.81	20.62	1.00	25.40			1.53	38.86	1.65	41.91
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
	09	STD.		0.94	23.80	1.13	28.58			1.53	38.86	1.75	44.45
		A		2.53	64.26								
		B		3.53	89.66								
		C		4.53	115.06								
10	STD.	1.06	26.97	1.25	31.75	1.53	38.86	1.90	48.26				
	A	2.53	64.26										
	B	3.53	89.66										
	C	4.53	115.06										

For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV



MIL Part Number
M85049 / 18 11 W 03 A

MIL Series: M85049 / 18
 Slash Sheet: 18: Straight, Spin Coupling
 Shell Size: See Table-A

Length: See Table-A
 MB: 11
 Clamp Size: See Table-A
 Finish: See Table-2 (pg. 486)

TABLE - A

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)				
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM			
				INCH	MM	INCH	MM											
9	01	STD.	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	1.53	38.86	1.25	31.75	0.80	20.32			
		A														2.53	64.26	
02	STD.	0.13		3.18	0.25	6.35	1.53			38.86	1.25	31.75	1.00	25.40				
	A														2.53	64.26		
11	01	STD.		11 / B	0.06	1.57	0.13			3.18	0.85	21.59	1.53	38.86	1.25	31.75	0.80	20.32
		A																	2.53	64.26
	02	STD.	0.13		3.18	0.25	6.35	1.53	38.86	1.25			31.75	1.00	25.40			
		A														2.53	64.26	
	03	STD.	0.25		6.35	0.38	9.53	1.53	38.86	1.25			31.75	1.10	27.94			
		A														2.53	64.26	
13	02	STD.	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	1.53	38.86	1.25	31.75	1.00	25.40			
		A														2.53	64.26	
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.25	31.75	1.10	27.94			
		A														2.53	64.26	
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48			
		A														2.53	64.26	
15	02	STD.	15 / D	0.13	3.18	0.25	6.35	1.15	29.21	1.53	38.86	1.25	31.75	1.00	25.40			
		A														2.53	64.26	
		B														3.53	89.66	
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.25	31.75	1.10	27.94			
		A														2.53	64.26	
		B														3.53	89.66	
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48			
		A														2.53	64.26	
		B														3.53	89.66	
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75			
		A														2.53	64.26	
		B														3.53	89.66	
17	02	STD.	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	1.53	38.86	1.25	31.75	1.00	25.40			
		A														2.53	64.26	
		B														3.53	89.66	
	03	STD.		0.25	6.35	0.38	9.53			1.53	38.86	1.25	31.75	1.10	27.94			
		A														2.53	64.26	
		B														3.53	89.66	
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48			
		A														2.53	64.26	
		B														3.53	89.66	
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75			
		A														2.53	64.26	
		B														3.53	89.66	
06	STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.40	35.56							
	A											2.53	64.26					
	B											3.53	89.66					

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4) .5 3 . .84 0

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Clamp Rear Release Matrix

- 22992
- Class 1

- Back-
- Shells

- Options
- Others

For Connector Family L

38999 Series III, IV ~~and Series III, IV~~
and Series IV

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Cimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

TABLE – A, cont.

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)			
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM		
				INCH	MM	INCH	MM										
19	03	STD.	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66
07	STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10						
	A											2.53	64.26				
	B											3.53	89.66				
21	03	STD.	21 / G	0.25	6.35	0.38	9.53	1.55	39.37	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66
	07	STD.		0.75	19.05	0.88	22.23			1.53	38.86	1.50	38.10	1.50	38.10		
		A														2.53	64.26
		B														3.53	89.66
	08	STD.		0.88	22.23	1.00	25.40			1.53	38.86	1.63	41.40	1.65	41.91		
		A														2.53	64.26
		B														3.53	89.66
23	03	STD.	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.53	38.86	1.25	31.75	1.10	27.94		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.		0.38	9.53	0.50	12.70			1.53	38.86	1.25	31.75	1.20	30.48		
		A														2.53	64.26
		B														3.53	89.66
	05	STD.		0.50	12.70	0.63	15.88			1.53	38.86	1.31	33.27	1.25	31.75		
		A														2.53	64.26
		B														3.53	89.66
	06	STD.		0.63	15.88	0.75	19.05			1.53	38.86	1.38	35.05	1.40	35.56		
		A														2.53	64.26
		B														3.53	89.66

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

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For Connector Family L

38999

38999 Series III, IV

INCLUDES SERIES III and Series IV

TABLE – A, cont.																			
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		X (MAX)		Y (MAX)					
CONNECTOR SHELL SIZE	CLAMP SIZE	LENGTH CODE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM												
23, cont.	07	STD.	23 / H	0.75	19.05	0.88	22.23	1.65	41.91	1.53	38.86	1.50	38.10	1.50	38.10				
		A								2.53	64.26								
		B								3.53	89.66								
		C								4.53	115.06								
	08	STD.		0.88	22.23	1.00	25.40			1.63	41.40	1.65	42.91	1.53	38.86	1.63	41.40	1.65	42.91
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	09	STD.		1.00	25.40	1.13	28.58			1.63	41.40	1.75	44.45	1.53	38.86	1.63	41.40	1.75	44.45
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
25	04	STD.	*	0.38	9.53	0.50	12.70	1.85	46.99	1.53	38.86	1.25	31.75	1.20	30.48				
		A								2.53	64.26								
		B								3.53	89.66								
		C								4.53	115.06								
	05	STD.		0.50	12.70	0.63	15.88			1.31	33.27	1.25	31.75	1.53	38.86	1.31	33.27	1.25	31.75
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	06	STD.		0.63	15.88	0.75	19.05			1.38	35.05	1.40	35.56	1.53	38.86	1.38	35.05	1.40	35.56
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	07	STD.		0.75	19.05	0.88	22.23			1.50	38.10	1.50	38.10	1.53	38.86	1.50	38.10	1.50	38.10
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	08	STD.		0.88	22.23	1.00	25.40			1.63	41.40	1.65	41.91	1.53	38.86	1.63	41.40	1.65	41.91
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
	09	STD.		1.00	25.40	1.13	28.58			1.63	41.40	1.75	44.45	1.53	38.86	1.63	41.40	1.75	44.45
		A												2.53	64.26				
		B												3.53	89.66				
		C												4.53	115.06				
10	STD.	1.13	28.58	1.25	31.75	1.63	41.40	1.90	48.26	1.53	38.86	1.63	41.40	1.90	48.26				
	A									2.53	64.26								
	B									3.53	89.66								
	C									4.53	115.06								

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

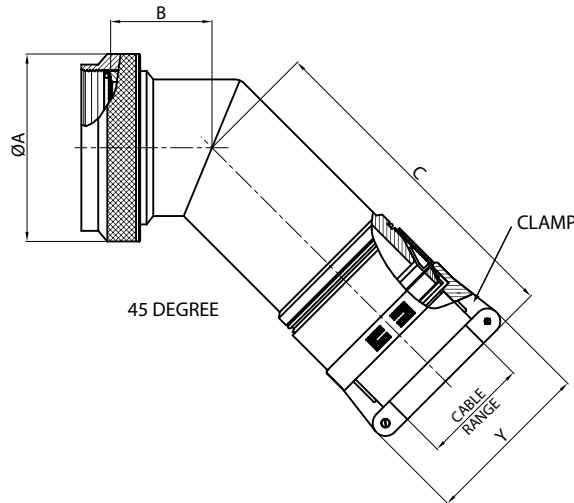
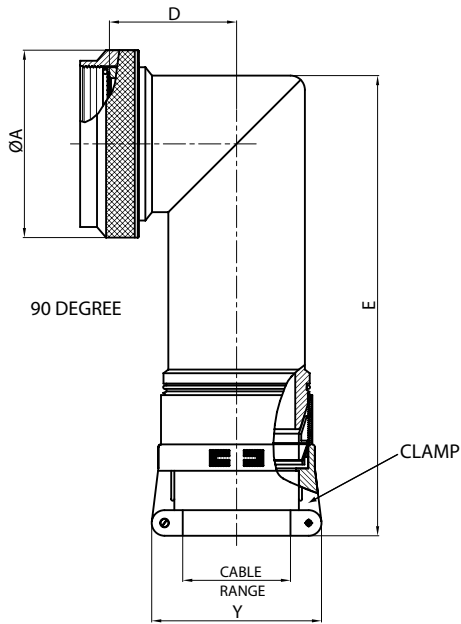
- Back-
- Shells

- Options
- Others

For Connector Family L

38999 Series III, IV

DO NOT INCLUDES SERIES III and Series IV



MIL Part Number
M85049 / 79 11 W 03

MIL Series: M85049 / 79
 Slash Sheet: 11
 Shell Size: W
 Clamp Size: 03

Finish: See Table-2 (pg. 486)

TABLE - B

-), 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE/ CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)	
CONNECTOR SHELL SIZE	CLAMP SIZE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
			INCH	MM	INCH	MM												
9	01	09 / A	0.06	1.57	0.13	3.18	0.75	19.05	0.46	11.68	3.15	80.01	0.69	17.53	3.46	87.88	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
11	01	11 / B	0.06	1.57	0.13	3.18	0.85	21.59	0.52	13.21	3.21	81.53	0.78	19.81	3.58	90.93	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
13	02	13 / C	0.13	3.18	0.25	6.35	1.00	25.40	0.58	14.73	3.27	83.06	0.80	20.32	3.60	91.44	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
15	02	15 / D	0.13	3.18	0.25	6.35	1.15	29.21	0.65	16.51	3.36	85.34	0.88	22.35	3.67	93.22	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
17	02	17 / E	0.13	3.18	0.25	6.35	1.25	31.75	0.74	18.80	3.47	88.14	0.93	23.62	3.76	95.50	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4) .5 3 . .84 0

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

For Connector Family L

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

38999 Series III, IV ~~and Series III~~ and Series IV

TABLE - B, cont.

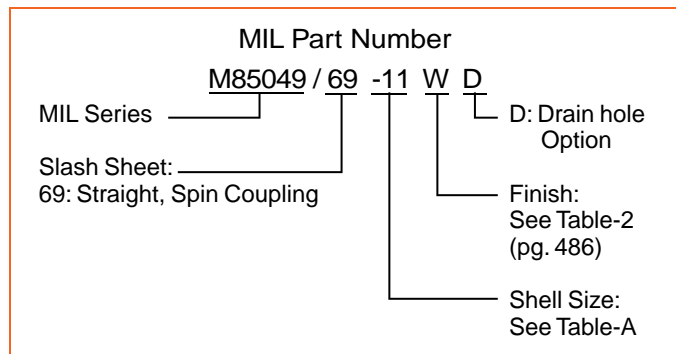
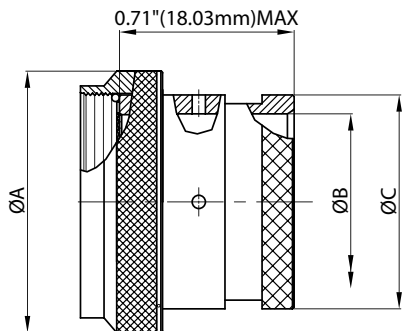
DESIGNATOR -), 024.5 - 2	CONNECTOR SHELL SIZE/ CLAMP SIZE CODE (REF.)	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)		
		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
		INCH	MM	INCH	MM													
19	03	19 / F	0.25	6.35	0.38	9.53	1.40	35.56	0.93	23.62	3.66	92.96	1.01	25.65	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
21	03	21 / G	0.25	6.35	0.38	9.53	1.55	39.37	0.93	23.62	3.66	92.96	1.06	26.92	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
23	03	23 / H	0.25	6.35	0.38	9.53	1.65	41.91	1.02	25.91	3.81	96.77	1.17	29.72	4.04	102.62	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
	09		1.00	25.40	1.13	28.58											1.75	44.45
25	04	*	0.38	9.53	0.50	12.70	1.85	46.99	1.02	25.91	3.81	96.77	1.18	29.97	4.04	102.62	1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
	09		1.00	25.40	1.13	28.58											1.75	44.45
	10		1.13	28.58	1.25	31.75											1.90	48.26

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

For Connector Family L

38999 Series III, IV

INCLUDES 38999
and Series IV



MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE / CODE (REF.)	A DIA. (MAX)		B DIA. (MIN)		C DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM
9	09 / A	0.75	19.05	0.25	6.35	0.53	13.54
11	11 / B	0.85	21.59	0.38	9.53	0.61	15.37
13	13 / C	1.00	25.40	0.50	12.70	0.77	19.66
15	15 / D	1.15	29.21	0.63	15.88	0.84	21.29
17	17 / E	1.25	31.75	0.75	19.05	0.94	23.77
19	19 / F	1.40	35.56	0.81	20.62	1.04	26.47
21	21 / G	1.55	39.37	0.94	23.80	1.22	30.91
23	23 / H	1.65	41.91	1.06	26.97	1.36	34.42
25	*	1.85	46.99	1.19	30.18	1.44	36.65

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release
Matrix

22992
Class I

Back-
Shells

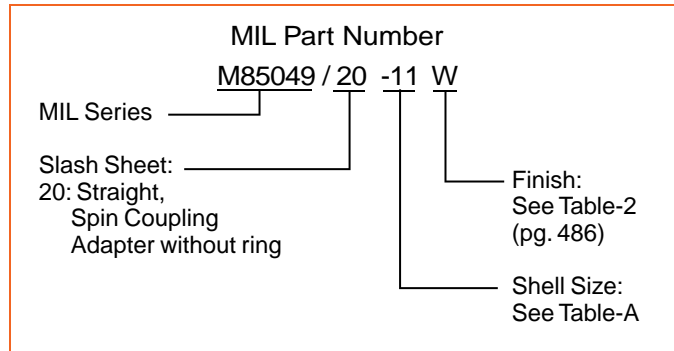
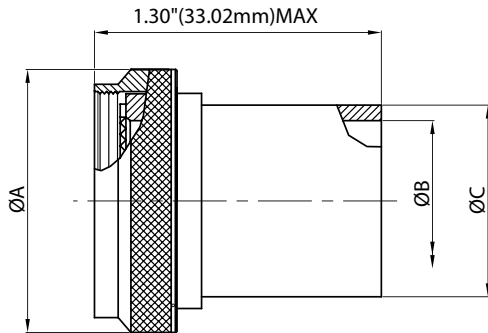
Options
Others

Crimp Ring Adapter Straight, Spin Coupling without Ring

For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV



Refer to page 544 for ordering details of Ring.

TABLE – A

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B DIA.(MAX)		C DIA.(MAX)	
		INCH	MM	INCH	MM	INCH	MM
9	9 / A	0.75	19.05	0.27	6.73	0.35	8.81
11	11 / B	0.85	21.59	0.34	8.71	0.50	12.65
13	13 / C	1.00	25.40	0.44	11.10	0.51	12.95
15	15 / D	1.10	27.94	0.56	14.27	0.63	16.00
17	17 / E	1.25	31.75	0.69	17.45	0.76	19.30
19	19 / F	1.40	35.56	0.81	20.62	0.89	22.61
21	21 / G	1.50	38.10	0.94	23.80	1.01	25.65
23	23 / H	1.65	41.91	1.05	26.57	1.13	28.70
25	*	1.75	44.45	1.13	28.58	1.20	30.53

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

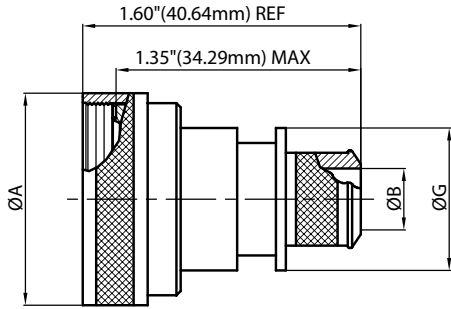
22992
Class 1

Back-Shell

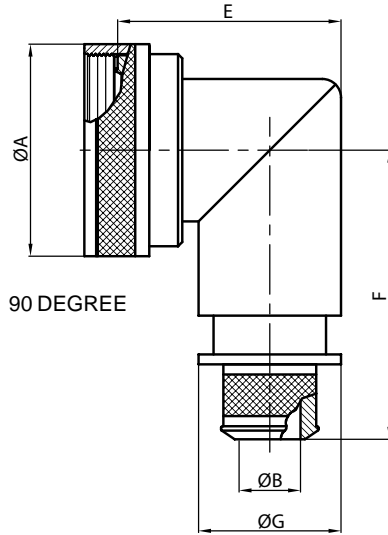
Options
Others

For Connector Family L

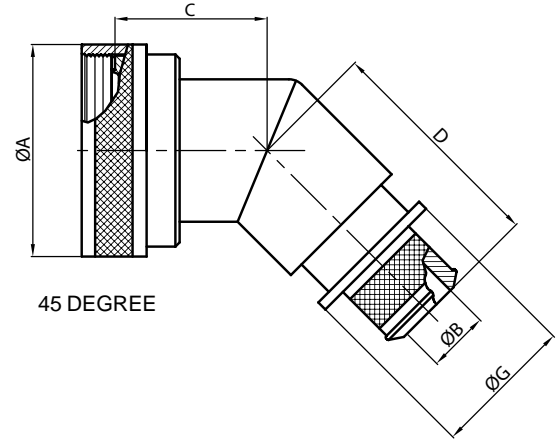
38999 Series III, IV ~~Series III, IV~~ and Series IV



STRAIGHT



90 DEGREE



45 DEGREE

MIL Part Number

M85049 / 88 -11 W 03

MIL Series: M85049 / 88
 Slash Sheet: 88: Straight, Self-Lock

Entry Size: See Table-A

Finish: See Table-2 (pg. 486)

Shell Size: See Table-A

TABLE-A

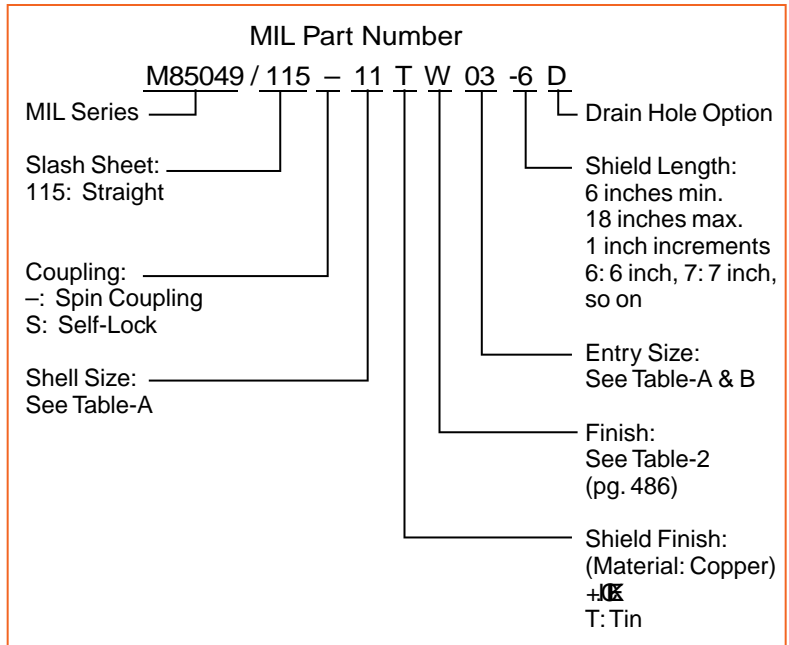
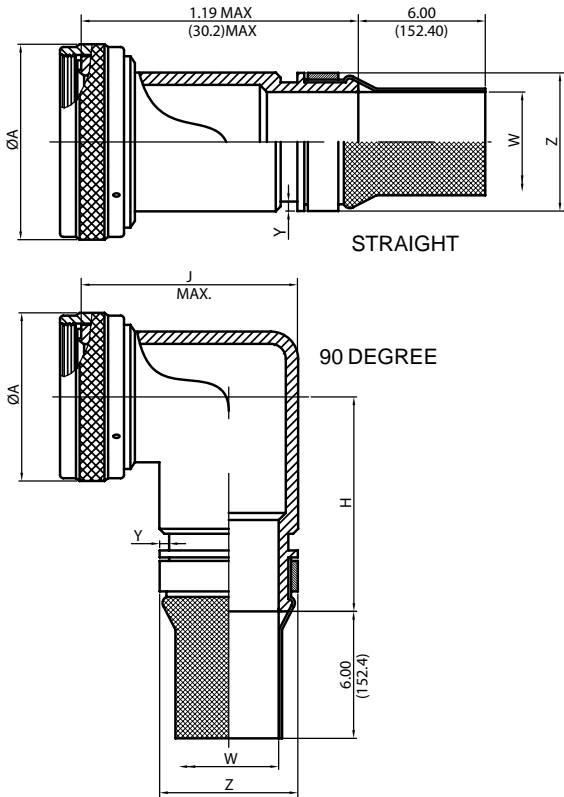
-), 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX.)		G MAX	
CONNECTOR SHELL SIZE	ENTRY SIZE		INCH	MM	+0.00	+0.00	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
					-0.02	-0.50										
9	02	09 / A	0.86	21.82	N/A	N/A	1.01	25.65	1.16	29.46	1.38	34.93	1.42	35.99	N/A	N/A
	03				0.26	6.60									0.56	14.22
11	02	11 / B	0.99	25.04	N/A	N/A	1.03	26.16	1.19	30.23	1.44	36.50	1.48	37.59	N/A	N/A
	03				0.32	8.13									0.63	16.00
13	02	13 / C	1.16	29.36	0.32	8.13	1.06	26.92	1.21	30.73	1.56	39.67	1.55	39.45	0.63	16.00
	03				0.45	11.43									0.75	19.05
15	02	15 / D	1.28	32.54	0.45	11.43	1.08	27.43	1.24	31.50	1.69	42.85	1.61	41.00	0.75	19.05
	03				0.57	14.48									0.89	22.61
17	02	17 / E	1.41	35.71	0.51	12.95	1.11	28.19	1.26	32.00	1.75	44.45	1.68	42.62	0.82	20.83
	03				0.64	16.26									0.95	24.13
19	02	19 / F	1.52	38.51	0.64	16.26	1.12	28.45	1.27	32.26	1.88	47.63	1.77	45.03	0.95	24.13
	03				0.76	19.30									1.07	27.18
21	02	21 / G	1.64	41.68	0.64	16.26	1.15	29.21	1.30	33.02	1.94	49.23	1.80	45.62	0.95	24.13
	03				0.82	20.83									1.13	28.07
23	02	23 / H	1.77	44.86	0.70	17.78	1.17	29.72	1.33	33.78	2.06	52.37	1.86	47.22	1.02	25.99
	03				0.95	24.13									1.26	32.00
25	02	*	1.89	48.03	0.76	19.30	1.20	30.48	1.35	34.29	2.13	53.98	1.92	48.74	1.07	27.18
	03				1.01	25.65									1.32	33.53

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV



024.5 - 2 DESIGNATOR			CONNECTOR SHELL SIZE / CODE (REF.)	A DIA. (MAX)		H (MAX)		* - 8	
SHELL SIZE - MIL	ALLOWABLE ENTRY SIZE			INCH	MM	INCH	MM	INCH	MM
	MIN	MAX							
09	-	01	9 / A	0.860	21.84	1.73	43.94	0.88	22.35
11	01	03	11 / B	0.980	24.89	1.85	46.99	1.00	25.40
13	01	05	13 / C	1.160	29.46	1.87	47.50	1.13	28.70
15	03	07	15 / D	1.280	32.51	1.94	49.28	1.31	33.27
17	05	09	17 / E	1.410	35.81	2.03	51.56	1.50	38.10
19	06	10	19 / F	1.520	38.61	2.20	55.88	1.75	44.45
21	08	12	21 / G	1.640	41.66	2.20	55.88	1.75	44.45
23	09	13	23 / H	1.770	44.96	2.31	58.67	2.00	50.80
25	10	14	*	1.890	48.01	2.31	58.67	2.00	50.80

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

ENTRY SIZE	W	W	Y	Y	Z	Z
	±0.020	±0.508	+0.008	+0.200	MAX	MAX
	INCH	MM	-0.000	-0.000	INCH	MM
01	0.250	6.350	0.044	1.12	0.56	14.22
02	0.312	7.920	0.044	1.12	0.63	16.00
03	0.375	9.530	0.044	1.12	0.69	17.53
04	0.438	11.130	0.044	1.12	0.75	19.05
05	0.500	12.700	0.044	1.12	0.82	20.83
06	0.562	14.270	0.044	1.12	0.89	22.61
07	0.625	15.880	0.044	1.12	0.95	24.13
08	0.688	17.480	0.044	1.12	1.02	25.91
09	0.750	19.050	0.069	1.75	1.07	27.18
10	0.812	20.620	0.069	1.75	1.13	28.70
11	0.875	22.230	0.069	1.75	1.19	30.23
12	0.938	23.830	0.069	1.75	1.26	32.00
13	1.000	25.400	0.069	1.75	1.32	33.53
14	1.125	28.575	0.069	1.75	1.47	37.34

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

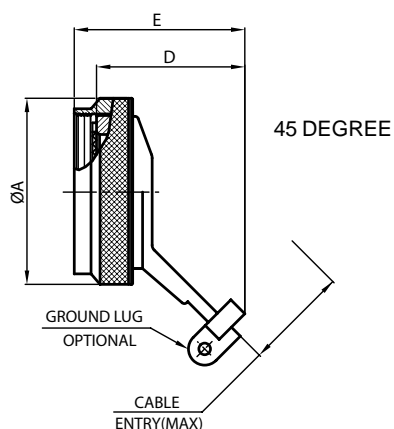
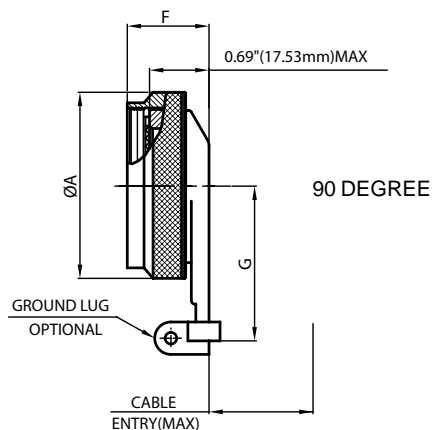
Back-Shell

Options
Others

For Connector Family L

38999 Series III, IV

DO NOT INCLUDES SERIES III and Series IV



MIL Part Number

M85049 / 16 - 11 W

MIL Series: M85049
Slash Sheet: / 16
Finish: See Table-2 (pg. 486)
Shell Size: See Table-A
Coupling:
S: Self-Lock
G: Self-Lock with grounding Lug
-: Non Self-Lock

TABLE - A

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE ENTRY MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
9	9 / A	0.86	21.79	1.03	26.16	1.43	36.32	0.99	25.15	1.22	30.99	0.26	6.71
11	11 / B	0.98	24.99	1.03	26.16	1.43	36.32	0.99	25.15	1.29	32.77	0.39	9.96
13	13 / C	1.16	29.39	1.03	26.16	1.43	36.32	0.99	25.15	1.62	41.15	0.51	12.85
15	15 / D	1.28	32.49	1.09	27.69	1.93	49.02	0.99	25.15	1.66	42.16	0.63	16.03
17	17 / E	1.41	35.71	1.11	28.19	1.93	49.02	0.99	25.15	1.72	43.69	0.76	19.20
19	19 / F	1.52	38.51	1.21	30.73	2.03	51.56	0.99	25.15	1.72	43.69	0.85	21.46
21	21 / G	1.64	41.71	1.26	32.00	2.09	53.09	0.99	25.15	1.79	45.47	0.97	24.64
23	23 / H	1.77	44.91	1.30	33.02	2.09	53.09	0.99	25.15	1.85	46.99	1.10	27.81
25	*	1.89	47.98	1.34	34.04	2.24	56.90	0.99	25.15	1.91	48.51	1.22	30.99

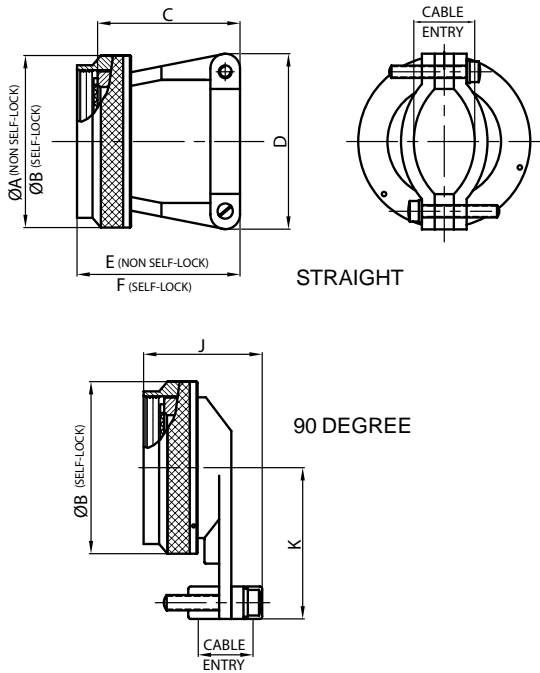
Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.



For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV



MIL Part Number

MIL Series: M85049 / 38

Slash Sheet: 38: Straight

Finish: See Table-2 (pg. 486)

Shell Size: See Table-A

Coupling: S: Self-Lock, -: Non Self-Lock

Example: M85049 / 38 - 11 W

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B DIA.(MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
09	9 / A	0.75	19.05	0.86	21.82	0.91	23.11	0.85	21.59	1.10	27.94	1.21	30.73
11	11 / B	0.85	21.59	0.98	24.99	0.91	23.11	0.90	22.86	1.10	27.94	1.21	30.73
13	13 / C	1.00	25.40	1.16	29.36	1.01	25.65	1.10	27.94	1.20	30.48	1.31	33.27
15	15 / D	1.10	27.94	1.28	32.54	1.06	26.92	1.15	29.21	1.25	31.75	1.35	34.29
17	17 / E	1.25	31.75	1.41	35.71	1.16	29.46	1.30	33.02	1.36	34.44	1.45	36.83
19	19 / F	1.40	35.56	1.52	38.51	1.41	35.81	1.50	38.10	1.60	40.64	1.71	43.43
21	21 / G	1.50	38.10	1.64	41.68	1.51	38.35	1.60	40.64	1.70	43.21	1.81	45.97
23	23 / H	1.65	41.91	1.77	44.86	1.66	42.16	1.70	43.18	1.85	46.99	1.95	49.53
25	*	1.75	44.45	1.89	48.03	1.76	44.70	1.80	45.72	1.95	49.56	2.05	52.07

TABLE - A, cont.

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	* - 8		+ - 8		CABLE ENTRY			
		INCH	MM	INCH	MM	MIN		MAX	
						INCH	MM	INCH	MM
9	9 / A	1.31	33.27	1.00	25.40	0.10	2.49	0.23	5.94
11	11 / B	1.31	33.27	1.10	27.94	0.15	3.89	0.23	5.94
13	13 / C	1.51	38.35	1.10	27.94	0.19	4.83	0.33	8.33
15	15 / D	1.55	39.37	1.25	31.75	0.26	6.60	0.46	11.61
17	17 / E	1.71	43.43	1.30	33.02	0.28	7.19	0.61	15.60
19	19 / F	1.81	45.97	1.35	34.29	0.33	8.26	0.63	16.10
21	21 / G	1.95	49.53	1.60	40.64	0.34	8.71	0.70	17.73
23	23 / H	2.10	53.34	1.75	44.45	0.38	9.68	0.82	20.90
25	*	2.21	56.13	1.85	46.99	0.42	10.62	0.85	21.67

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

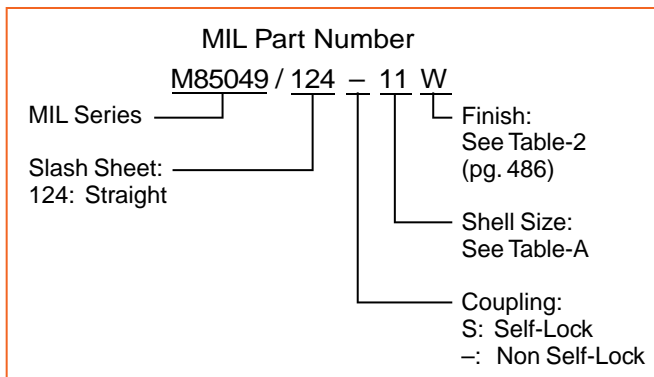
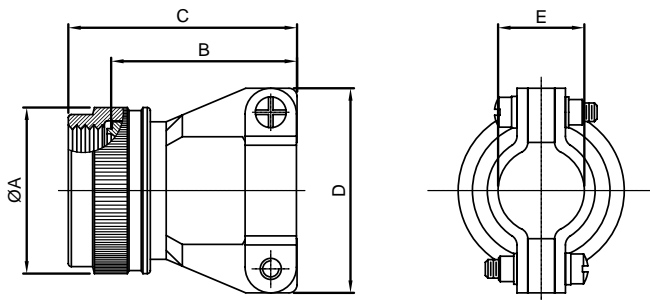
22992 Class I

Back-Shell

Options Others

For Connector Family L

38999 Series III, IV ~~OR INCLUDES SERIES III, IV~~
and Series IV



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B LENGTH		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
										INCH	MM
09	9 / A	0.86	21.79	0.77/0.51	19.56/12.95	1.01	25.65	0.88	22.35	0.22	5.56
11	11 / B	0.98	24.99	0.89/0.64	22.61/16.26	1.13	28.70	0.94	23.88	0.26	6.71
13	13 / C	1.16	29.39	1.01/0.76	25.65/19.30	1.25	31.75	1.12	28.45	0.34	8.74
15	15 / D	1.28	32.49	1.01/0.76	25.65/19.30	1.25	31.75	1.19	30.23	0.46	11.68
17	17 / E	1.41	35.71	1.13/0.88	28.70/22.35	1.37	34.80	1.44	36.58	0.55	13.84
19	19 / F	1.52	38.51	1.38/1.13	35.05/28.70	1.62	41.15	1.56	39.62	0.62	15.62
21	21 / G	1.64	41.71	1.51/1.25	38.35/31.75	1.75	44.45	1.69	42.93	0.69	17.53
23	23 / H	1.77	44.91	1.62/1.38	41.15/35.05	1.87	47.50	1.75	44.45	0.78	19.81
25	*	1.87	47.47	1.76/1.51	44.70/38.35	2.00	50.80	1.88	47.75	0.85	21.59

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.



For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV

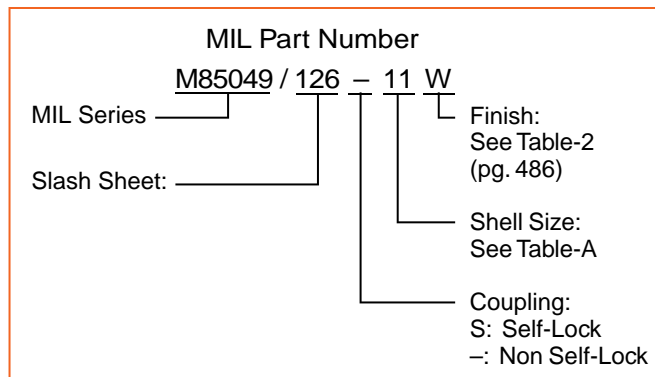
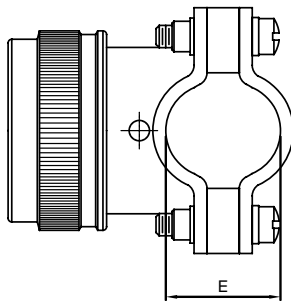
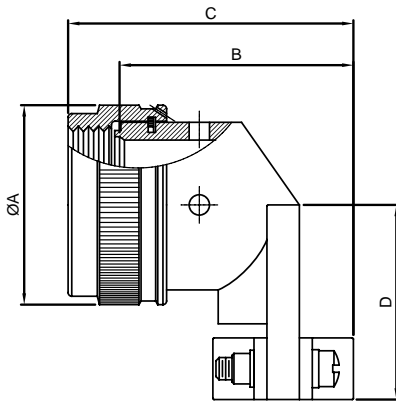


TABLE - A											
MIL PART DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B (MAX)		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
										INCH	MM
09	9 / A	0.86	21.79	0.86	21.84	1.14	28.96	0.81	20.57	0.22	5.56
11	11 / B	0.98	24.99	0.94	23.88	1.22	30.99	0.87	22.10	0.26	6.71
13	13 / C	1.16	29.39	1.14	28.96	1.42	36.07	0.93	23.62	0.34	8.74
15	15 / D	1.28	32.49	1.20	30.48	1.48	37.59	0.99	25.15	0.46	11.68
17	17 / E	1.41	35.71	1.34	34.04	1.62	41.15	1.09	27.69	0.55	13.84
19	19 / F	1.52	38.51	1.46	37.08	1.74	44.20	1.23	31.24	0.62	15.62
21	21 / G	1.64	41.71	1.58	40.13	1.86	47.24	1.30	33.02	0.70	17.73
23	23 / H	1.77	44.91	1.71	43.43	1.99	50.55	1.36	34.54	0.78	19.81
25	*	1.87	47.47	1.83	46.48	2.11	53.59	1.42	36.07	0.85	21.59

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

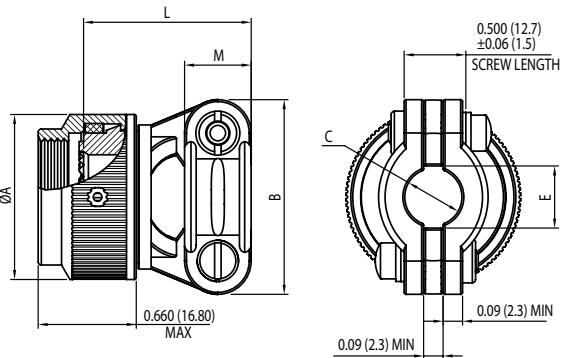
22992 Class I

Back-Shells

Options Others

For Connector Family L

38999 Series III, IV ~~OR INCLUDES SERIES III~~
and Series IV



MIL Part Number

BS1 S R L 10 99 9 X T

Series: **BS1** Material & Finish: **T**: Composite, without plating
~~OR DRAB~~
Drab
M: Composite, Electroless Nickel

Angle: **S**: Straight

Coupling: **R**: Spin
S: Self-Lock

Connector Group: **10 99 9** Length: **9**: For standard length in Table-A

Shell Size: **X T** Entry Size: **99**: For standard entry size in Table-A

See Table-A

MIL PART 5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B (MAX)		C (MAX)		E (MIN)		L (MAX)		M	
		INCH	MM	INCH	MM	±0.031	±0.78	INCH	MM	INCH	MM	±.0.03	±.0.76
						INCH	MM					INCH	MM
08	9 / A	0.858	21.79	0.980	24.89	0.219	5.56	0.229	5.82	0.840	21.34	0.375	9.53
10	11 / B	0.984	24.99	1.05	26.67	0.264	6.71	0.274	6.96	0.960	24.38	0.375	9.53
12	13 / C	1.157	29.39	1.20	30.48	0.344	8.74	0.354	8.99	1.100	27.94	0.406	10.31
14	15 / D	1.280	32.51	1.30	33.02	0.460	11.68	0.470	11.94	1.100	27.94	0.406	10.31
16	17 / E	1.406	35.71	1.42	36.07	0.545	13.84	0.555	14.10	1.230	31.24	0.406	10.31
18	19 / F	1.516	38.51	1.52	38.61	0.615	15.62	0.625	15.88	1.410	35.81	0.406	10.31
20	21 / G	1.642	41.71	1.64	41.66	0.698	17.73	0.708	17.98	1.510	38.35	0.406	10.31
22	23 / H	1.768	44.91	1.77	44.96	0.780	19.81	0.790	20.07	1.660	42.16	0.406	10.31
24	*	1.890	48.01	1.89	48.01	0.850	21.59	0.860	21.84	1.760	44.70	0.406	10.31

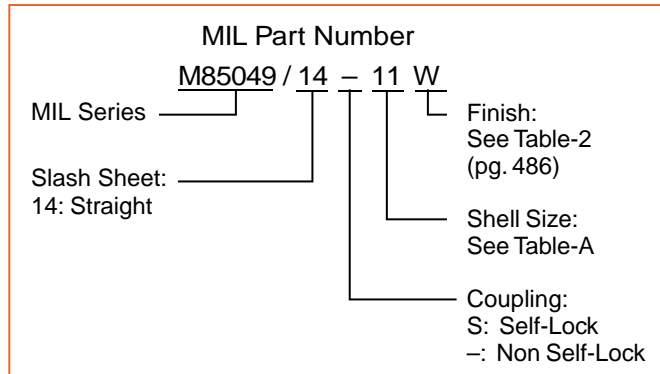
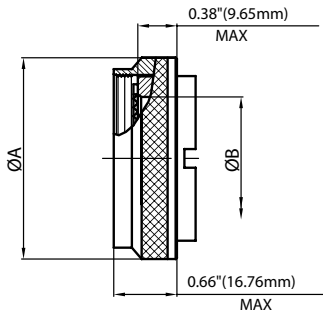
Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

Grommet Nut Straight, Self-Lock/Non Self-Lock

For Connector Family L

38999 Series III, IV

INCLUDES SERIES III and Series IV



Note: * Slot shown in figure is optional for Non Self-Lock

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B (MAX)	
		INCH	MM	INCH	MM
9	09 / A	0.86	21.79	0.26	6.71
11	11 / B	0.98	24.99	0.39	9.91
13	13 / C	1.16	29.39	0.50	12.80
15	15 / D	1.28	32.49	0.63	16.00
17	17 / E	1.41	35.71	0.76	19.20
19	19 / F	1.52	38.51	0.84	21.41
21	21 / G	1.64	41.71	0.97	24.64
23	23 / H	1.77	44.91	1.09	27.71
25	*	1.87	47.98	1.22	30.91

All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

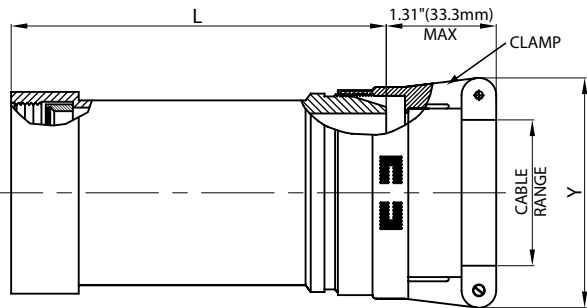
38999



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL Part Number

M85049 / 29 10 W 06 A

MIL Series: M85049 / 29
 Slash Sheet: 29: Straight, Direct Coupling
 Shell Size: See Table-A

Length: See Table-A
 Clamp Size: See Table-A
 Finish: See Table-2 (pg. 486)

MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE SE-II/I	CABLE RANGE				L (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM
				INCH	MM	INCH	MM				
08	01	STD.	8 / 9	0.06	1.57	0.13	3.18	1.03	26.16	0.78	19.81
		A						2.03	51.56		
	02	STD.		0.13	3.18	0.25	6.35	1.03	26.16	0.97	24.64
		A						2.03	51.56		
10	01	STD.	10 / 11	0.06	1.57	0.13	3.18	1.03	26.16	0.78	19.81
		A						2.03	51.56		
	02	STD.		0.13	3.18	0.25	6.35	1.03	26.16	0.97	24.64
		A						2.03	51.56		
	03	STD.		0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
12	02	STD.	12 / 13	0.13	3.18	0.25	6.35	1.03	26.16	0.97	24.64
		A						2.03	51.56		
	03	STD.		0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
	04	STD.		0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
14	02	STD.	14 / 15	0.13	3.18	0.25	6.35	1.03	26.16	0.97	24.64
		A						2.03	51.56		
		B						3.03	76.96		
		STD.						1.03	26.16		
	03	A		0.25	6.35	0.38	9.53	2.03	51.56	1.06	26.92
		B						3.03	76.96		
		STD.						1.03	26.16		
		A						2.03	51.56		
	04	B		0.31	7.92	0.50	12.70	3.03	76.96	1.16	29.46
		STD.						1.03	26.16		
		A						2.03	51.56		
		B						3.03	76.96		
05	STD.	0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75		
	A					2.03	51.56				
	B					3.03	76.96				
	STD.					1.03	26.16				

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4) .5 3 . .84 0

Non-Environmental Backshell Straight, Direct Coupling, cont.



38999 Series II 38999 Series I MIL-DTL-38999 Series II and Series I

TABLE A											
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE SE - II / I	CABLE RANGE				L (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM
				INCH	MM	INCH	MM				
16	02	STD.	16 / 17	0.13	3.18	0.25	6.35	1.03	26.16	0.97	24.64
		A						2.03	51.56		
		B						3.03	76.96		
	03	STD.		0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
		B						3.03	76.96		
	04	STD.		0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
		B						3.03	76.96		
	05	STD.		0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75
		A						2.03	51.56		
		B						3.03	76.96		
06	STD.	0.56	14.27	0.75	19.05	1.03	26.16	1.38	35.05		
	A					2.03	51.56				
	B					3.03	76.96				
18	03	STD.	18 / 19	0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
		B						3.03	76.96		
	04	STD.		0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
		B						3.03	76.96		
	05	STD.		0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75
		A						2.03	51.56		
		B						3.03	76.96		
	06	STD.		0.56	14.27	0.75	19.05	1.03	26.16	1.38	35.05
		A						2.03	51.56		
		B						3.03	76.96		
07	STD.	0.69	17.45	0.88	22.23	1.03	26.16	1.50	38.10		
	A					2.03	51.56				
	B					3.03	76.96				
20	03	STD.	20 / 21	0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	04	STD.		0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	05	STD.		0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	06	STD.		0.56	14.27	0.75	19.05	1.03	26.16	1.38	35.05
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	07	STD.		0.69	17.45	0.88	22.23	1.03	26.16	1.50	38.10
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	08	STD.		0.81	20.62	1.00	25.40	1.03	26.16	1.63	41.40
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4) .5 3 . .84 0

38999



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I

TABLE A											
MIL PART NUMBER DESIGNATOR			CONNECTOR SHELL SIZE SE - II / I	CABLE RANGE				L (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH		MIN		MAX		INCH	MM	INCH	MM
				INCH	MM	INCH	MM				
22	03	STD.	22 / 23	0.25	6.35	0.38	9.53	1.03	26.16	1.06	26.92
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	04	STD.		0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	05	STD.		0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	06	STD.		0.56	14.27	0.75	19.05	1.03	26.16	1.38	35.05
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	07	STD.		0.69	17.45	0.88	22.23	1.03	26.16	1.50	38.10
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	08	STD.		0.81	20.62	1.00	25.40	1.03	26.16	1.63	41.40
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
09	STD.	0.94	23.80	1.13	28.58	1.03	26.16	1.75	44.45		
	A					2.03	51.56				
	B					3.03	76.96				
	C					4.03	102.36				
24	04	STD.	24 / 25	0.31	7.92	0.50	12.70	1.03	26.16	1.16	29.46
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	05	STD.		0.44	11.10	0.63	15.88	1.03	26.16	1.25	31.75
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	06	STD.		0.56	14.27	0.75	19.05	1.03	26.16	1.38	35.05
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	07	STD.		0.69	17.45	0.88	22.23	1.03	26.16	1.50	38.10
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	08	STD.		0.81	20.62	1.00	25.40	1.03	26.16	1.63	41.40
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
	09	STD.		0.94	23.80	1.13	28.58	1.03	26.16	1.75	44.45
		A						2.03	51.56		
		B						3.03	76.96		
		C						4.03	102.36		
10	STD.	1.06	26.97	1.25	31.75	1.03	26.16	1.88	47.75		
	A					2.03	51.56				
	B					3.03	76.96				
	C					4.03	102.36				

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

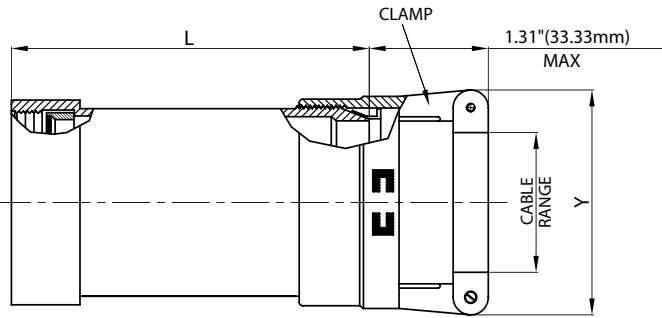
Non-Environmental EMI/RFI Backshell Straight, Direct Coupling, cont.



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL Part Number
M85049 / 36 10 W 03 A

MIL Series: M85049 / 36
 Slash Sheet: 10 W 03 A
 Shell Size: 36: Straight, Direct Coupling
 Length: See Table-A
 Clamp Size: See Table-A
 Finish: See Table-2 (pg. 486)

			TABLE-A								
ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH CODE	CONNECTOR SHELL SIZE SE-II/I	CABLE RANGE				L (MAX)		Y (MAX)	
				MIN		MAX		INCH	MM	INCH	MM
				INCH	MM	INCH	MM				
08	01	STD.	8 / 9	0.06	1.57	0.13	3.18	1.53	38.86	0.78	19.81
		A						2.53	64.26		
	02	STD.		0.13	3.18	0.25	6.35	1.53	38.86	0.97	24.64
		A						2.53	64.26		
10	01	STD.	10 / 11	0.06	1.57	0.13	3.18	1.53	38.86	0.78	19.81
		A						2.53	64.26		
	02	STD.		0.13	3.18	0.25	6.35	1.53	38.86	0.97	24.64
		A						2.53	64.26		
	03	STD.		0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
		A						2.53	64.26		
12	02	STD.	12 / 13	0.13	3.18	0.25	6.35	1.53	38.86	0.97	24.64
		A						2.53	64.26		
	03	STD.		0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
		A						2.53	64.26		
	04	STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
		A						2.53	64.26		
14	02	STD.	14 / 15	0.13	3.18	0.25	6.35	1.53	38.86	0.97	24.64
		A						2.53	64.26		
		B						3.53	89.66		
	03	STD.		0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
		A						2.53	64.26		
		B						3.53	89.66		
	04	STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
		A						2.53	64.26		
		B						3.53	89.66		
	05	STD.		0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75
		A						2.53	64.26		
		B						3.53	89.66		
16	02	STD.	16 / 17	0.13	3.18	0.25	6.35	1.53	38.86	0.97	24.64
		A						2.53	64.26		
		B						3.53	89.66		
	03	STD.		0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
		A						2.53	64.26		
		B						3.53	89.66		
	04	STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
		A						2.53	64.26		
		B						3.53	89.66		
	05	STD.		0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75
		A						2.53	64.26		
		B						3.53	89.66		
	06	STD.		0.56	14.27	0.75	19.05	1.53	38.86	1.38	35.05
		A						2.53	64.26		
		B						3.53	89.66		

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

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email: sales@backshellworld.com

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Clamp Rear Release Matrix

22992
Class I

Back-Shell

Options
Others

38999



38999 Series II

38999 Series I



MIL-DTL-38999 Series II and Series I

TABLE-A, cont.

ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH CODE	CONNECTOR SHELL SIZE SE - II / I	CABLE RANGE				L (MAX)		Y (MAX)			
				MIN		MAX		INCH	MM	INCH	MM		
				INCH	MM	INCH	MM						
18	03	STD.	18 / 19	0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92		
		A						2.53	64.26				
		B						3.53	89.66				
	04	STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46		
		A						2.53	64.26				
		B						3.53	89.66				
	05	STD.		0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75		
		A						2.53	64.26				
		B						3.53	89.66				
	06	STD.		0.56	14.27	0.75	19.05	1.53	38.86	1.38	35.05		
		A						2.53	64.26				
		B						3.53	89.66				
	07	STD.		0.69	17.45	0.88	22.23	1.53	38.86	1.50	38.10		
		A						2.53	64.26				
		B						3.53	89.66				
	20	03		STD.	20 / 21	0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
				A						2.53	64.26		
				B						3.53	89.66		
				C						4.53	115.06		
		04		STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
				A						2.53	64.26		
B			3.53	89.66									
C			4.53	115.06									
05		STD.	0.44	11.10		0.63	15.88	1.53	38.86	1.25	31.75		
		A						2.53	64.26				
		B						3.53	89.66				
		C						4.53	115.06				
06		STD.	0.56	14.27		0.75	19.05	1.53	38.86	1.38	35.05		
		A						2.53	64.26				
		B						3.53	89.66				
		C						4.53	115.06				
07		STD.	0.69	17.45		0.88	22.23	1.53	38.86	1.50	38.10		
		A						2.53	64.26				
		B						3.53	89.66				
		C						4.53	115.06				
08		STD.	0.81	20.62		1.00	25.40	1.53	38.86	1.63	41.40		
	A	2.53			64.26								
	B	3.53			89.66								
	C	4.53			115.06								

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4) .5 3 . .84 0

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Non-Environmental EMI/RFI Backshell Straight, Direct Coupling, cont.

Amphenol



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

TABLE-A, cont.

ACCESSORY SHELL SIZE	CLAMP SIZE	LENGTH CODE	CONNECTOR SHELL SIZE SE-II/I	CABLE RANGE				L (MAX)		Y (MAX)	
				MIN		MAX		INCH	MM	INCH	MM
				INCH	MM	INCH	MM				
22	03	STD.	22/23	0.25	6.35	0.38	9.53	1.53	38.86	1.06	26.92
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	04	STD.		0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05	1.53	38.86	1.38	35.05
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23	1.53	38.86	1.50	38.10
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40	1.53	38.86	1.63	41.40
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
09	STD.	0.94	23.80	1.13	28.58	1.53	38.86	1.75	44.45		
	A					2.53	64.26				
	B					3.53	89.66				
	C					4.53	115.06				
24	04	STD.	24/25	0.31	7.92	0.50	12.70	1.53	38.86	1.16	29.46
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	05	STD.		0.44	11.10	0.63	15.88	1.53	38.86	1.25	31.75
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	06	STD.		0.56	14.27	0.75	19.05	1.53	38.86	1.38	35.05
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	07	STD.		0.69	17.45	0.88	22.23	1.53	38.86	1.50	38.10
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	08	STD.		0.81	20.62	1.00	25.40	1.53	38.86	1.63	41.40
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
	09	STD.		0.94	23.80	1.13	28.58	1.53	38.86	1.75	44.45
		A						2.53	64.26		
		B						3.53	89.66		
		C						4.53	115.06		
10	STD.	1.06	26.97	1.25	31.75	1.53	38.86	1.88	47.75		
	A					2.53	64.26				
	B					3.53	89.66				
	C					4.53	115.06				

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

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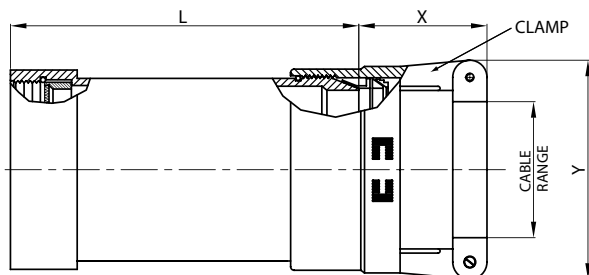
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL Part Number
M85049 / 17 10 W 03 A

MIL Series: M85049
 Slash Sheet: 17: Straight, Direct Coupling
 Shell Size: 10
 Clamp Size: W
 Finish: 03
 Length: A
 See Table-A for Length and Clamp Size.
 See Table-2 (pg. 486) for Finish.

-), 024. 5 - 2 DESIGNATOR		LENGTH	CONNECTOR SHELL SIZE SE - II/I	CABLE RANGE				L (MAX)		X (MAX)		Y (MAX)					
ACCESSORY SHELL SIZE	CLAMP SIZE			MIN		MAX		INCH	MM	INCH	MM	INCH	MM				
				INCH	MM	INCH	MM										
08	01	STD.	8 / 9	0.06	1.57	0.13	3.18	1.53	38.86	1.25	31.75	0.78	19.81				
		A						2.53	64.26								
08	02	STD.	8 / 9	0.13	3.18	0.25	6.35	1.53	38.86	1.25	31.75	0.97	24.64				
		A						2.53	64.26								
10	01	STD.	10 / 11	0.06	1.57	0.13	3.18	1.53	38.86	1.25	31.75	0.78	19.81				
		A						2.53	64.26								
		3.53						89.66									
10	02	STD.	10 / 11	0.13	3.18	0.25	6.35	1.53	38.86	1.25	31.75	0.97	24.64				
		A						2.53	64.26								
		3.53						89.66									
10	03	STD.	10 / 11	0.25	6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92				
		A						2.53	64.26								
		3.53						89.66									
12	02	STD.	12 / 13	0.13	3.18	0.25	6.35	1.53	38.86	1.25	31.75	0.97	24.64				
		A						2.53	64.26								
	03	STD.		12 / 13	0.25	6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92			
		A							2.53	64.26							
12	04	STD.	12 / 13	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46				
		A						2.53	64.26								
	02	STD.		14 / 15	0.13	3.18	0.25	6.35	1.53	38.86	1.25	31.75	0.97	24.64			
		A							2.53	64.26							
03	STD.	14 / 15	0.25		6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92				
	A							2.53	64.26								
04	STD.		14 / 15	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46				
	A							2.53	64.26								
05	STD.	14 / 15		0.50	12.70	0.63	15.88	1.53	38.86	1.31	33.27	1.25	31.75				
	A							2.53	64.26								
16	02		STD.	16 / 17	0.13	3.18	0.25	6.35	1.53	38.86	1.25	31.75	0.97	24.64			
			A						2.53	64.26							
		B	3.53						89.66								
	03	STD.	16 / 17		0.25	6.35	0.38	9.53	9.53	1.53	38.86	1.25	31.75	1.06	26.92		
		A								2.53	64.26						
		B								3.53	89.66						
	04	STD.			16 / 17	0.38	9.53	0.50	12.70	12.70	1.53	38.86	1.25	31.75	1.16	29.46	
		A									2.53	64.26					
		B									3.53	89.66					
	05	STD.				16 / 17	0.50	12.70	0.63	15.88	15.88	1.53	38.86	1.31	33.27	1.25	31.75
		A										2.53	64.26				
		B										3.53	89.66				
06	STD.	16 / 17		0.63			15.88	0.75	19.05	19.05	1.53	38.86	1.38	35.05	1.38	35.05	
	A										2.53	64.26					
	B										3.53	89.66					

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4) .5 3 . .84 0



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

TABLE - A, cont.

DESIGNATOR -), 024.5 - 2		CONNECTOR SHELL SIZE SE - II/I	LENGTH	CABLE RANGE				L (MAX)		X (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE			MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
18	03	18 / 19	STD.	0.25	6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92
			A					2.53	64.26				
			B					3.53	89.66				
	04		STD.	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46
			A					2.53	64.26				
			B					3.53	89.66				
	05		STD.	0.50	12.70	0.63	15.88	1.53	38.86	1.31	33.27	1.25	31.75
			A					2.53	64.26				
			B					3.53	89.66				
	06		STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.38	35.05
			A					2.53	64.26				
			B					3.53	89.66				
07	STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10		
	A					2.53	64.26						
	B					3.53	89.66						
20	03	20 / 21	STD.	0.25	6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	04		STD.	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	05		STD.	0.50	12.70	0.63	15.88	1.53	38.86	1.31	33.27	1.25	31.75
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	06		STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.38	35.05
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	07		STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	08		STD.	0.88	22.23	1.00	25.40	1.53	38.86	1.63	41.40	1.63	41.40
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
22	03	22 / 23	STD.	0.25	6.35	0.38	9.53	1.53	38.86	1.25	31.75	1.06	26.92
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	04		STD.	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	05		STD.	0.50	12.70	0.63	15.88	1.53	38.86	1.31	33.27	1.25	31.75
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	06		STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.38	35.05
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

4, .4).53 . .84 0

38999



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I

TABLE - A, cont.													
-), 02 4. 5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE SE - II / I	LENGTH	CABLE RANGE				L (MAX)		X (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE			MIN		MAX		INCH	MM	INCH	MM	INCH	MM
				INCH	MM	INCH	MM						
22, cont.	07	22 / 23	STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	08		STD.	0.88	22.23	1.00	25.40	1.53	38.86	1.63	41.40	1.63	41.40
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
	09		STD.	1.00	25.40	1.13	28.58	1.53	38.86	1.63	41.40	1.75	44.45
			A					2.53	64.26				
			B					3.53	89.66				
			C					4.53	115.06				
24	04	STD.	0.38	9.53	0.50	12.70	1.53	38.86	1.25	31.75	1.16	29.46	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
	05	STD.	0.50	12.70	0.63	15.88	1.53	38.86	1.31	33.27	1.25	31.75	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
	06	STD.	0.63	15.88	0.75	19.05	1.53	38.86	1.38	35.05	1.38	35.05	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
	07	STD.	0.75	19.05	0.88	22.23	1.53	38.86	1.50	38.10	1.50	38.10	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
	08	STD.	0.88	22.23	1.00	25.40	1.53	38.86	1.63	41.40	1.63	41.40	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
	09	STD.	1.00	25.40	1.13	28.58	1.53	38.86	1.63	41.40	1.75	44.45	
		A					2.53	64.26					
		B					3.53	89.66					
		C					4.53	115.06					
10	STD.	1.13	28.58	1.25	31.75	1.53	38.86	1.63	41.40	1.88	47.75		
	A					2.53	64.26						
	B					3.53	89.66						
	C					4.53	115.06						

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

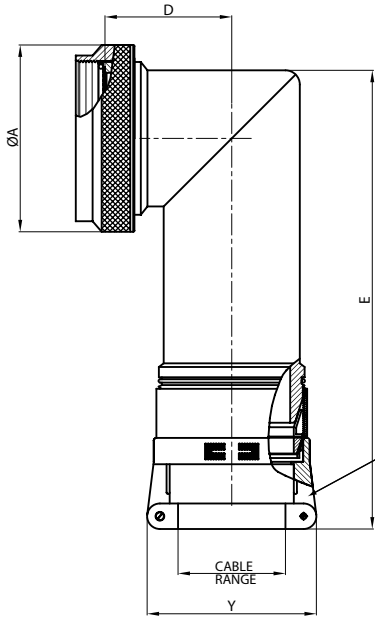
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others



38999 Series II

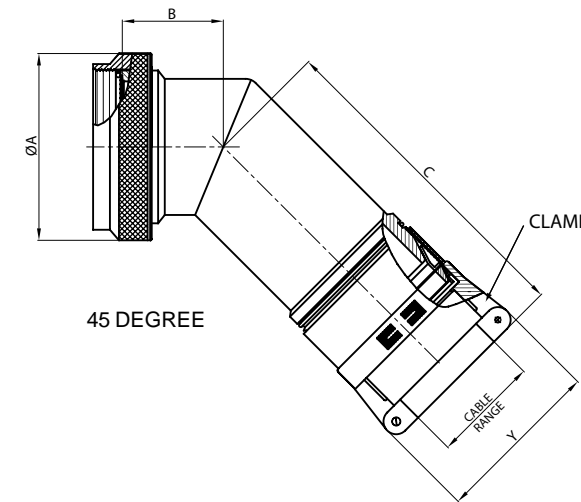
38999 Series I

MIL-DTL-38999 Series II and Series I



90 DEGREE

CLAMP



45 DEGREE

CLAMP

MIL Part Number
M85049 / 76 10 W 01

MIL Series: M85049 / 76
 Slash Sheet: 10
 Shell Size: W
 Clamp Size: 01
 Finish: See Table-B (pg. 486)

TABLE - B

-), 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE SE - II / I	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)	
ACCESSORY SHELL SIZE	CLAMP SIZE		MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
			INCH	MM	INCH	MM												
08	01	8 / 9	0.06	1.57	0.13	3.18	0.75	19.05	0.46	11.68	3.15	80.01	0.69	17.53	3.46	87.88	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
10	01	10 / 11	0.06	1.57	0.13	3.18	0.85	21.59	0.52	13.21	3.21	81.53	0.78	19.81	3.58	90.93	0.80	20.32
	02		0.13	3.18	0.25	6.35											1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
12	02	12 / 13	0.13	3.18	0.25	6.35	1.00	25.40	0.58	14.73	3.27	83.06	0.80	20.32	3.60	91.44	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
14	02	14 / 15	0.13	3.18	0.25	6.35	1.15	29.21	0.65	16.51	3.36	85.34	0.88	22.35	3.67	93.22	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
16	02	16 / 17	0.13	3.18	0.25	6.35	1.25	31.75	0.74	18.80	3.47	88.14	0.93	23.62	3.76	95.50	1.00	25.40
	03		0.25	6.35	0.38	9.53											1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
18	03	18 / 19	0.25	6.35	0.38	9.53	1.40	35.56	0.93	23.62	3.66	92.96	1.01	25.65	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

4, .4).53 . .84 0

email: sales@backshellworld.com

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

TABLE - B

ACCESSORY SHELL SIZE	CLAMP SIZE	CONNECTOR SHELL SIZE SE - II / I	CABLE RANGE				A DIA. (MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		Y (MAX)	
			MIN		MAX		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
			INCH	MM	INCH	MM												
20	03	20 / 21	0.25	6.35	0.38	9.53	1.55	39.37	0.93	23.62	3.66	92.96	1.06	26.92	3.93	99.82	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
22	03	22 / 23	0.25	6.35	0.38	9.53	1.65	41.91	1.02	25.91	3.81	96.77	1.17	29.72	4.04	102.62	1.10	27.94
	04		0.38	9.53	0.50	12.70											1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
24	04	24 / 25	0.38	9.53	0.50	12.70	1.85	46.99	1.02	25.91	3.81	96.77	1.18	29.97	4.04	102.62	1.20	30.48
	05		0.50	12.70	0.63	15.88											1.25	31.75
	06		0.63	15.88	0.75	19.05											1.40	35.56
	07		0.75	19.05	0.88	22.23											1.50	38.10
	08		0.88	22.23	1.00	25.40											1.65	41.91
	09		1.00	25.40	1.13	28.58											1.75	44.45
10	1.13	28.58	1.25	31.75	1.90	48.26												

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

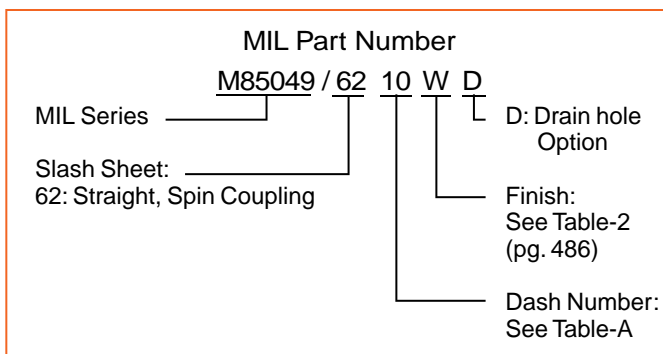
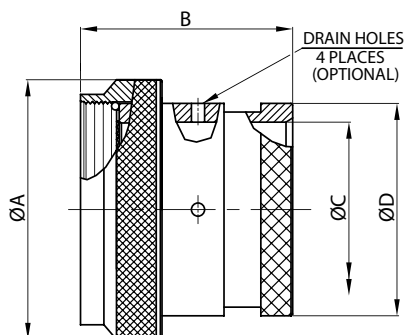
Shrink Boot Adapter Straight, Spin Coupling



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SE - II/I	A DIA. (MAX)		B (MAX)		C DIA. (MIN)		D DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
DASH NO. 08	8 / 9	0.75	19.05	1.00	25.40	0.25	6.35	0.53	13.54
10	10 / 11	0.85	21.59	1.00	25.40	0.38	9.53	0.61	15.37
12	12 / 13	1.00	25.40	1.00	25.40	0.50	12.70	0.77	19.66
14	14 / 15	1.10	27.94	1.00	25.40	0.63	15.88	0.84	21.29
16	16 / 17	1.25	31.75	1.00	25.40	0.75	19.05	0.94	23.77
18	18 / 19	1.40	35.56	1.00	25.40	0.81	20.62	1.04	26.47
20	20 / 21	1.50	38.10	1.00	25.40	0.94	23.80	1.22	30.91
22	22 / 23	1.65	41.91	1.00	25.40	1.06	26.97	1.36	34.42
24	24 / 25	1.75	44.45	1.00	25.40	1.19	30.18	1.44	36.65

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

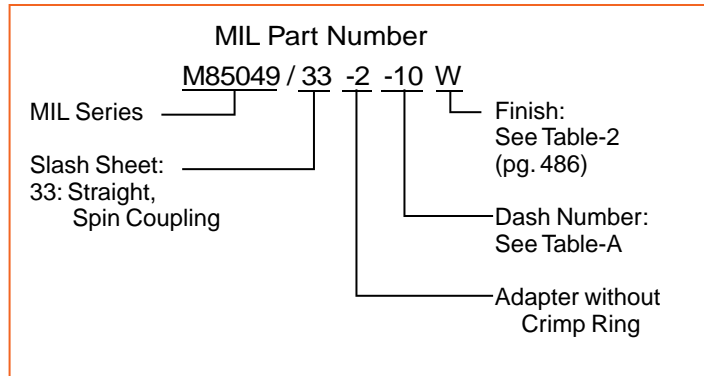
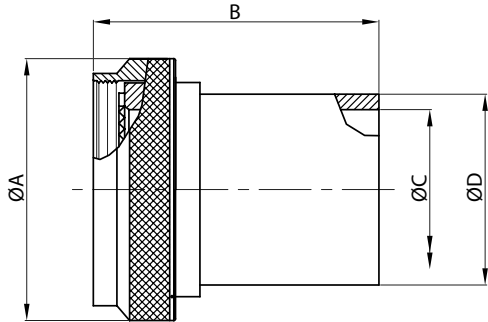
Options
Others



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



Refer to page 544 for ordering details of ring.

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SE - II/I	A DIA.(MAX)		B (MAX)		C DIA.(MAX)		D DIA.(MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
DASH NO									
08	8 / 9	0.75	19.05	1.14	28.96	0.27	6.86	0.35	8.89
10	10 / 11	0.85	21.59	1.14	28.96	0.34	8.64	0.50	12.70
12	12 / 13	1.00	25.40	1.14	28.96	0.44	11.18	0.51	12.95
14	14 / 15	1.10	27.94	1.14	28.96	0.56	14.22	0.63	16.00
16	16 / 17	1.25	31.75	1.14	28.96	0.69	17.53	0.76	19.30
18	18 / 19	1.40	35.56	1.14	28.96	0.80	20.32	0.89	22.61
20	20 / 21	1.50	38.10	1.14	28.96	0.93	23.62	1.01	25.65
22	22 / 23	1.65	41.91	1.14	28.96	1.05	26.67	1.13	28.70
24	24 / 25	1.75	44.45	1.14	28.96	1.13	28.70	1.20	30.48

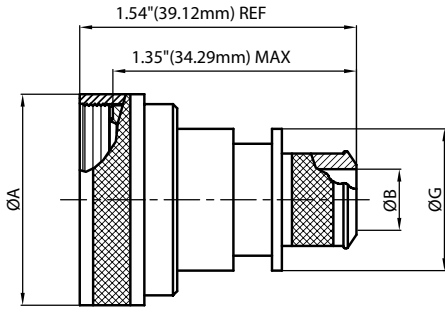
Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.



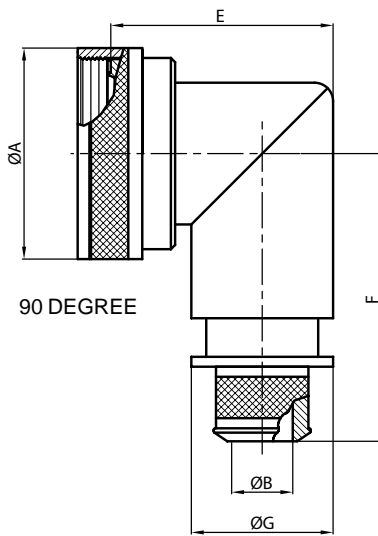
38999 Series II

38999 Series I

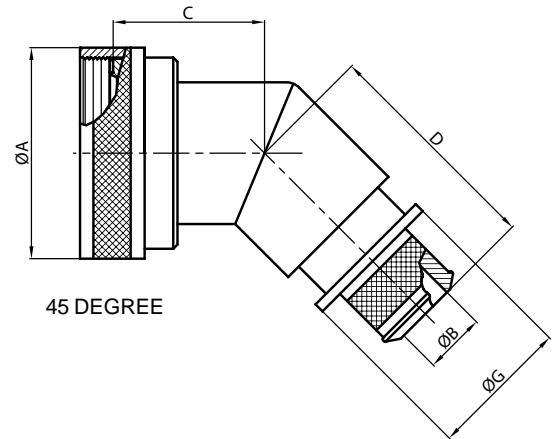
MIL-DTL-38999 Series II and Series I



STRAIGHT



90 DEGREE



45 DEGREE

MIL Part Number

M85049 / 85 -10 W 02

MIL Series: M85049 / 85
 Slash Sheet: 85: Straight, Self-Lock
 Entry Size: See Table-A
 Finish: See Table-2 (pg. 486)
 Shell Size: See Table-A

-, 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE SE - II / I	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX.)		G MAX	
ACCESSORY SHELL SIZE	ENTRY SIZE		INCH	MM	+0.00	+0.00	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
					-0.02	-0.50										
08	03	8 / 9	0.86	21.82	0.26	6.60	0.87	22.10	1.16	29.46	1.38	34.93	1.42	35.99	0.56	14.22
10	03	10 / 11	0.99	25.04	0.32	8.13	0.90	22.86	1.19	30.23	1.44	36.50	1.48	37.59	0.63	16.00
12	02	12 / 13	1.16	29.36	0.32	8.13	0.92	23.37	1.21	30.73	1.56	39.67	1.55	39.45	0.63	16.00
	03				0.45	11.43									0.75	19.05
14	02	14 / 15	1.28	32.54	0.45	11.43	0.95	24.13	1.24	31.50	1.69	42.85	1.61	41.00	0.75	19.05
	03				0.57	14.48									0.89	22.61
16	02	16 / 17	1.41	35.71	0.51	12.95	0.98	24.89	1.26	32.00	1.75	44.45	1.68	42.62	0.82	20.83
	03				0.64	16.26									0.95	24.13
18	02	18 / 19	1.52	38.51	0.64	16.26	0.98	24.89	1.27	32.26	1.88	47.63	1.73	44.02	0.95	24.13
	03				0.76	19.30									1.07	27.18
20	02	20 / 21	1.64	41.68	0.64	16.26	1.01	25.65	1.30	33.02	1.94	49.23	1.80	45.62	0.95	24.13
	03				0.82	20.83									1.13	28.07
22	02	22 / 23	1.77	44.86	0.70	17.78	1.04	26.42	1.33	33.78	2.06	52.37	1.86	47.22	1.02	25.99
	03				0.95	24.13									1.26	32.00
24	02	24 / 25	1.89	48.03	0.76	19.30	1.07	27.18	1.35	34.29	2.13	53.98	1.92	48.74	1.07	27.18
	03				1.01	25.65									1.32	33.53

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482
- Matrix 2
- 83723
- III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear
- Release
- Matrix

- 22992
- Class 1

- Back-
- Shells

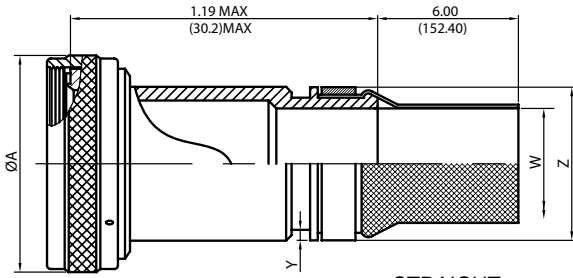
- Options
- Others



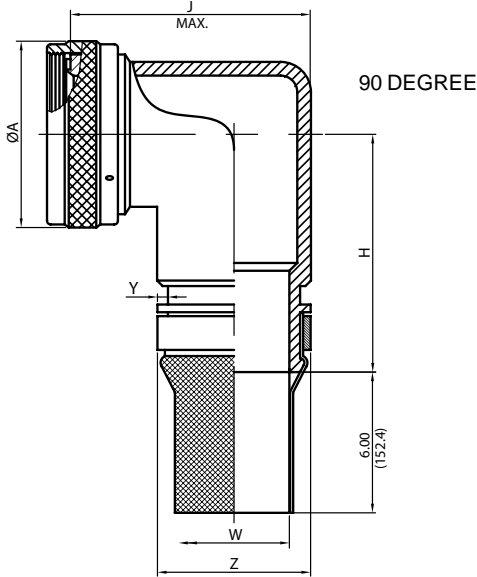
38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



STRAIGHT



90 DEGREE

MIL Part Number

M85049 / 112 - 10 T W 03 -6 D

MIL Series: M85049 / 112
 Slash Sheet: 112: Straight
 Coupling: -: Spin Coupling, S: Self-Lock
 Shell Size: See Table-A
 Entry Size: See Table-A & B
 Finish: See Table-2 (pg. 486)
 Shield Finish: (Material: Copper) +~~0~~
 T: Tin
 Drain Hole Option
 Shield Length: 6 inches min. 18 inches max. 1 inch increments 6: 6 inch, 7: 7 inch, so on

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

-), 024.5 - 2 DESIGNATOR			CONNECTOR SHELL SIZE SE - II / I	A DIA. (MAX)		H (MAX)		* - 8	
ACCESSORY SHELL SIZE	ALLOWABLE ENTRY SIZE			INCH	MM	INCH	MM	INCH	MM
		MIN	MAX						
08	-	01	8/9	0.860	21.84	1.73	43.94	1.07	27.18
10	01	03	10/11	0.980	24.89	1.85	46.99	1.19	30.23
12	01	05	12/13	1.160	29.46	1.87	47.50	1.32	33.53
14	03	07	14/15	1.280	32.51	1.94	49.28	1.44	36.58
16	05	09	16/17	1.410	35.81	2.03	51.56	1.57	39.88
18	06	10	18/19	1.520	38.61	2.20	55.88	1.75	44.45
20	08	12	20/21	1.640	41.66	2.20	55.88	1.75	44.45
22	09	13	22/23	1.770	44.96	2.31	58.67	2.00	50.80
24	10	14	24/25	1.890	48.01	2.31	58.67	2.00	50.80

ENTRY SIZE	W	W	Y	Y	Z	Z
	±0.020	±0.508	+0.008	+0.200	MAX	MAX
	INCH	MM	-0.000	-0.000	INCH	MM
01	0.250	6.350	0.044	1.12	0.56	14.22
02	0.312	7.920	0.044	1.12	0.63	16.00
03	0.375	9.530	0.044	1.12	0.69	17.53
04	0.438	11.130	0.044	1.12	0.75	19.05
05	0.500	12.700	0.044	1.12	0.82	20.83
06	0.562	14.270	0.044	1.12	0.89	22.61
07	0.625	15.880	0.044	1.12	0.95	24.13
08	0.688	17.480	0.044	1.12	1.02	25.91
09	0.750	19.050	0.069	1.75	1.07	27.18
10	0.812	20.620	0.069	1.75	1.13	28.70
11	0.875	22.230	0.069	1.75	1.19	30.23
12	0.938	23.830	0.069	1.75	1.26	32.00
13	1.000	25.400	0.069	1.75	1.32	33.53
14	1.125	28.575	0.069	1.75	1.47	37.34

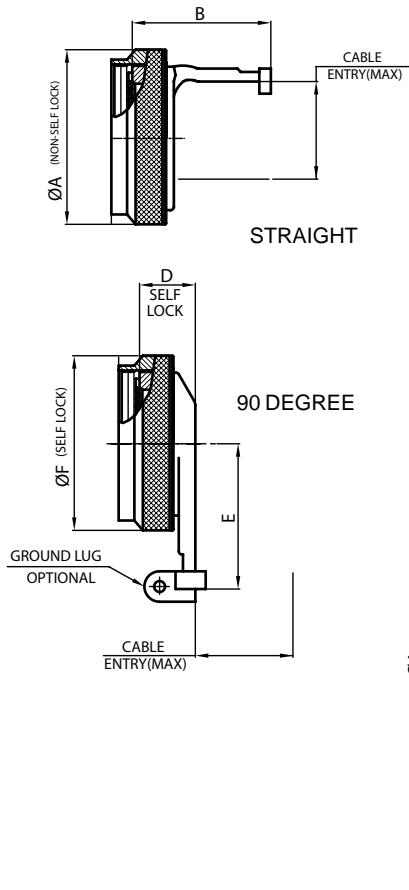
Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL Part Number

M85049 / 56 - 10 W

MIL Series: M85049 / 56
 Slash Sheet: 56: Straight
 Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A
 Coupling: ~~38999~~AD
 G: Self-Lock with ~~38999~~AD
 -: Non Self-Lock

TABLE - A

-), 024.5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE SE - II / I	A DIA.(MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		F DIA.(MAX)		CABLE ENTRY MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	8 / 9	0.66	16.69	0.95	24.23	1.23	31.29	0.73	18.54	1.22	30.99	0.89	22.48	0.26	6.60
10	10 / 11	0.78	19.86	0.95	24.23	1.23	31.29	0.73	18.54	1.29	32.77	1.01	25.65	0.37	9.27
12	12 / 13	0.94	23.80	0.95	24.23	1.23	31.29	0.73	18.54	1.62	41.15	1.14	28.83	0.50	12.73
14	14 / 15	1.05	26.67	1.20	30.58	1.23	31.29	0.73	18.54	1.66	42.16	1.26	32.00	0.58	14.61
16	16 / 17	1.24	31.47	1.20	30.58	1.23	31.29	0.73	18.54	1.72	43.69	1.39	35.18	0.70	17.78
18	18 / 19	1.38	35.00	1.20	30.58	1.23	31.29	0.73	18.54	1.72	43.69	1.51	38.35	0.78	19.79
20	20 / 21	1.50	38.10	1.31	33.27	1.48	37.64	0.75	19.05	1.79	45.47	1.64	41.53	0.90	22.96
22	22 / 23	1.63	41.43	1.43	36.32	1.48	37.64	0.75	19.05	1.85	46.99	1.76	44.70	1.03	26.14
24	24 / 25	1.75	44.45	1.56	39.62	1.48	37.64	0.75	19.05	1.91	48.51	1.89	47.88	1.14	29.06

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix
- 22992 Class I

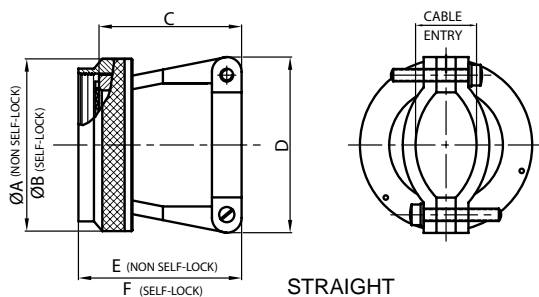
- Back-Shells
- Options Others



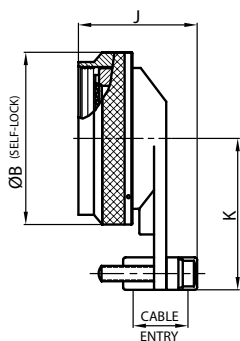
38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



STRAIGHT



90 DEGREE

MIL Part Number

M85049 / 47 - 10 W

MIL Series: M85049 / 47
 Slash Sheet: 49-2: Straight
 Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A
 Coupling: S: Self-Lock, -: Non Self-Lock

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE SE - II / I	A DIA.(MAX)		B DIA.(MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
DASH NO.													
08	8 / 9	0.75	19.05	0.86	21.82	0.91	23.11	0.85	21.59	1.10	27.94	1.15	29.21
10	10 / 11	0.85	21.59	0.98	24.99	0.91	23.11	0.90	22.86	1.10	27.94	1.15	29.21
12	12 / 13	1.00	25.40	1.16	29.36	1.01	25.65	1.10	27.94	1.20	30.48	1.25	31.75
14	14 / 15	1.10	27.94	1.28	32.54	1.06	26.92	1.15	29.21	1.25	31.75	1.30	33.02
16	16 / 17	1.25	31.75	1.41	35.71	1.16	29.46	1.30	33.02	1.36	34.44	1.40	35.56
18	18 / 19	1.40	35.56	1.52	38.51	1.41	35.81	1.50	38.10	1.60	40.64	1.65	41.91
20	20 / 21	1.50	38.10	1.64	41.68	1.51	38.35	1.60	40.64	1.70	43.21	1.75	44.45
24	22 / 23	1.65	41.91	1.77	44.86	1.66	42.16	1.70	43.18	1.85	46.99	1.90	48.26
24	24 / 25	1.75	44.45	1.89	48.03	1.76	44.70	1.80	45.72	1.95	49.56	2.00	50.80

TABLE - A, cont.

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE SE - II / I	CABLE ENTRY							
		* - 8		+ - 8					
		MIN		MAX					
DASH NO.		INCH	MM	INCH	MM	INCH	MM	INCH	MM
08	8 / 9	1.38	35.05	1.00	25.40	0.10	2.49	0.23	5.94
10	10 / 11	1.38	35.05	1.10	27.94	0.15	3.89	0.23	5.94
12	12 / 13	1.46	37.08	1.10	27.94	0.19	4.83	0.33	8.33
14	14 / 15	1.63	41.40	1.25	31.75	0.26	6.60	0.46	11.61
16	16 / 17	1.80	45.72	1.30	33.02	0.28	7.19	0.61	15.60
18	18 / 19	1.82	46.23	1.35	34.29	0.33	8.26	0.63	16.10
20	20 / 21	1.90	48.26	1.60	40.64	0.34	8.71	0.70	17.73
22	22 / 23	2.04	51.82	1.75	44.45	0.38	9.68	0.82	20.90
24	24 / 25	2.15	54.61	1.85	46.99	0.42	10.62	0.85	21.67

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

Strain Relief Clamp

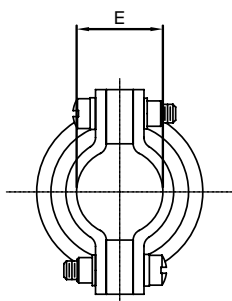
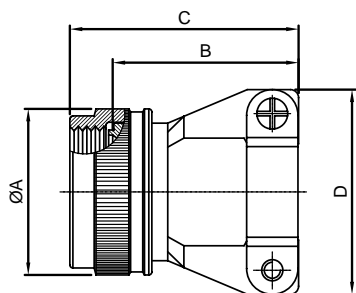
Straight, Self-Lock/Non Self-Lock



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



MIL Part Number

M85049 / 121 - 10 W

MIL Series ——— M85049 / 121

Slash Sheet: 121: Straight

Finish: See Table-2 (pg. 486)

Dash Number: See Table-A

Coupling: S: Self-Lock
-: Non Self-Lock

TABLE - A

MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SE - II / I	A DIA.(MAX)		B LENGTH		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
08	08	0.86	21.79	0.77/0.51	19.56/12.95	1.01	25.65	0.88	22.35	0.22	5.56
10	10	0.98	24.99	0.89/0.64	22.61/16.26	1.13	28.70	0.94	23.88	0.26	6.71
12	12	1.16	29.39	1.01/0.76	25.65/19.30	1.25	31.75	1.12	28.45	0.34	8.74
14	14	1.28	32.49	1.01/0.76	25.65/19.30	1.25	31.75	1.19	30.23	0.46	11.68
16	16	1.41	35.71	1.13/0.88	28.70/22.35	1.37	34.80	1.44	36.58	0.55	13.84
18	18	1.52	38.51	1.38/1.13	35.05/28.70	1.62	41.15	1.56	39.62	0.62	15.62
20	20	1.64	41.71	1.51/1.25	38.35/31.75	1.75	44.45	1.69	42.93	0.69	17.53
22	22	1.77	44.91	1.62/1.38	41.15/35.05	1.87	47.50	1.75	44.45	0.78	19.81
24	24	1.87	47.47	1.76/1.51	44.70/38.35	2.00	50.80	1.88	47.75	0.85	21.59

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

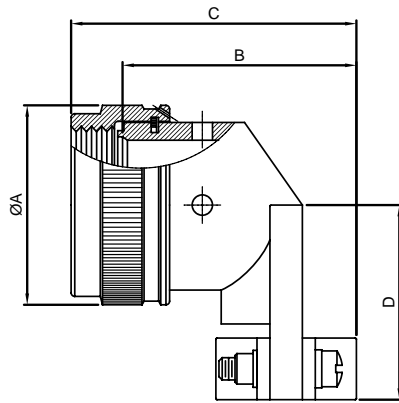
Options Others



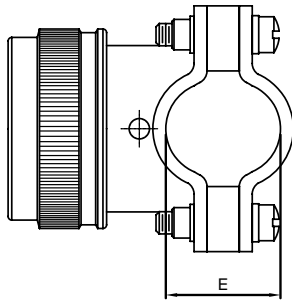
38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



90 DEGREE



MIL Part Number

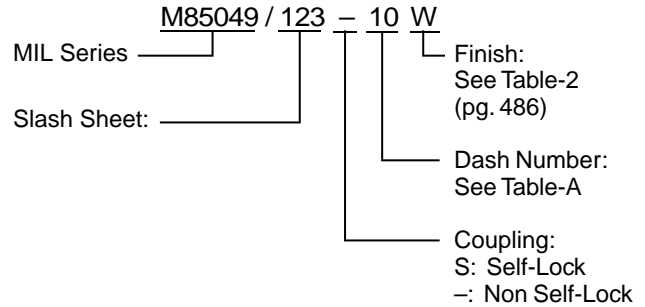


TABLE - A											
MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SE - II/I	A DIA.(MAX)		B (MAX)		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
DASH NO											
08	08	0.86	21.79	0.86	21.84	1.10	27.94	0.81	20.57	0.22	5.56
10	10	0.98	24.99	0.94	23.88	1.18	29.97	0.87	22.10	0.26	6.71
12	12	1.16	29.39	1.14	28.96	1.38	35.05	0.93	23.62	0.34	8.74
14	14	1.28	32.49	1.20	30.48	1.44	36.58	0.99	25.15	0.46	11.68
16	16	1.41	35.71	1.34	34.04	1.58	40.13	1.06	26.92	0.55	13.84
18	18	1.52	38.51	1.46	37.08	1.70	43.18	1.23	31.24	0.62	15.62
20	20	1.64	41.71	1.58	40.13	1.82	46.23	1.30	33.02	0.70	17.73
22	22	1.77	44.91	1.71	43.43	1.95	49.53	1.36	34.54	0.78	19.81
24	24	1.87	47.47	1.83	46.48	2.07	52.58	1.42	36.07	0.85	21.59

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release
- Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

Grommet Nut

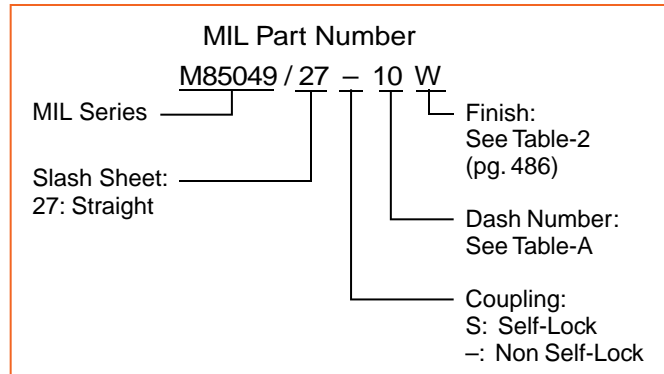
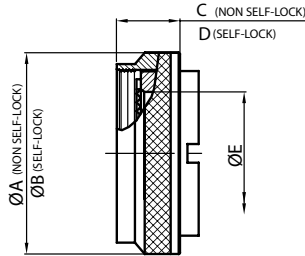
Straight, Self-Lock/Non Self-Lock



38999 Series II

38999 Series I

MIL-DTL-38999 Series II and Series I



Note: * Slot shown in figure is optional for Non Self-Lock

TABLE-A											
MIL PART NUMBER DESIGNATOR	CONNECTOR SHELL SIZE SE - II / I	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
DASH NO.											
08	8 / 9	0.75	19.05	0.86	21.82	0.54	13.72	0.59	14.99	0.27	6.86
10	10 / 11	0.85	21.59	0.98	24.99	0.54	13.72	0.59	14.99	0.41	10.41
12	12 / 13	1.00	25.40	1.16	29.36	0.54	13.72	0.59	14.99	0.53	13.46
14	14 / 15	1.10	27.94	1.28	32.54	0.54	13.72	0.59	14.99	0.65	16.51
16	16 / 17	1.25	31.75	1.41	35.71	0.54	13.72	0.59	14.99	0.78	19.81
18	18 / 19	1.40	35.56	1.52	38.51	0.54	13.72	0.59	14.99	0.88	22.35
20	20 / 21	1.50	38.10	1.64	41.68	0.54	13.72	0.59	14.99	1.01	25.65
22	22 / 23	1.65	41.91	1.77	44.86	0.54	13.72	0.59	14.99	1.13	28.70
24	24 / 25	1.75	44.45	1.89	48.03	0.54	13.72	0.59	14.99	1.26	32.00

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

38999

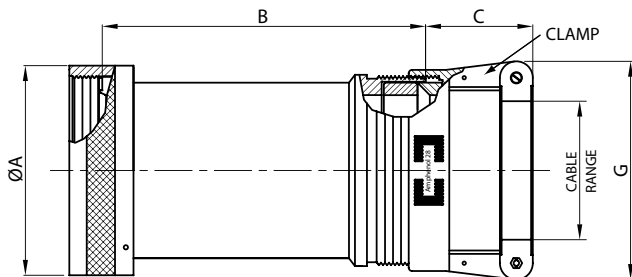
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III

MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



MIL Part Number
M85049 / 11 -10 W

MIL Series: M85049 / 11
Finish: See Table-2 (pg. 486)
Dash Number: See Table-A

Slash Sheet:
11: Straight, Spin Coupling

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others

-, 02 4. 5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
										INCH	MM	INCH	MM	
08	05	8	0.62	15.67	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.25	6.35
	06		0.62	15.67	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.25	6.35
	07*		0.62	15.67	2.88	73.15	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	08*		0.62	15.67	3.88	98.55	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
10	09	10	0.73	18.64	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	10		0.73	18.64	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	11*		0.73	18.64	2.88	73.15	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	12*		0.73	18.64	3.88	98.55	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	136		0.73	18.64	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.38	9.53
12	137	7/12	0.73	18.64	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.38	9.53
	13		0.86	21.79	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	14		0.86	21.79	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	15*		0.86	21.79	2.88	73.15	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	16*		0.86	21.79	3.88	98.55	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	111		0.86	21.79	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	114		0.86	21.79	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	115		0.86	21.79	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
14	138	12/14	0.86	21.79	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	139		0.86	21.79	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	17		0.98	24.99	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.58	14.61
	18		0.98	24.99	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.58	14.61
	19*		0.98	24.99	2.88	73.15	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	20*		0.98	24.99	3.88	98.55	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	116		0.98	24.99	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	117		0.98	24.99	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
16	150	19/16	0.98	24.99	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	151		0.98	24.99	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	21		1.11	28.24	2.13	54.10	1.06	26.90	1.55	39.40	0.50	12.70	0.70	17.78
	22		1.11	28.24	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.70	17.78
	23*		1.11	28.24	2.88	73.15	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	24*		1.11	28.24	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
112	112	19/16	1.11	28.24	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	113		1.11	28.24	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10

* Denotes Style-2 (see page 486)
For more cable entry and length options see page 486 or email: sales@backshellworld.com
All dimensions for reference only.



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

TABLE - A

-.024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE					
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE			
SHELL SIZE	DASH NO															
16, cont.	118	19/16	1.11	28.24	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	119		1.11	28.24	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	152		1.11	28.24	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
	153		1.11	28.24	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
18	25	27/18	1.22	30.94	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	26		1.22	30.94	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	27		1.22	30.94	2.13	54.10	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	28		1.22	30.94	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	29*		1.22	30.94	2.88	73.15	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	30*		1.22	30.94	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	120		1.22	30.94	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
	121		1.22	30.94	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
	122		1.22	30.94	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
	123		1.22	30.94	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
20	31	37/20	1.35	34.16	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	32		1.35	34.16	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	33		1.35	34.16	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	34		1.35	34.16	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	35*		1.35	34.16	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	36*		1.35	34.16	4.88	123.95	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	37*		1.35	34.16	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	38*		1.35	34.16	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	124		1.35	34.16	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
	125		1.35	34.16	4.13	104.90	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
	140		1.35	34.16	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.90	22.96		
141	1.35	34.16	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.90	22.96				
22	39	22	1.47	37.29	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	40		1.47	37.29	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	41		1.47	37.29	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	42		1.47	37.29	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	43		1.47	37.29	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	44		1.47	37.29	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	45*		1.47	37.29	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	46*		1.47	37.29	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	126		1.47	37.29	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
	127		1.47	37.29	4.13	104.90	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92		
	128		1.47	37.29	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
	129		1.47	37.29	4.13	104.90	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
	142		1.47	37.29	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.03	26.14		
	143		1.47	37.29	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.03	26.14		
24	47	24	1.59	40.46	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	48		1.59	40.46	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05		
	49		1.59	40.46	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.81	20.62		
	50		1.59	40.46	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.81	20.62		
	51		1.59	40.46	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	52		1.59	40.46	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
	53*		1.59	40.46	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	54*		1.59	40.46	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75		
	130		1.59	40.46	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	131		1.59	40.46	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88		
	144		1.59	40.46	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.14	29.06		
	145		1.59	40.46	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.14	29.06		
	28		55	28	1.97	50.01	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
			56		1.97	50.01	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
57		1.97	50.01		3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		
58		1.97	50.01		4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80		

* Denotes Style-2 (see page 486). For more cable entry and length options see page 486 or email: sales@backshellworld.com.
All dimensions for reference only.

TABLE
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- HD
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26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

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- 83723 III Matrix (Pyle)
- 26500 Pyle
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-,024.5- 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE - A											
			A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
			SHELL SIZE	DASH NO	INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE
INCH	MM	INCH											MM	
28, cont.	59	28	1.97	50.01	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	60		1.97	50.01	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	61		1.97	50.01	3.13	79.50	1.50	38.10	23.63	600.20	1.00	25.40	1.38	34.93
	62		1.97	50.01	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	63		2.22	56.36	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
32	64	32	2.22	56.36	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	65		2.22	56.36	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	66		2.22	56.36	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	67		2.22	56.36	3.13	79.50	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	68		2.22	56.36	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	69		2.22	56.36	3.13	79.50	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	70		2.22	56.36	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	71		2.47	62.71	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
36	72	36	2.47	62.71	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	73		2.47	62.71	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	74		2.47	62.71	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	75		2.47	62.71	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	76		2.47	62.71	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	77*		2.47	62.71	5.01	127.25	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	78*		2.47	62.71	6.01	152.65	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	132		2.47	62.71	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	133		2.47	62.71	5.13	130.30	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	146		2.47	62.71	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.84	46.74
40	147	40	2.47	62.71	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.84	46.74
	148		2.47	62.71	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	149		2.47	62.71	5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	79		2.72	69.06	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	80		2.72	69.06	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	81		2.72	69.06	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	82		2.72	69.06	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	83		2.72	69.06	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	84		2.72	69.06	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	85		2.72	69.06	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	86		2.72	69.06	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	134		2.72	69.06	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	135		2.72	69.06	5.13	130.30	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	156		2.72	69.06	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	157		2.72	69.06	5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
44	87	44	2.97	75.41	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	88		2.97	75.41	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	89		2.97	75.41	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	90		2.97	75.41	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	91		2.97	75.41	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	92		2.97	75.41	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	93		2.97	75.41	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	94		2.97	75.41	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
48	154	48	2.97	75.41	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	155		2.97	75.41	5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	95		3.22	81.76	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	96		3.22	81.76	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	97		3.22	81.76	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	98		3.22	81.76	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	99		3.22	81.76	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	100		3.22	81.76	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
101	3.22	81.76	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63		
	3.22	81.76	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63		
102	3.22	81.76	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63		

All dimensions for reference only.

* Denotes Style-2 (see page 486). For more cable entry and length options see page 486 or email: sales@backshellworld.com.



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Cramp Rear Release Matrix

22992
Class 1

Back-Shell

Options
Others

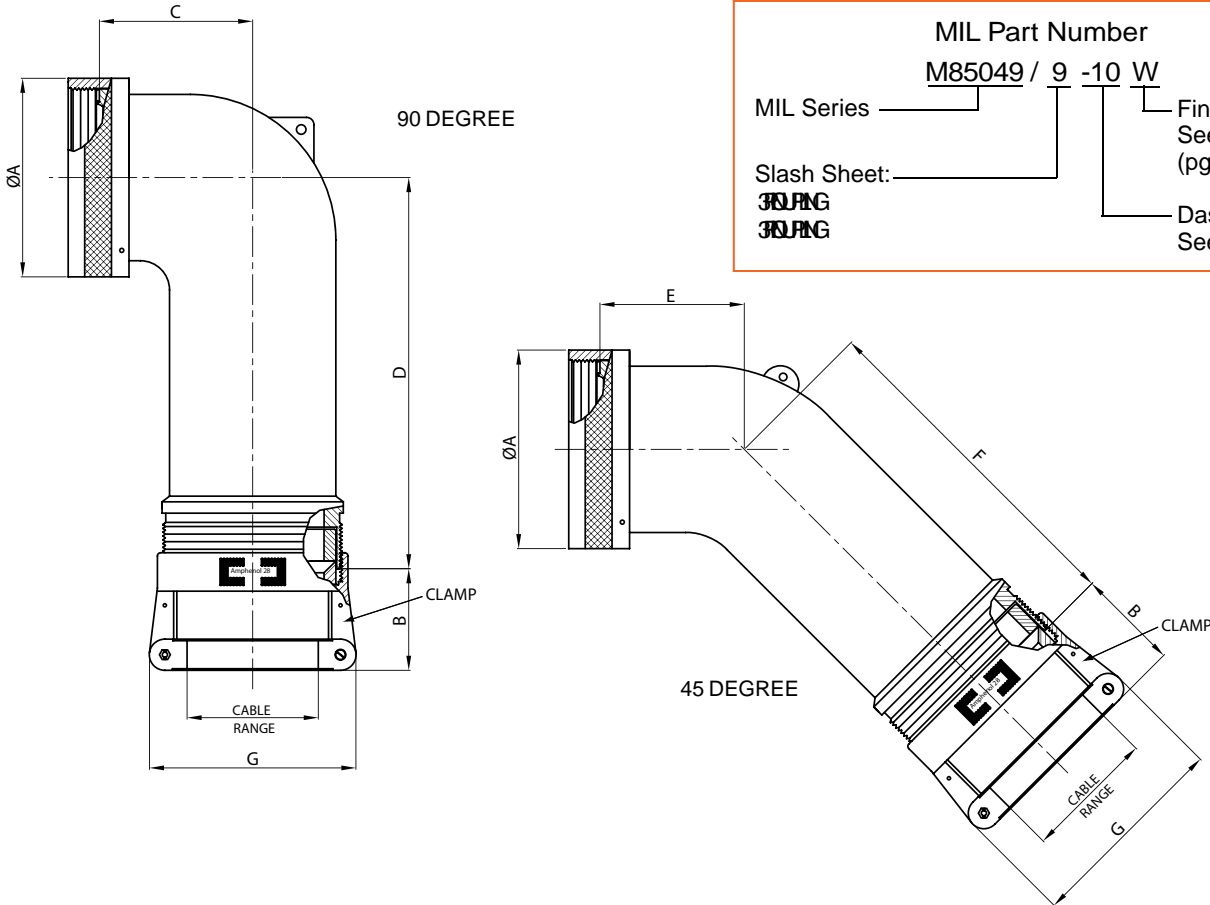


TABLE - A

MIL PART .5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (REF)		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE RANGE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE	MAX WIRE		
08	3	8	0.62	15.67	1.03	26.09	0.67	17.02	1.26	32.00	0.63	16.00	1.25	31.75	0.96	24.31	0.13	3.18	0.25	6.35
	4		0.73	18.64	1.03	26.09	0.76	19.30	1.98	50.29	0.69	17.53	1.92	48.77	0.96	24.31	0.13	3.18	0.31	7.92
10	49*	10	0.73	18.64	1.03	26.09	1.52	38.61	2.00	50.80	1.50	38.10	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
	5		0.73	18.64	1.03	26.09	0.76	19.30	1.38	35.05	0.69	17.53	1.31	33.27	1.15	29.08	0.25	6.35	0.38	9.53
12	6	7/12	0.86	21.79	1.03	26.09	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	0.96	24.31	0.13	3.18	0.31	7.92
	71*		0.86	21.79	1.03	26.09	1.81	45.97	2.16	54.86	1.65	41.91	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
	7		0.86	21.79	1.03	26.09	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
	8		0.86	21.79	1.03	26.09	0.77	19.56	1.40	35.56	0.75	19.05	1.98	50.29	1.33	33.83	0.35	8.89	0.50	12.70
14	9	12/14	0.98	24.99	1.03	26.09	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	1.15	29.08	0.25	6.35	0.44	11.10
	10		0.98	24.99	1.03	26.09	0.87	22.10	1.72	43.69	0.81	20.57	1.72	43.69	1.33	33.83	0.35	8.89	0.58	14.61
	50*		0.98	24.99	1.06	26.90	1.89	48.01	2.33	59.18	1.84	46.74	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05
	74		0.98	24.99	1.03	26.09	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	0.96	24.31	0.13	3.18	0.31	7.92
16	11	19/16	1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.15	29.08	0.25	6.35	0.44	11.10
	12		1.11	28.24	1.06	26.90	1.05	26.67	1.81	45.97	0.91	23.11	1.82	46.23	1.55	39.40	0.50	12.70	0.70	17.78
	40		1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
	51*		1.11	28.24	1.16	29.36	2.04	51.82	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80
	75		1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	0.96	24.31	0.13	3.18	0.31	7.92

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.

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26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,

MIL-DTL-5015 Matrix (MS345X)

MIL-DTL-83723 Series III

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- III
- HD
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- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix (Pyle)
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shell
- Options Others

MIL PART .5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE A																CABLE RANGE			
			A DIA. (MAX)		B (REF)		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		MIN WIRE		MAX WIRE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM		
18	13	27/18	1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88		
	14		1.22	30.94	1.16	29.36	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.78	19.79		
	41		1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	0.96	24.31	0.13	3.18	0.31	7.92		
	42		1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10		
	52		1.22	30.94	1.06	26.90	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05		
	72*		1.22	30.94	1.16	29.36	2.05	52.07	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80		
20	15	37/20	1.35	34.16	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88		
	16		1.35	34.16	1.16	29.36	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.90	22.96		
	43		1.35	34.16	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10		
	54		1.35	34.16	1.06	26.90	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05		
	55		1.35	34.16	1.38	34.93	2.14	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75		
22	17	22	1.47	37.29	1.06	26.90	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05		
	18		1.47	37.29	1.38	34.93	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.03	26.14		
	44		1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	0.96	24.31	0.13	3.18	0.31	7.92		
	45		1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.15	29.08	0.25	6.35	0.44	11.10		
	56		1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88		
	57		1.47	37.29	1.16	29.36	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80		
	58*		1.47	37.29	1.38	34.93	2.19	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75		
24	19	24	1.59	40.46	1.06	26.90	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05		
	20		1.59	40.46	1.38	34.93	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.14	29.06		
	46		1.59	40.46	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88		
	59		1.59	40.46	1.16	29.36	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80		
	73*		1.59	40.46	1.38	34.93	2.15	54.61	2.61	66.29	2.06	52.32	2.57	65.28	2.12	53.75	0.88	22.23	1.25	31.75		
28	21	28	1.97	50.01	1.16	29.36	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.77	44.96	0.63	15.88	0.94	23.80		
	22		1.97	50.01	1.50	38.10	1.39	35.31	2.26	57.40	1.31	33.27	2.22	56.39	2.36	60.02	1.00	25.40	1.38	34.93		
	60		1.97	50.01	1.06	26.90	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.55	39.40	0.50	12.70	0.75	19.05		
	61		1.97	50.01	1.38	34.93	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75		
32	23	32	2.22	56.36	1.16	29.36	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	1.77	44.96	0.63	15.88	0.94	23.80		
	24		2.22	56.36	1.38	34.93	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.11	53.67	0.88	22.23	1.25	31.75		
	25		2.22	56.36	1.78	45.24	1.74	44.20	2.51	63.75	1.38	35.05	2.32	58.93	2.77	70.36	1.25	31.75	1.63	41.28		
	62		2.22	56.36	1.50	38.10	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.36	60.02	1.00	25.40	1.38	34.93		
36	26	36	2.47	62.71	1.16	29.36	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80		
	27		2.47	62.71	1.50	38.10	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93		
	28		2.47	62.71	1.83	46.48	1.94	49.28	2.48	62.99	1.41	35.81	2.41	61.21	3.02	76.71	1.44	36.50	1.84	46.74		
	47		2.47	62.71	1.06	26.90	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05		
	63		2.47	62.71	1.38	34.93	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75		
	64		2.47	62.71	1.78	45.24	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28		
40	29	40	2.72	69.06	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80		
	30		2.72	69.06	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93		
	31		2.72	69.06	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63		
	48		2.72	69.06	1.06	26.90	1.94	49.28	2.83	71.88	2.16	54.86	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05		
	65		2.72	69.06	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75		
	66		2.72	69.06	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28		
44	32	44	2.97	75.41	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80		
	33		2.97	75.41	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93		
	34		2.97	75.41	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63		
	67		2.97	75.41	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75		
	68		2.97	75.41	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28		
48	35	48	3.22	81.76	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80		
	36		3.22	81.76	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93		
	37		3.22	81.76	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63		
	69		3.22	81.76	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75		
	70		3.22	81.76	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28		

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.

Non-Environmental EMI/RFI Backshell Straight, Spin Coupling

Amphenol



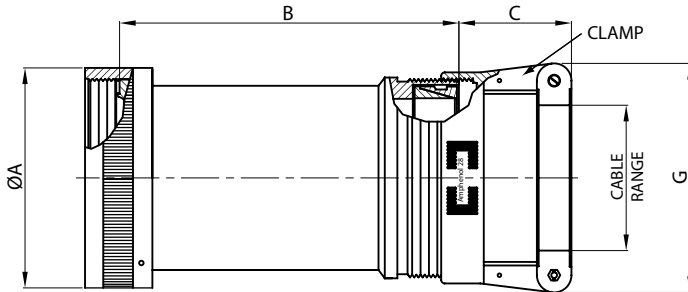
26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III



MIL Part Number
M85049 / 25 -10 W

MIL Series: M85049 / 25
 Slash Sheet: 25: Straight, Spin Coupling
 -10: Cable Length
 W: Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A

TABLE-A

-, 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
											INCH	MM	INCH	MM
8	05	8	0.62	15.67	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.25	6.35
	06		0.62	15.67	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.25	6.35
	07*		0.62	15.67	2.88	73.15	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	08*		0.62	15.67	3.88	98.55	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
10	09	10	0.73	18.64	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	10		0.73	18.64	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	11*		0.73	18.64	2.88	73.15	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	12*		0.73	18.64	3.88	98.55	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	136		0.73	18.64	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.38	9.53
	137		0.73	18.64	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.38	9.53
12	13	7/12	0.86	21.79	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	14		0.86	21.79	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	15*		0.86	21.79	2.88	73.15	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	16*		0.86	21.79	3.88	98.55	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	111		0.86	21.79	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	114		0.86	21.79	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	115		0.86	21.79	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	138		0.86	21.79	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	139		0.86	21.79	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.50	12.70
	14		17	12/14	0.98	24.99	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.58	14.61
18		0.98	24.99		3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.58	14.61
19*		0.98	24.99		2.88	73.15	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
20*		0.98	24.99		3.88	98.55	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
116		0.98	24.99		2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
117		0.98	24.99		3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
150		0.98	24.99		2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
151		0.98	24.99		3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
16	21	19/16	1.11	28.24	2.13	54.10	1.06	26.90	1.55	39.40	0.50	12.70	0.70	17.78
	22		1.11	28.24	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.70	17.78
	23*		1.11	28.24	2.88	73.15	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	24*		1.11	28.24	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	112		1.11	28.24	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	113		1.11	28.24	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	118		1.11	28.24	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	119		1.11	28.24	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	152		1.11	28.24	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	153		1.11	28.24	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.

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- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

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22992
Class I

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Options
Others



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

-, 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE-A											
SHELL SIZE	DASH NO		A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
										INCH	MM	INCH	MM	
18	25	27/18	1.22	30.94	2.13	54.10	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	26		1.22	30.94	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	27		1.22	30.94	2.13	54.10	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	28		1.22	30.94	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	29*		1.22	30.94	2.88	73.15	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	30*		1.22	30.94	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	120		1.22	30.94	2.13	54.10	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	121		1.22	30.94	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	122		1.22	30.94	2.13	54.10	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	123		1.22	30.94	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
20	31	37/20	1.35	34.16	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	32		1.35	34.16	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	33		1.35	34.16	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	34		1.35	34.16	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	35*		1.35	34.16	3.88	98.55	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	36*		1.35	34.16	4.88	123.95	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	37*		1.35	34.16	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	38*		1.35	34.16	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	124		1.35	34.16	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
	125		1.35	34.16	4.13	104.90	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10
140	1.35	34.16	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.90	22.96		
141	1.35	34.16	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.90	22.96		
22	39	22	1.47	37.29	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	40		1.47	37.29	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	41		1.47	37.29	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	42		1.47	37.29	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	43		1.47	37.29	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	44		1.47	37.29	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	45*		1.47	37.29	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	46*		1.47	37.29	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	126		1.47	37.29	3.13	79.50	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
	127		1.47	37.29	4.13	104.90	1.03	26.09	0.96	24.31	0.13	3.18	0.31	7.92
128	1.47	37.29	3.13	79.50	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
129	1.47	37.29	4.13	104.90	1.03	26.09	1.15	29.08	0.25	6.35	0.44	11.10		
142	1.47	37.29	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.03	26.14		
143	1.47	37.29	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.03	26.14		
24	47	24	1.59	40.46	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	48		1.59	40.46	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	49		1.59	40.46	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.81	20.62
	50		1.59	40.46	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.81	20.62
	51		1.59	40.46	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	52		1.59	40.46	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	53*		1.59	40.46	3.88	98.55	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	54*		1.59	40.46	4.88	123.95	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	130		1.59	40.46	3.13	79.50	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
	131		1.59	40.46	4.13	104.90	1.03	26.09	1.33	33.83	0.35	8.89	0.63	15.88
144	1.59	40.46	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.14	29.06		
145	1.59	40.46	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.14	29.06		
28	55	28	1.97	50.01	3.13	79.50	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	56		1.97	50.01	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	57		1.97	50.01	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	58		1.97	50.01	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.

4, .4) .53 . .84 0

Non-Environmental EMI/RFI Backshell Straight, Spin Coupling, cont.

Amphenol



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

-), 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE-A											
SHELL SIZE	DASH NO		A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
										INCH	MM	INCH	MM	
28, cont.	59	28	1.97	50.01	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	60		1.97	50.01	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	61		1.97	50.01	3.13	79.50	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	62		1.97	50.01	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
32	63	32	2.22	56.36	3.13	79.50	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	64		2.22	56.36	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	65		2.22	56.36	3.13	79.50	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	66		2.22	56.36	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	67		2.22	56.36	3.13	79.50	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	68		2.22	56.36	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	69		2.22	56.36	3.13	79.50	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	70		2.22	56.36	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
36	71	36	2.47	62.71	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	72		2.47	62.71	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	73		2.47	62.71	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	74		2.47	62.71	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	75		2.47	62.71	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	76		2.47	62.71	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	77*		2.47	62.71	5.01	127.25	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	78*		2.47	62.71	6.01	152.65	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	132		2.47	62.71	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	133		2.47	62.71	5.13	130.30	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	146		2.47	62.71	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.84	46.74
	147		2.47	62.71	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.84	46.74
	148		2.47	62.71	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	149		2.47	62.71	5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
40	79	40	2.72	69.06	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	80		2.72	69.06	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	81		2.72	69.06	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	82		2.72	69.06	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	83		2.72	69.06	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	84		2.72	69.06	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	85		2.72	69.06	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	86		2.72	69.06	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	134		2.72	69.06	4.13	104.90	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	135		2.72	69.06	5.13	130.30	1.06	26.90	1.55	39.40	0.50	12.70	0.75	19.05
	156		2.72	69.06	4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	157		2.72	69.06	5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
	44		87	44	2.97	75.41	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
88		2.97	75.41		5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
89		2.97	75.41		4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
90		2.97	75.41		5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
91		2.97	75.41		4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
92		2.97	75.41		5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
93		2.97	75.41		4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
94		2.97	75.41		5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
154		2.97	75.41		4.13	104.90	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
155		2.97	75.41		5.13	130.30	1.16	29.36	1.77	44.96	0.63	15.88	0.94	23.80
48	95	48	3.22	81.76	4.13	104.90	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	96		3.22	81.76	5.13	130.30	1.38	34.93	2.11	53.67	0.88	22.23	1.25	31.75
	97		3.22	81.76	4.13	104.90	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	98		3.22	81.76	5.13	130.30	1.50	38.10	2.36	60.02	1.00	25.40	1.38	34.93
	99		3.22	81.76	4.13	104.90	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	100		3.22	81.76	5.13	130.30	1.78	45.24	2.77	70.36	1.25	31.75	1.63	41.28
	101		3.22	81.76	4.13	104.90	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63
	102		3.22	81.76	5.13	130.30	1.83	46.48	3.02	76.71	1.44	36.50	1.88	47.63

* Denotes Style-2 (see page 486). For more cable entry and length options see page 486 or email: sales@backshellworld.com.

All dimensions for reference only.

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crmp Rear Release Matrix

- 22992
- Class I

- Back-
- Shells

- Options
- Others



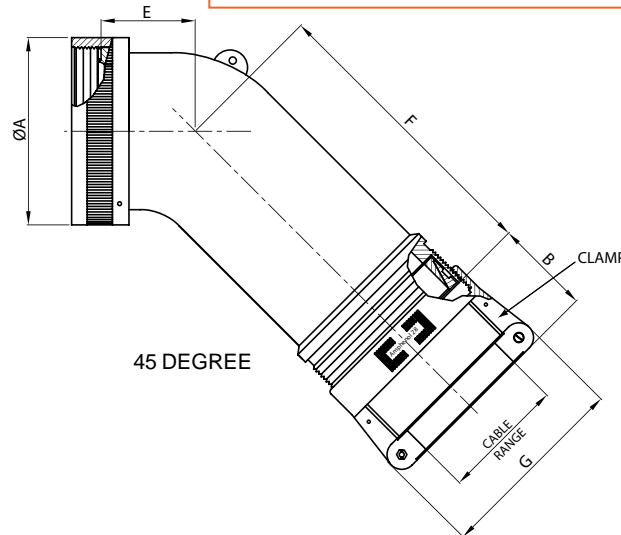
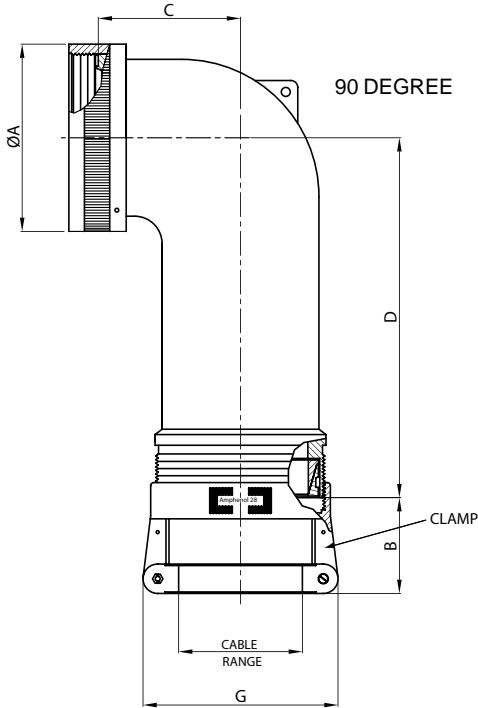
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



MIL Part Number
M85049 / 23 -10 W

MIL Series: _____
Slash Sheet: **ANFOURING**

Finish: See Table-2 (pg. 486)
Dash Number: See Table-B

TABLE-B

MIL PART .5-2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (REF) L MAX		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE RANGE			
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE	MAX WIRE	MIN WIRE	MAX WIRE
8	3	8	0.62	15.67	1.03	26.09	0.67	17.02	1.26	32.00	0.63	16.00	1.25	31.75	0.96	24.31	0.13	3.18	0.25	6.35
10	4	10	0.73	18.64	1.03	26.09	0.76	19.30	1.98	50.29	0.69	17.53	1.92	48.77	0.96	24.31	0.13	3.18	0.31	7.92
	49*		0.73	18.64	1.03	26.09	1.52	38.61	2.00	50.80	1.50	38.10	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
12	5	7/12	0.73	18.64	1.03	26.09	0.76	19.30	1.38	35.05	0.69	17.53	1.31	33.27	1.15	29.08	0.25	6.35	0.38	9.53
	6		0.86	21.79	1.03	26.09	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	0.96	24.31	0.13	3.18	0.31	7.92
	71*		0.86	21.79	1.03	26.09	1.81	45.97	2.16	54.86	1.65	41.91	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
14	7	12/14	0.86	21.79	1.03	26.09	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
	8		0.86	21.79	1.03	26.09	0.77	19.56	1.40	35.56	0.75	19.05	1.98	50.29	1.33	33.83	0.35	8.89	0.50	12.70
	9		0.98	24.99	1.03	26.09	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	1.15	29.08	0.25	6.35	0.44	11.10
	10		0.98	24.99	1.03	26.09	0.87	22.10	1.72	43.69	0.81	20.57	1.72	43.69	1.33	33.83	0.35	8.89	0.58	14.61
16	50*	19/16	0.98	24.99	1.06	26.90	1.89	48.01	2.33	59.18	1.84	46.74	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05
	74		0.98	24.99	1.03	26.09	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	0.96	24.31	0.13	3.18	0.31	7.92
16	11	19/16	1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.15	29.08	0.25	6.35	0.44	11.10
	12		1.11	28.24	1.06	26.90	1.05	26.67	1.81	45.97	0.91	23.11	1.82	46.23	1.55	39.40	0.50	12.70	0.70	17.78
	40		1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
	51*		1.11	28.24	1.16	29.36	2.04	51.82	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80
	75		1.11	28.24	1.03	26.09	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	0.96	24.31	0.13	3.18	0.31	7.92

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

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Non-Environmental EMI/RFI Backshell

Amphenol

AMPHENOL



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

TABLE-B

MIL PART 5-2 DESIGNATOR	SHELL SIZE	DASH NO	CONNECTOR SHELL SIZE	A DIA. (MAX)		B (REF) L MAX		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE RANGE					
				MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX	
				INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
18	27/18	13	1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88			
		14	1.22	30.94	1.16	29.36	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.78	19.79			
		41	1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	0.96	24.31	0.13	3.18	0.31	7.92			
		42	1.22	30.94	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10			
		52	1.22	30.94	1.06	26.90	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05			
20	37/20	72*	1.22	30.94	1.16	29.36	2.05	52.07	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80			
		15	1.35	34.16	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88			
		16	1.35	34.16	1.16	29.36	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.90	22.96			
		43	1.35	34.16	1.03	26.09	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10			
		54	1.35	34.16	1.06	26.90	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05			
22	22	55	1.35	34.16	1.38	34.93	2.14	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75			
		17	1.47	37.29	1.06	26.90	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05			
		18	1.47	37.29	1.38	34.93	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.03	26.14			
		44	1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	0.96	24.31	0.13	3.18	0.31	7.92			
		45	1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.15	29.08	0.25	6.35	0.44	11.10			
24	24	56	1.47	37.29	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88			
		57	1.47	37.29	1.16	29.36	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80			
		58*	1.47	37.29	1.38	34.93	2.14	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75			
		19	1.59	40.46	1.06	26.90	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05			
		20	1.59	40.46	1.38	34.93	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.14	29.06			
28	28	46	1.59	40.46	1.03	26.09	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88			
		59	1.59	40.46	1.16	29.36	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80			
		73*	1.59	40.46	1.38	34.93	2.15	54.61	2.61	66.29	2.06	52.32	2.57	65.28	2.12	53.75	0.88	22.23	1.25	31.75			
		21	1.97	50.01	1.16	29.36	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.77	44.96	0.63	15.88	0.94	23.80			
		22	1.97	50.01	1.50	38.10	1.39	35.31	2.26	57.40	1.31	33.27	2.22	56.39	2.36	60.02	1.00	25.40	1.38	34.93			
32	32	60	1.97	50.01	1.06	26.90	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.55	39.40	0.50	12.70	0.75	19.05			
		61	1.97	50.01	1.38	34.93	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75			
		23	2.22	56.36	1.16	29.36	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	1.77	44.96	0.63	15.88	0.94	23.80			
		24	2.22	56.36	1.38	34.93	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.11	53.67	0.88	22.23	1.25	31.75			
		25	2.22	56.36	1.78	45.24	1.74	44.20	2.51	63.75	1.38	35.05	2.32	58.93	2.77	70.36	1.25	31.75	1.63	41.28			
36	36	62	2.22	56.36	1.50	38.10	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.36	60.02	1.00	25.40	1.38	34.93			
		26	2.47	62.71	1.16	29.36	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80			
		27	2.47	62.71	1.50	38.10	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93			
		28	2.47	62.71	1.83	46.48	1.94	49.28	2.48	62.99	1.41	35.81	2.41	61.21	3.02	76.71	1.44	36.50	1.84	46.74			
		47	2.47	62.71	1.06	26.90	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05			
40	40	63	2.47	62.71	1.38	34.93	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75			
		64	2.47	62.71	1.78	45.24	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28			
		29	2.72	69.06	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80			
		30	2.72	69.06	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93			
		31	2.72	69.06	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63			
44	44	48	2.72	69.06	1.06	26.90	1.94	49.28	2.83	71.88	2.16	54.86	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05			
		65	2.72	69.06	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75			
		66	2.72	69.06	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28			
		32	2.97	75.41	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80			
		33	2.97	75.41	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93			
48	48	34	2.97	75.41	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63			
		67	2.97	75.41	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75			
		68	2.97	75.41	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28			
		35	3.22	81.76	1.16	29.36	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80			
		36	3.22	81.76	1.50	38.10	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93			
70	70	37	3.22	81.76	1.83	46.48	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63			
		69	3.22	81.76	1.38	34.93	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75			
		70	3.22	81.76	1.78	45.24	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28			

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

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III

HD



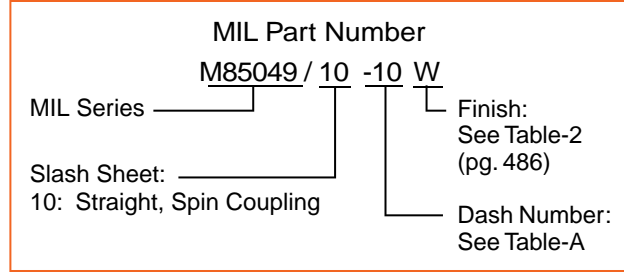
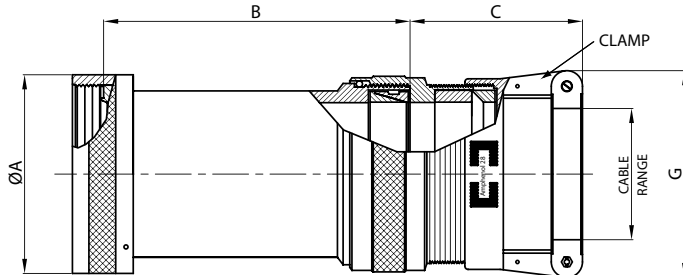
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



-, 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE - A											
SHELL SIZE	DASH NO		A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
										INCH	MM	INCH	MM	
08	05	8	0.62	15.67	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.25	6.35
	06		0.62	15.67	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.25	6.35
	07*		0.62	15.67	2.88	73.15	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	08*		0.62	15.67	3.88	98.55	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
10	09	10	0.73	18.64	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	10		0.73	18.64	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	11*		0.73	18.64	2.88	73.15	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	12*		0.73	18.64	3.88	98.55	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	136		0.73	18.64	2.13	54.10	1.54	39.22	1.15	29.08	0.25	6.35	0.38	9.53
	137		0.73	18.64	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.38	9.53
12	13	7/12	0.86	21.79	2.13	54.10	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	14		0.86	21.79	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	15*		0.86	21.79	2.88	73.15	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	16*		0.86	21.79	3.88	98.55	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	111		0.86	21.79	2.13	54.10	1.84	46.84	1.33	33.83	0.35	8.89	0.50	12.70
	114		0.86	21.79	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	115		0.86	21.79	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	138		0.86	21.79	2.13	54.10	1.84	46.84	1.33	33.83	0.35	8.89	0.50	12.70
14	139	12/14	0.86	21.79	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.50	12.70
	17		0.98	24.99	2.13	54.10	1.84	46.84	1.33	33.83	0.35	8.89	0.58	14.61
	18		0.98	24.99	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.58	14.61
	19*		0.98	24.99	2.88	73.15	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	20*		0.98	24.99	3.88	98.55	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	116		0.98	24.99	2.13	54.10	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	117		0.98	24.99	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	150		0.98	24.99	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
16	151	19/16	0.98	24.99	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	21		1.11	28.24	2.13	54.10	1.92	48.67	1.55	39.40	0.50	12.70	0.70	17.78
	22		1.11	28.24	3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.70	17.78
	23*		1.11	28.24	2.88	73.15	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	24*		1.11	28.24	3.88	98.55	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	112		1.11	28.24	2.13	54.10	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	113		1.11	28.24	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	118		1.11	28.24	2.13	54.10	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	119		1.11	28.24	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	152		1.11	28.24	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
153	1.11	28.24	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92		

* Denotes Style-2 (see page 486)

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For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.



26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Camp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

TABLE - A

-), 02.4.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
SHELL SIZE	DASH NO		INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
											INCH	MM	INCH	MM
18	25	27/18	1.22	30.94	2.13	54.10	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	26		1.22	30.94	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	27		1.22	30.94	2.13	54.10	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	28		1.22	30.94	3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	29*		1.22	30.94	2.88	73.15	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	30*		1.22	30.94	3.88	98.55	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	120		1.22	30.94	2.13	54.10	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	121		1.22	30.94	3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
	122		1.22	30.94	2.13	54.10	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	123		1.22	30.94	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
20	31	37/20	1.35	34.16	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	32		1.35	34.16	4.13	104.90	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	33		1.35	34.16	3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	34		1.35	34.16	4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	35*		1.35	34.16	3.88	98.55	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	36*		1.35	34.16	4.88	123.95	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	37*		1.35	34.16	3.88	98.55	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	38*		1.35	34.16	4.88	123.95	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	124		1.35	34.16	3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	125		1.35	34.16	4.13	104.90	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
	140		1.35	34.16	3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.90	22.96
	141		1.35	34.16	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.90	22.96
	22		39	22	1.47	37.29	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
40		1.47	37.29		4.13	104.90	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
41		1.47	37.29		3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
42		1.47	37.29		4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
43		1.47	37.29		3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
44		1.47	37.29		4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
45*		1.47	37.29		3.88	98.55	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
46*		1.47	37.29		4.88	123.95	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
126		1.47	37.29		3.13	79.50	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
127		1.47	37.29		4.13	104.90	1.54	39.22	0.96	24.31	0.13	3.18	0.31	7.92
128		1.47	37.29		3.13	79.50	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
129		1.47	37.29		4.13	104.90	1.54	39.22	1.15	29.08	0.25	6.35	0.44	11.10
142		1.47	37.29		3.13	79.50	2.23	56.64	2.11	53.67	0.88	22.23	1.03	26.14
143		1.47	37.29		4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.03	26.14
24		47	24		1.59	40.46	3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	48	1.59		40.46	4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	49	1.59		40.46	3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.81	20.62
	50	1.59		40.46	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.81	20.62
	51	1.59		40.46	3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	52	1.59		40.46	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	53*	1.59		40.46	3.88	98.55	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	54*	1.59		40.46	4.88	123.95	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	130	1.59		40.46	3.13	79.50	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	131	1.59		40.46	4.13	104.90	1.84	46.84	1.33	33.83	0.35	8.89	0.63	15.88
	144	1.59		40.46	3.13	79.50	2.23	56.64	2.11	53.67	0.88	22.23	1.14	29.06
	145	1.59		40.46	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.14	29.06
	28	55		28	1.97	50.01	3.13	79.50	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
56		1.97	50.01		4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
57		1.97	50.01		3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
58		1.97	50.01		4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
59		1.97	50.01		3.13	79.50	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
60		1.97	50.01		4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
61		1.97	50.01		3.13	79.50	2.02	51.41	23.63	600.20	1.00	25.40	1.38	34.93
62		1.97	50.01		4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93

* Denotes Style-2 (see page 486). For more cable entry and length options see page 486 or email: sales@backshellworld.com. All dimensions for reference only.



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

-, 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	TABLE - A											
SHELL SIZE	DASH NO		A DIA. (MAX)		B (MAX)		C (REF) L MAX		G (MAX) L MAX		CABLE RANGE			
			INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE		MAX WIRE	
										INCH	MM	INCH	MM	
32	63	32	2.22	56.36	3.13	79.50	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	64		2.22	56.36	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	65		2.22	56.36	3.13	79.50	2.23	56.64	2.11	53.67	0.88	22.23	12.50	317.50
	66		2.22	56.36	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	67		2.22	56.36	3.13	79.50	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	68		2.22	56.36	4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	69		2.22	56.36	3.13	79.50	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
36	71	36	2.47	62.71	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	72		2.47	62.71	5.13	130.30	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	73		2.47	62.71	4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	74		2.47	62.71	5.13	130.30	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	75		2.47	62.71	4.13	104.90	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	76		2.47	62.71	5.13	130.30	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	77*		2.47	62.71	5.01	127.25	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	78*		2.47	62.71	6.01	152.65	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	132		2.47	62.71	4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	133		2.47	62.71	5.13	130.30	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	146		2.47	62.71	4.13	104.90	2.60	66.04	3.02	76.71	1.44	36.50	1.84	46.74
	147		2.47	62.71	5.13	130.30	2.60	66.04	3.02	76.71	1.44	36.50	1.84	46.74
	148		2.47	62.71	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
149	2.47	62.71	5.13	130.30	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80		
40	79	40	2.72	69.06	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	80		2.72	69.06	5.13	130.30	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	81		2.72	69.06	4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	82		2.72	69.06	5.13	130.30	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	83		2.72	69.06	4.13	104.90	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	84		2.72	69.06	5.13	130.30	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	85		2.72	69.06	4.13	104.90	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	86		2.72	69.06	5.13	130.30	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	134		2.72	69.06	4.13	104.90	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	135		2.72	69.06	5.13	130.30	1.92	48.67	1.55	39.40	0.50	12.70	0.75	19.05
	156		2.72	69.06	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
44	87	44	2.97	75.41	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	88		2.97	75.41	5.13	130.30	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
	89		2.97	75.41	4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	90		2.97	75.41	5.13	130.30	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
	91		2.97	75.41	4.13	104.90	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	92		2.97	75.41	5.13	130.30	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
	93		2.97	75.41	4.13	104.90	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	94		2.97	75.41	5.13	130.30	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
	154		2.97	75.41	4.13	104.90	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	155		2.97	75.41	5.13	130.30	2.00	50.80	1.77	44.96	0.63	15.88	0.94	23.80
	48		95	48	3.22	81.76	4.13	104.90	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
96		3.22	81.76		5.13	130.30	2.23	56.64	2.11	53.67	0.88	22.23	1.25	31.75
97		3.22	81.76		4.13	104.90	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
98		3.22	81.76		5.13	130.30	2.02	51.41	2.36	60.02	1.00	25.40	1.38	34.93
99		3.22	81.76		4.13	104.90	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
100		3.22	81.76		5.13	130.30	2.55	64.77	2.77	70.36	1.25	31.75	1.63	41.28
101		3.22	81.76		4.13	104.90	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63
102	3.22	81.76	5.13	130.30	2.60	66.04	3.02	76.71	1.44	36.50	1.88	47.63		

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.



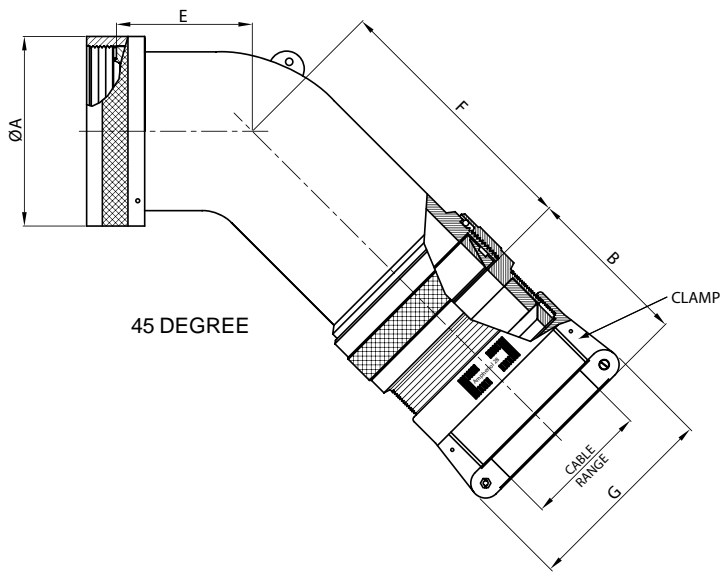
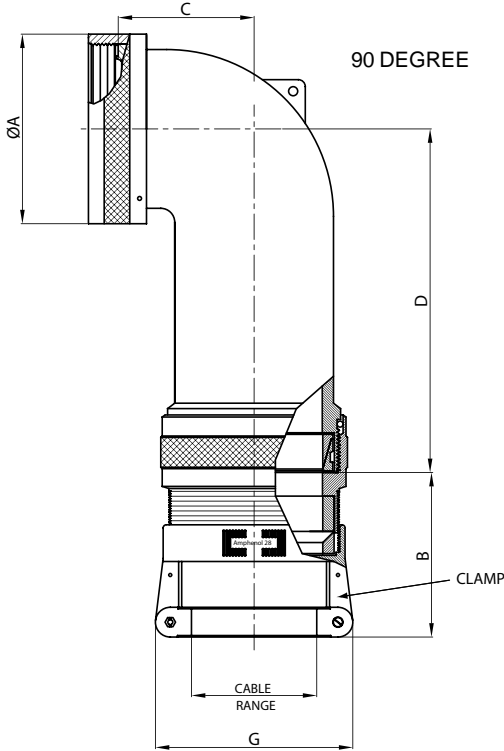
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



MIL Part Number
M85049 / 8 -10 W

MIL Series: **3030**
Slash Sheet: **3030**

Finish: See Table-2 (pg. 486)
Dash Number: See Table-A

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

- 26500 Pyle
- 5015 Crimp Rear Release Matrix

- 22992 Class I
- Back-Shell

- Options
- Others

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B (REF)		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE RANGE				
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	MIN WIRE	MAX WIRE			
08	3	8	0.62	15.67	1.54	39.22	0.67	17.02	1.26	32.00	0.63	16.00	1.25	31.75	0.96	24.31	0.13	3.18	0.25	6.35
10	4	10	0.73	18.64	1.54	39.22	0.76	19.30	1.98	50.29	0.69	17.53	1.92	48.77	0.96	24.31	0.13	3.18	0.31	7.92
	49*		0.73	18.64	1.54	39.22	1.52	38.61	2.00	50.80	1.50	38.10	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
12	5	7/12	0.73	18.64	1.54	39.22	0.76	19.30	1.38	35.05	0.69	17.53	1.31	33.27	1.15	29.08	0.25	6.35	0.38	9.53
	6		0.86	21.79	1.54	39.22	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	0.96	24.31	0.13	3.18	0.31	7.92
	71*		0.86	21.79	1.84	46.84	1.81	45.97	2.16	54.86	1.65	41.91	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
	7		0.86	21.79	1.54	39.22	0.77	19.56	2.00	50.80	0.75	19.05	1.98	50.29	1.15	29.08	0.25	6.35	0.44	11.10
14	8	12/14	0.86	21.79	1.84	46.84	0.77	19.56	1.40	35.56	0.75	19.05	1.98	50.29	1.33	33.83	0.35	8.89	0.50	12.70
	9		0.98	24.99	1.54	39.22	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	1.15	29.08	0.25	6.35	0.44	11.10
	10		0.98	24.99	1.84	46.84	0.87	22.10	1.72	43.69	0.81	20.57	1.72	43.69	1.33	33.83	0.35	8.89	0.58	14.61
	50*		0.98	24.99	1.92	48.67	1.89	48.01	2.33	59.18	1.84	46.74	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05
16	74	19/16	0.98	24.99	1.54	39.22	0.87	22.10	2.07	52.58	0.81	20.57	2.07	52.58	0.96	24.31	0.13	3.18	0.31	7.92
	11		1.11	28.24	1.54	39.22	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.15	29.08	0.25	6.35	0.44	11.10
	12		1.11	28.24	1.92	48.67	1.05	26.67	1.81	45.97	0.91	23.11	1.82	46.23	1.55	39.40	0.50	12.70	0.70	17.78
	40		1.11	28.24	1.84	46.84	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	1.33	33.83	0.35	8.89	0.63	15.88
	51*		1.11	28.24	2.00	50.80	2.04	51.82	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80
75	1.11	28.24	1.54	39.22	1.05	26.67	2.16	54.86	0.91	23.11	2.18	55.37	0.96	24.31	0.13	3.18	0.31	7.92		

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com

All dimensions for reference only.

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26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,

MIL-DTL-5015 Matrix (MS345X)

MIL-DTL-83723 Series III

TABLE - A

MIL PART .5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B (REF)		C (MAX)		D (MAX)		E (MAX)		F (MAX)		G (MAX)		CABLE RANGE					
			SHELL SIZE		DASH NO		MIN WIRE		MAX WIRE													
INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	
18	27/18	13	1.22	30.94	1.84	46.84	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88	0.78	19.79
		14	1.22	30.94	2.00	50.80	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.78	19.79	0.31	7.92
		41	1.22	30.94	1.54	39.22	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	0.96	24.31	0.13	3.18	0.31	7.92	0.44	11.10
		42	1.22	30.94	1.54	39.22	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10	0.75	19.05
		52	1.22	30.94	1.92	48.67	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05	0.63	15.88
72*	1.22	30.94	2.00	50.80	2.05	52.07	2.44	61.98	1.94	49.28	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80	1.25	31.75	0.35	8.89
20	37/20	15	1.35	34.16	1.84	46.84	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.33	33.83	0.35	8.89	0.63	15.88	0.90	22.96
		16	1.35	34.16	2.00	50.80	1.14	28.96	1.98	50.29	1.09	27.69	2.00	50.80	1.77	44.96	0.63	15.88	0.90	22.96	0.44	11.10
		43	1.35	34.16	1.54	39.22	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.15	29.08	0.25	6.35	0.44	11.10	0.63	15.88
		54	1.35	34.16	1.92	48.67	1.14	28.96	2.33	59.18	1.09	27.69	2.37	60.20	1.55	39.40	0.50	12.70	0.75	19.05	0.88	22.23
55	1.35	34.16	2.23	56.64	2.14	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23	1.25	31.75
22	22	17	1.47	37.29	1.92	48.72	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05	0.75	19.05
		18	1.47	37.29	2.23	56.64	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.03	26.14	0.88	22.23
		44	1.47	37.29	1.54	39.22	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	0.96	24.31	0.13	3.18	0.31	7.92	0.25	6.35
		45	1.47	37.29	1.54	39.22	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.15	29.08	0.25	6.35	0.44	11.10	0.35	8.89
		56	1.47	37.29	1.84	46.84	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88	0.63	15.88
		57	1.47	37.29	2.00	50.80	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80	0.75	19.05
58*	1.47	37.29	2.23	56.64	2.14	54.36	2.61	66.29	2.06	52.32	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23	1.25	31.75
24	24	19	1.59	40.46	1.92	48.67	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.55	39.40	0.50	12.70	0.75	19.05	0.75	19.05
		20	1.59	40.46	2.23	56.64	1.29	32.77	2.09	53.09	1.19	30.23	2.16	54.86	2.11	53.67	0.88	22.23	1.14	29.06	0.88	22.23
		46	1.59	40.46	1.84	46.84	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.33	33.83	0.35	8.89	0.63	15.88	0.94	23.80
		59	1.59	40.46	2.00	50.80	1.29	32.77	2.44	61.98	1.19	30.23	2.52	64.01	1.77	44.96	0.63	15.88	0.94	23.80	0.88	22.23
73*	1.59	40.46	2.23	56.64	2.15	54.61	2.61	66.29	2.06	52.32	2.57	65.28	2.12	53.75	0.88	22.23	1.25	31.75	0.88	22.23	1.25	31.75
28	28	21	1.97	50.01	2.00	50.80	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		22	1.97	50.01	2.02	51.41	1.39	35.31	2.26	57.40	1.31	33.27	2.22	56.39	2.36	60.02	1.00	25.40	1.38	34.93	1.00	25.40
		60	1.97	50.01	1.92	48.67	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	1.55	39.40	0.50	12.70	0.75	19.05	0.75	19.05
		61	1.97	50.01	2.23	56.64	1.39	35.31	2.61	66.29	1.31	33.27	2.57	65.28	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
32	32	23	2.22	56.36	2.00	50.80	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		24	2.22	56.36	2.23	56.64	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
		25	2.22	56.36	2.55	64.77	1.74	44.20	2.51	63.75	1.38	35.05	2.32	58.93	2.77	70.36	1.25	31.75	1.63	41.28	1.63	41.28
62	2.22	56.36	2.02	51.41	1.74	44.20	2.86	72.64	1.38	35.05	2.67	67.82	2.36	60.02	1.00	25.40	1.38	34.93	1.00	25.40		
36	36	26	2.47	62.71	2.00	50.80	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		27	2.47	62.71	2.02	51.41	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93	1.00	25.40
		28	2.47	62.71	2.60	66.04	1.94	49.28	2.48	62.99	1.41	35.81	2.41	61.21	3.02	76.71	1.44	36.50	1.84	46.74	1.84	46.74
		47	2.47	62.71	1.92	48.67	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05	0.75	19.05
		63	2.47	62.71	2.23	56.64	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
64	2.47	62.71	2.55	64.77	1.94	49.28	2.83	71.88	1.41	35.81	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28	1.63	41.28		
40	40	29	2.72	69.06	2.00	50.80	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		30	2.72	69.06	2.02	51.41	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93	1.38	34.93
		31	2.72	69.06	2.60	66.04	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63	1.88	47.63
		48	2.72	69.06	1.92	48.67	1.94	49.28	2.83	71.88	2.16	54.86	2.76	70.10	1.55	39.40	0.50	12.70	0.75	19.05	0.75	19.05
		65	2.72	69.06	2.23	56.64	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
		66	2.72	69.06	2.55	64.77	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28	1.63	41.28
44	44	32	2.97	75.41	2.00	50.80	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		33	2.97	75.41	2.02	51.41	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93	1.38	34.93
		34	2.97	75.41	2.60	66.04	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63	1.88	47.63
		67	2.97	75.41	2.23	56.64	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
		68	2.97	75.41	2.55	64.77	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28	1.63	41.28
48	48	35	3.22	81.76	2.00	50.80	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	1.77	44.96	0.63	15.88	0.94	23.80	0.94	23.80
		36	3.22	81.76	2.02	51.41	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.36	60.02	1.00	25.40	1.38	34.93	1.38	34.93
		37	3.22	81.76	2.60	66.04	2.69	68.33	2.48	62.99	2.16	54.86	2.41	61.21	3.02	76.71	1.44	36.50	1.88	47.63	1.88	47.63
		69	3.22	81.76	2.23	56.64	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.11	53.67	0.88	22.23	1.25	31.75	0.88	22.23
70	3.22	81.76	2.55	64.77	2.69	68.33	2.83	71.88	2.16	54.86	2.76	70.10	2.77	70.36	1.25	31.75	1.63	41.28	1.63	41.28		

* Denotes Style-2 (see page 486) For more cable entry and length options see page 486 or email: sales@backshellworld.com. All dimensions for reference only.

Shrink Boot Adapter Straight, Spin Coupling



26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

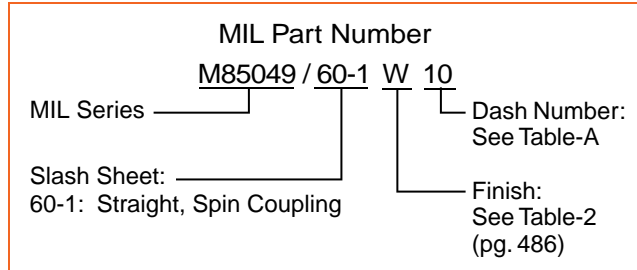
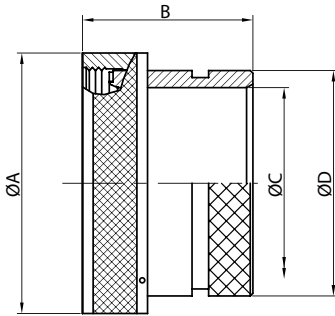


TABLE-A

MIL PART .5-2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B (MAX)		C DIA. (MIN)		D DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	8	0.62	15.67	1.19	30.15	0.25	6.35	0.53	13.54
10	10	0.73	18.64	1.19	30.15	0.36	9.02	0.61	15.37
12	7/12	0.86	21.79	1.19	30.15	0.49	12.47	0.77	19.66
14	12/14	0.98	24.99	1.19	30.15	0.57	14.35	0.84	21.29
16	19/16	1.11	28.24	1.19	30.15	0.69	17.53	0.96	24.46
18	27/18	1.22	30.94	1.19	30.15	0.77	19.53	1.04	26.47
20	37/20	1.35	34.16	1.19	30.15	0.89	22.71	1.22	30.91
22	22	1.47	37.29	1.19	30.15	1.02	25.88	1.36	34.42
24	24	1.59	40.46	1.19	30.15	1.13	28.80	1.44	36.65
28	28	1.97	50.01	1.51	38.38	1.37	34.77	1.71	43.41
32	32	2.22	56.36	1.51	38.38	1.62	41.02	1.92	48.74
36	36	2.47	62.71	1.51	38.38	1.83	46.48	2.17	55.09
40	40	2.72	69.06	1.51	38.38	2.05	51.94	2.40	61.01
44	44	2.97	75.41	1.51	38.38	2.30	58.42	2.66	67.49
48	48	3.22	81.76	1.51	38.38	2.55	64.77	2.91	73.84

* Denotes Style-2 (see page 486)

For more cable entry and length options see page 486 or email: sales@backshellworld.com
 All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class I

Back-Shell

Options
Others

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shells

Options Others

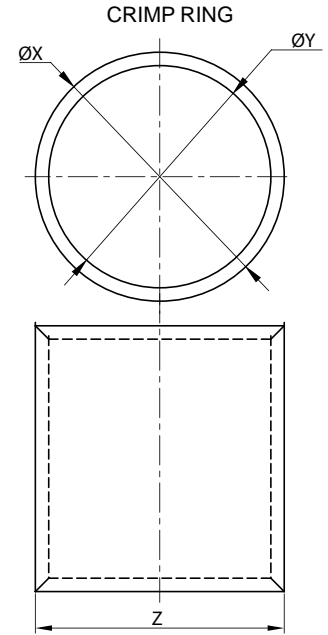
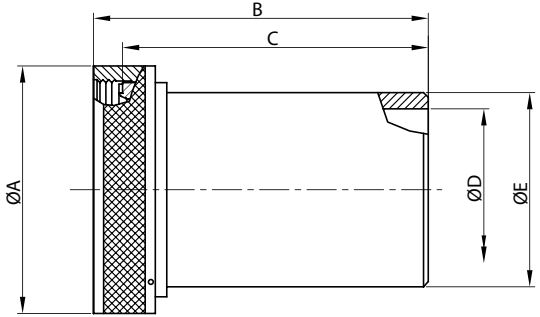
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



MIL Part Number

M85049 / 26 -1 -10 W

MIL Series: M85049 / 26
 Slash Sheet: -1
 26: Straight, Spin Coupling
 Crimp Ring: -10
 1: Adapter
 2: Crimp Ring
 3: Adapter with Crimp Ring

Finish: See Table-2 (pg. 486) **ME v**

Dash Number: See Table-A (for 26-1 & 26-3) Table-B (for 26-2)

DASH NO	CONNECTOR SHELL SIZE	A DIA (MAX)		B (MAX)		C (MAX)		D DIA (MAX)		E DIA. (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	8	0.62	15.67	1.28	32.34	0.96	24.38	0.25	6.35	0.35	8.81
10	10	0.73	18.64	1.28	32.34	0.96	24.38	0.33	8.26	0.50	12.70
12	7/12	0.86	21.79	1.28	32.34	0.96	24.38	0.42	10.67	0.51	12.95
14	12/14	0.98	24.99	1.28	32.34	0.96	24.38	0.54	13.72	0.63	16.00
16	19/16	1.11	28.24	1.28	32.34	0.96	24.38	0.67	17.02	0.76	19.30
18	27/18	1.22	30.94	1.28	32.34	0.96	24.38	0.79	20.04	0.89	22.61
20	37/20	1.35	34.16	1.28	32.34	0.96	24.38	0.91	23.22	1.01	25.65
22	22	1.47	37.29	1.28	32.34	0.96	24.38	1.04	26.39	1.13	28.70
24	24	1.59	40.46	1.28	32.34	0.96	24.38	1.11	28.24	1.20	30.48
28	28	1.97	50.01	1.44	36.55	0.96	24.38	1.39	35.28	1.56	39.62
32	32	2.22	56.36	1.44	36.55	0.96	24.38	1.64	41.53	1.81	45.97
36	36	2.47	62.71	1.44	36.55	0.96	24.38	1.85	46.99	2.06	52.32
40	40	2.72	69.06	1.44	36.55	0.96	24.38	2.07	52.45	2.31	58.67
44	44	2.97	75.41	1.44	36.55	0.96	24.38	2.32	58.93	2.56	65.02
48	48	3.22	81.76	1.44	36.55	0.96	24.38	2.57	65.28	2.81	71.37

DASH NO	PART NO COLOR	CONNECTOR SHELL SIZE	X DIA				Y DIA				Z	
			MIN		MAX		MIN		MAX		INCH	MM
			INCH	MM	INCH	MM	INCH	MM	INCH	MM		
8	GREEN	8	0.45	11.38	0.46	11.63	0.40	10.16	0.41	10.41	0.25	6.35
10	RED	10	0.66	16.76	0.68	17.27	0.59	14.86	0.60	15.11	0.44	11.18
12	RED	7/12	0.66	16.76	0.68	17.27	0.59	14.86	0.60	15.11	0.44	11.18
14	,5	12/14	0.78	19.81	0.80	20.32	0.71	17.91	0.72	18.16	0.44	11.18
16	GRAY	19/16	0.91	23.11	0.93	23.62	0.84	21.21	0.85	21.46	0.44	11.18
18	BROWN	27/18	1.08	27.43	1.10	27.94	1.01	25.53	1.02	25.78	0.44	11.18
20	GREEN	37/20	1.20	30.48	1.22	30.99	1.13	28.58	1.14	28.83	0.44	11.18
22	0).+	22	1.32	33.53	1.34	34.04	1.25	31.62	1.26	31.88	0.44	11.18
24	YELLOW	24	1.39	35.23	1.41	35.74	1.31	33.32	1.32	33.58	0.44	11.18
28	RED	28	1.74	44.20	1.76	44.70	1.67	42.29	1.68	42.55	0.44	11.18
32	GRAY	32	1.99	50.55	2.01	51.05	1.92	48.64	1.93	48.90	0.44	11.18
36	GREEN	36	2.24	56.90	2.26	57.40	2.17	54.99	2.18	55.25	0.44	11.18
40	ORANGE	40	2.49	63.25	2.51	63.75	2.42	61.34	2.43	61.60	0.44	11.18
44	YELLOW	44	2.74	69.20	2.76	70.10	2.67	67.69	2.68	67.95	0.44	11.18
48	,5	48	2.99	75.95	3.01	76.45	2.92	74.04	2.93	74.30	0.44	11.18

All dimensions for reference only.

Note: For more cable entry and length options, email: sales@backshellworld.com



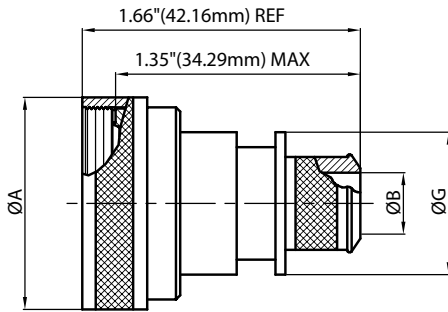
26482 Matrix Series 2

5015 Matrix (MS345X)

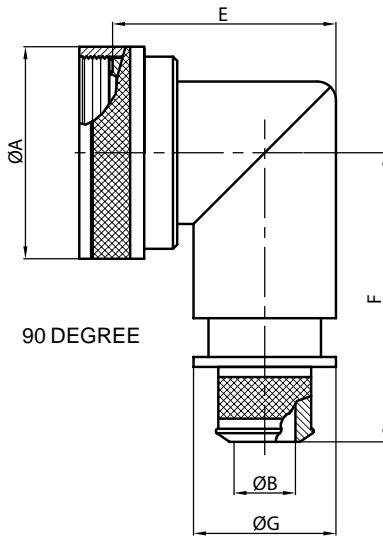


MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

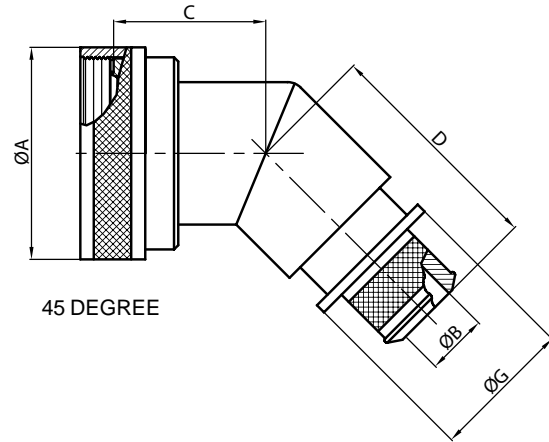
83723 Matrix & Pyle Series III



STRAIGHT



90 DEGREE



45 DEGREE

MIL Part Number

M85049 / 82 -10 W 02

MIL Series: M85049 / 82
 Slash Sheet: 82: Straight, Self-Lock
 Finish: See Table-2 (pg. 486)
 Shell Size: See Table-A

Entry Size: See Table-A

TABLE-A

-), 024.5 - 2 DESIGNATOR		CONNECTOR SHELL SIZE	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX.)		G MAX	
ACCESSORY SHELL SIZE	ENTRY SIZE		INCH	MM	+0.00	+0.00	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
					-0.02	-0.50										
08	02	8	0.89	22.48	N/A	N/A	0.87	22.10	1.16	29.46	1.19	30.18	1.42	35.99	N/A	N/A
	03				0.26	6.60									0.56	14.22
10	02	10	1.01	25.65	N/A	N/A	0.89	22.61	1.18	29.97	1.28	32.54	1.48	37.59	N/A	N/A
	03				0.32	8.13									0.63	16.00
12	02	7 / 12	1.14	28.83	0.32	8.13	0.92	23.37	1.20	30.48	1.41	35.71	1.54	39.17	0.63	16.00
	03				0.45	11.43									0.75	19.05
14	02	12 / 14	1.26	32.00	0.45	11.43	0.94	23.88	1.22	30.99	1.53	38.89	1.61	40.77	0.75	19.05
	03				0.57	14.48									0.89	22.61
16	02	19 / 16	1.39	35.18	0.51	12.95	0.96	24.38	1.25	31.75	1.66	42.06	1.67	42.34	0.82	20.83
	03				0.64	16.26									0.95	24.13
18	02	27 / 18	1.51	38.35	0.64	16.26	0.98	24.89	1.26	32.00	1.72	43.64	1.73	43.94	0.95	24.13
	03				0.76	19.30									1.07	27.18
20	02	37 / 20	1.64	41.53	0.64	16.26	1.00	25.40	1.29	32.77	1.84	46.84	1.79	45.52	0.95	24.13
	03				0.82	20.83									1.13	28.07
22	02	22	1.76	44.70	0.70	17.78	1.03	26.16	1.31	33.27	1.94	49.23	1.85	46.99	1.02	25.99
	03				0.95	24.13									1.26	32.00
24	02	24	1.89	47.88	0.76	19.30	1.05	26.67	1.34	34.04	2.09	53.16	1.92	48.69	1.07	27.18
	03				1.01	25.65									1.32	33.53
28	02	28	2.14	54.23	0.89	22.61	1.10	27.94	1.38	35.05	2.53	64.29	2.04	51.87	1.19	30.23
	03				1.14	28.96									1.47	37.34

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shell

Options Others



26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

- EMI Filter
- Transient

- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

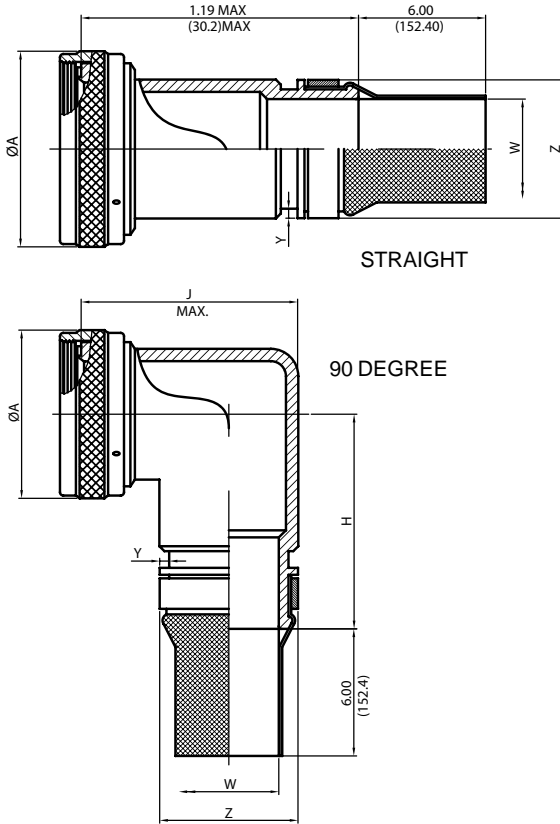
- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class I

- Back-Shells

- Options
- Others



MIL Part Number

M85049 / 109 S 10 T W 03 -6 D

- MIL Series: M85049 / 109
- Slash Sheet: 109: Straight
- Coupling: S: Self-Lock
- Shell Size: See Table-A
- Entry Size: See Table-A & B
- Finish: See Table-2 (pg. 486)
- Shield Finish: (Material: Copper) +~~0~~ T: Tin
- Shield Length: 6 inches min. 18 inches max. 1 inch increments 6: 6 inch, 7: 7 inch, so on
- Drain Hole Option

024.5 - 2 DESIGNATOR			CONNECTOR SHELL SIZE	A DIA. (MAX)		H (MAX)		* - 8	
SHELL SIZE-MIL	ALLOWABLE ENTRY SIZE			INCH	MM	INCH	MM	INCH	MM
		MIN	MAX						
08	-	01	8	0.885	22.48	1.73	43.94	1.12	28.45
10	01	03	10	1.010	25.65	1.85	46.99	1.25	31.75
12	01	05	7/12	1.135	28.83	1.87	47.50	1.38	35.05
14	02	06	12/14	1.260	32.00	1.94	49.28	1.44	36.58
16	04	08	19/16	1.385	35.18	2.03	51.56	1.56	39.62
18	05	09	27/18	1.510	38.35	2.20	55.88	1.75	44.45
20	07	11	37/20	1.635	41.53	2.20	55.88	1.75	44.45
22	09	13	22	1.760	44.70	2.31	58.67	2.00	50.80
24	11	14	24	1.885	47.88	2.31	58.67	2.00	50.80
28	14	16	28	2.135	54.23	2.48	62.99	2.25	57.15
32	16	17	32	2.395	60.83	2.73	69.34	2.75	69.85
36	17	19	36	2.635	66.93	2.73	69.34	3.125	79.38
40	19	21	40	2.885	73.28	2.88	73.15	4.125	104.78
44	21	23	44	3.135	79.63	3.00	76.20	4.125	104.78
48	23	25	48	3.385	85.98	3.12	79.25	4.125	104.78

ENTRY SIZE	W ±0.020	W ±0.508	Y +0.008 -0.000	Y +0.200 -0.000	Z MAX	Z MAX
	INCH	MM	INCH	MM	INCH	MM
01	0.250	6.350	0.044	1.12	0.56	14.22
02	0.312	7.920	0.044	1.12	0.63	16.00
03	0.375	9.530	0.044	1.12	0.69	17.53
04	0.438	11.130	0.044	1.12	0.75	19.05
05	0.500	12.700	0.044	1.12	0.82	20.83
06	0.562	14.270	0.044	1.12	0.89	22.61
07	0.625	15.880	0.044	1.12	0.95	24.13
08	0.688	17.480	0.044	1.12	1.02	25.91
09	0.750	19.050	0.069	1.75	1.07	27.18
10	0.812	20.620	0.069	1.75	1.13	28.70
11	0.875	22.230	0.069	1.75	1.19	30.23
12	0.938	23.830	0.069	1.75	1.26	32.00
13	1.000	25.400	0.069	1.75	1.32	33.53
14	1.125	28.575	0.069	1.75	1.47	37.34
15	1.250	31.750	0.069	1.75	1.60	40.64
16	1.375	34.930	0.069	1.75	1.71	43.43
17	1.500	38.100	0.086	2.18	1.84	46.74
18	1.625	41.280	0.086	2.18	2.00	50.80
19	1.750	44.450	0.086	2.18	2.12	53.85
20	1.875	47.630	0.086	2.18	2.27	57.66
21	2.000	50.800	0.086	2.18	2.44	61.98
22	2.125	53.980	0.086	2.18	2.60	66.04
23	2.250	57.150	0.086	2.18	2.75	69.85
24	2.375	60.325	0.086	2.18	2.90	73.66
25	2.500	63.500	0.086	2.18	3.06	77.72

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.



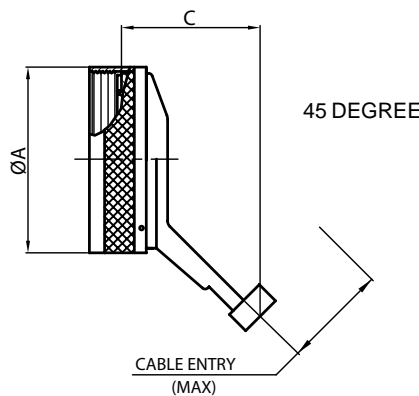
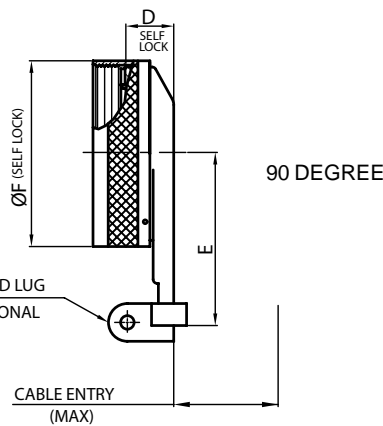
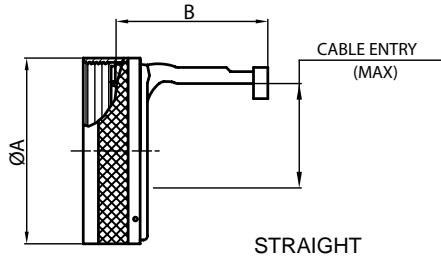
26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III



MIL Part Number

M85049 / 53 - 10 W

MIL Series: M85049 / 53
 Slash Sheet: 53: Straight
 Coupling: -: Non Self-Lock
 G: Non Self-Lock with
 T: Self-Lock with
 Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA.(MAX)		B (MAX)		C (MAX)		D (MAX)		E (MAX)		F DIA.(MAX)		WIRING ENTRY MAX	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	8	0.66	16.69	0.95	24.23	1.23	31.29	0.73	18.54	1.22	30.99	0.89	22.48	0.26	6.60
10	10	0.78	19.86	0.95	24.23	1.23	31.29	0.73	18.54	1.29	32.77	1.01	25.65	0.37	9.27
12	07/12/12	0.94	23.80	0.95	24.23	1.23	31.29	0.73	18.54	1.62	41.15	1.14	28.83	0.50	12.73
14	12/14/12	1.05	26.67	1.20	30.58	1.23	31.29	0.73	18.54	1.66	42.16	1.26	32.00	0.58	14.61
16	19/16	1.24	31.47	1.20	30.58	1.23	31.29	0.73	18.54	1.72	43.69	1.39	35.18	0.70	17.78
18	27/18	1.38	35.00	1.20	30.58	1.23	31.29	0.73	18.54	1.72	43.69	1.51	38.35	0.78	19.79
20	37/20	1.50	38.10	1.31	33.27	1.48	37.64	0.75	19.05	1.79	45.47	1.64	41.53	0.90	22.96
22	22	1.63	41.43	1.43	36.32	1.48	37.64	0.75	19.05	1.85	46.99	1.76	44.70	1.03	26.14
24	24	1.75	44.45	1.56	39.62	1.48	37.64	0.75	19.05	1.91	48.51	1.89	47.88	1.14	29.06
28	28	1.97	50.04	1.56	39.62	1.47	37.31	0.75	19.05	2.06	52.32	2.14	54.23	1.38	35.03

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

- 5015 Crimp Rear Release Matrix
- 22992 Class I

- Back-Shells
- Options Others



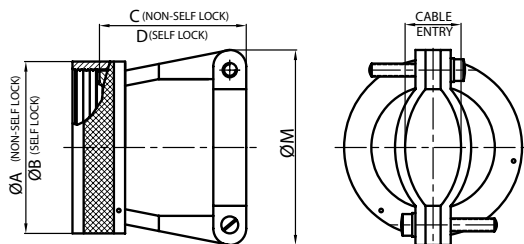
26482 Matrix Series 2

5015 Matrix (MS345X)

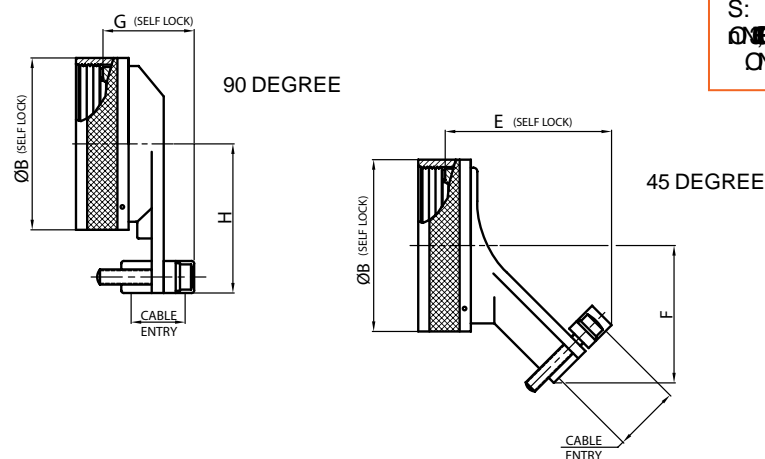
83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



STRAIGHT



90 DEGREE

45 DEGREE

MIL Part Number

M85049 / 52 - 10 W

MIL Series: M85049 / 52
 Slash Sheet: 52: Straight
 Coupling: S: Self-Lock

Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA.(MAX)		B DIA.(MAX)		C (MAX)		D (MAX)		E (MAX)		F (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
8	8	0.62	15.67	0.89	22.48	0.63	16.00	0.73	18.54	1.32	33.53	0.77	19.61
10	10	0.73	18.64	1.01	25.65	0.74	18.80	0.85	21.59	1.36	34.65	0.80	20.40
12	7/12	0.86	21.79	1.14	28.83	0.86	21.84	0.98	24.89	1.44	36.53	0.87	22.00
14	12/14	0.98	24.99	1.26	32.00	0.86	21.84	0.98	24.89	1.48	37.59	0.93	23.57
16	19/16	1.11	28.24	1.39	35.18	0.99	25.15	1.10	27.94	1.59	40.28	0.99	25.17
18	27/18	1.22	30.94	1.51	38.35	1.24	31.50	1.35	34.29	1.70	43.28	1.11	28.19
20	37/20	1.35	34.16	1.64	41.53	1.36	34.54	1.48	37.59	1.75	44.40	1.17	29.77
22	22	1.47	37.29	1.76	44.70	1.49	37.85	1.60	40.64	1.79	45.52	1.24	31.37
24	24	1.59	40.46	1.89	47.88	1.61	40.89	1.73	43.94	1.84	46.63	1.30	32.94
28	28	1.97	50.01	2.14	54.23	1.76	44.70	1.88	47.75	1.96	49.81	1.54	39.19
32	32	2.22	56.36	2.40	60.83	1.95	49.53	2.13	54.10	2.05	52.04	1.67	42.37
36	36	2.47	62.71	2.64	66.93	2.33	59.18	2.44	61.98	2.09	53.16	1.79	45.54
40	40	2.72	69.06	2.89	73.28	2.51	63.75	2.63	66.80	2.09	53.19	1.92	48.72
44	44	2.97	75.41	3.14	79.63	2.89	73.41	3.00	76.20	2.36	59.94	2.13	54.15
48	48	3.22	81.76	3.39	85.98	3.26	82.80	3.40	86.36	2.45	62.18	2.26	57.33

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

Strain Relief Clamp



26482 Matrix Series 2

5015 Matrix (MS345X)



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

83723 Matrix & Pyle Series III

TABLE – A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	G (MAX)		H (MAX)		M (MAX)		CABLE ENTRY			
		INCH	MM	INCH	MM	INCH	MM	MIN		MAX	
								INCH	MM	INCH	MM
08	8	0.93	23.62	0.75	18.95	0.78	19.86	0.13	3.18	0.20	5.18
10	10	1.02	25.91	0.81	20.45	0.86	21.89	0.19	4.75	0.29	7.26
12	7/12	1.21	30.73	0.87	22.02	1.00	25.48	0.29	7.39	0.42	10.57
14	12/14	1.27	32.26	0.93	23.62	1.06	26.95	0.35	8.92	0.48	12.09
16	19/16	1.42	36.07	0.99	25.25	1.33	33.88	0.50	12.73	0.63	15.90
18	27/18	1.53	38.86	1.17	29.74	1.47	37.24	0.52	13.16	0.71	17.93
20	37/20	1.65	41.91	1.23	31.34	1.57	39.93	0.58	14.76	0.83	21.11
22	22	1.78	45.21	1.30	32.92	1.69	42.88	0.64	16.36	0.96	24.28
24	24	1.90	48.26	1.36	34.49	1.79	45.47	0.71	17.93	1.08	27.46
28	28	2.20	55.88	1.57	39.93	2.04	51.69	0.75	19.05	1.19	30.15
32	32	2.27	57.66	1.80	45.64	2.39	60.60	0.88	22.23	1.25	31.75
36	36	2.39	60.71	1.92	48.82	2.50	63.40	0.94	23.83	1.38	34.93
40	40	2.52	64.01	2.05	51.99	2.57	65.18	0.94	23.83	1.50	38.10
44	44	2.77	70.36	2.30	58.32	2.86	72.64	1.19	30.18	1.75	44.45
48	48	2.89	73.41	2.42	61.49	3.34	84.94	1.31	33.32	1.88	47.63

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others



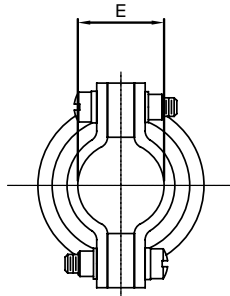
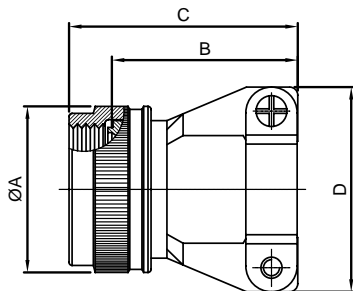
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



MIL Part Number

M85049 / 118 - 10 W

MIL Series: M85049 / 118
 Slash Sheet: 118: Straight
 Dash Number: 10
 Coupling: W
 Finish: See Table-2 (pg. 486)
 Dash Number: See Table-A
 Coupling: S: Self-Lock, -: Non Self-Lock

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE/ CODE (REF.)	A DIA.(MAX)		B LENGTH		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
CONNECTOR SHELL SIZE										INCH	MM
08	8S	0.89	22.61	0.77/0.51	19.56/12.95	1.14	28.96	0.88	22.35	0.22	5.56
10	10S, 10SL	1.01	25.65	0.89/0.64	22.61/16.26	1.25	31.75	0.94	23.88	0.26	6.71
12	12, 12S	1.14	28.96	1.01/0.76	25.65/19.30	1.38	35.05	1.12	28.45	0.34	8.74
14	14, 14S	1.26	32.00	1.01/0.76	25.65/19.30	1.38	35.05	1.19	30.23	0.46	11.68
16	16, 16S	1.39	35.31	1.13/0.88	28.70/22.35	1.50	38.10	1.44	36.58	0.55	13.84
18	18	1.51	38.35	1.38/1.13	35.05/28.70	1.75	44.45	1.56	39.62	0.62	15.62
20	20	1.64	41.66	1.51/1.25	38.35/31.75	1.88	47.75	1.69	42.93	0.69	17.53
22	22	1.76	44.70	1.62/1.38	41.15/35.05	2.00	50.80	1.75	44.45	0.78	19.81
24	24	1.89	48.01	1.76/1.51	44.70/38.35	2.13	54.10	1.88	47.75	0.85	21.59
28	28	2.14	54.36	2.03/1.67	51.56/42.42	2.56	65.02	2.12	53.85	0.95	24.13
32	32	2.40	60.96	2.28/1.87	57.91/47.50	2.81	71.37	2.50	63.50	1.02	25.78
36	36	2.64	67.06	2.53/2.22	64.26/56.39	3.06	77.72	2.62	66.55	1.19	30.15
40	40	2.89	73.41	2.63/2.41	66.80/61.21	3.16	80.26	2.68	68.07	1.22	30.99
44	44	3.14	79.76	3.00/2.80	76.20/71.12	3.53	89.66	3.00	76.20	1.50	38.10
48	48	3.39	86.11	3.40/3.20	86.36/81.28	3.93	99.82	3.50	88.90	1.63	41.28

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

Strain Relief Clamp



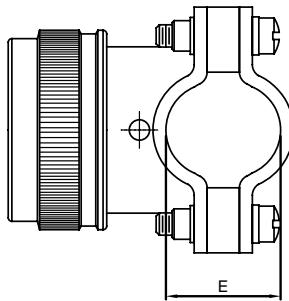
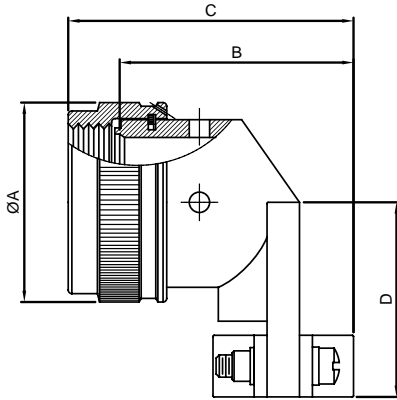
26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III



90 DEGREE

MIL Part Number

M85049 / 120 - 10 W

MIL Series ————

Slash Sheet: ————

Finish:
See Table-2
(pg. 486)

Dash Number:
See Table-A

Coupling:
S: Self-Lock
-: Non Self-Lock

TABLE - A

MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA.(MAX)		B (MAX)		C (MAX)		D (MAX)		E (CLOSED)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	±.031	±.787
										INCH	MM
08	8S	0.88	22.35	0.93	23.62	1.29	32.77	0.81	20.57	0.22	5.56
10	10S, 10SL	0.94	23.88	1.02	25.91	1.38	35.05	0.87	22.10	0.26	6.71
12	12, 12S	1.12	28.45	1.21	30.73	1.57	39.88	0.93	23.62	0.34	8.74
14	14, 14S	1.19	30.23	1.27	32.26	1.63	41.40	1.00	25.40	0.46	11.68
16	16, 16S	1.44	36.58	1.42	36.07	1.78	45.21	1.06	26.92	0.55	13.84
18	18	1.56	39.62	1.53	38.86	1.89	48.01	1.23	31.24	0.62	15.62
20	20	1.69	42.93	1.65	41.91	2.01	51.05	1.30	33.02	0.70	17.73
22	22	1.75	44.45	1.78	45.21	2.14	54.36	1.36	34.54	0.78	19.81
24	24	1.88	47.75	1.90	48.26	2.26	57.40	1.42	36.07	0.85	21.59
28	28	2.12	53.85	2.20	55.88	2.72	69.09	1.63	41.40	0.95	24.13
32	32	2.50	63.50	2.27	57.66	2.79	70.87	1.86	47.24	1.02	25.78
36	36	2.62	66.55	2.39	60.71	2.91	73.91	1.98	50.29	1.19	30.15
40	40	2.68	68.07	2.52	64.01	3.04	77.22	2.10	53.34	1.22	30.99
44	44	3.00	76.20	2.77	70.36	3.29	83.57	2.36	59.94	1.50	38.10
48	48	3.50	88.90	2.89	73.41	3.41	86.61	2.48	62.99	1.63	41.28

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

Email: sales@backshellworld.com

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others



26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

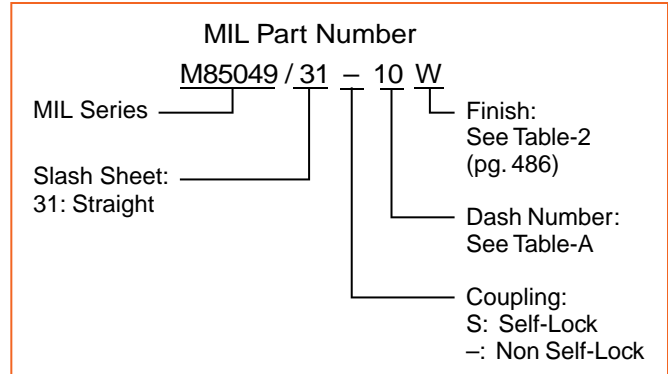
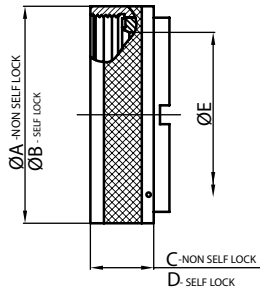


TABLE-A											
MIL PART .5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B DIA. (MAX)		C (MAX)		D (MAX)		E (MAX)	
		INCH	MM	INCH	MM	INCH	MM	INCH	MM	INCH	MM
DASH NO											
08	8	0.62	15.67	0.89	22.48	0.54	13.72	0.71	18.03	0.27	6.86
10	10	0.73	18.64	1.01	25.65	0.54	13.72	0.71	18.03	0.38	9.53
12	7/12	0.86	21.79	1.14	28.83	0.54	13.72	0.71	18.03	0.51	12.98
14	12/14	0.98	24.99	1.26	32.00	0.54	13.72	0.71	18.03	0.59	14.86
16	19/16	1.11	28.24	1.39	35.18	0.54	13.72	0.71	18.03	0.71	18.03
18	27/18	1.22	30.94	1.51	38.35	0.54	13.72	0.71	18.03	0.79	20.04
20	37/20	1.35	34.16	1.64	41.53	0.54	13.72	0.71	18.03	0.91	23.22
22	22	1.47	37.29	1.76	44.70	0.54	13.72	0.71	18.03	1.04	26.39
24	24	1.59	40.46	1.89	47.88	0.54	13.72	0.71	18.03	1.15	29.31
28	28	1.97	50.01	2.14	54.23	0.70	17.83	0.89	22.61	1.39	35.28
32	32	2.22	56.36	2.40	60.83	0.70	17.83	0.89	22.61	1.64	41.53
36	36	2.47	62.71	2.64	66.93	0.70	17.83	0.89	22.61	1.85	46.99
40	40	2.72	69.06	2.89	73.28	0.70	17.83	0.89	22.61	2.07	52.45
44	44	2.97	75.41	3.14	79.63	0.70	17.83	0.89	22.61	2.32	58.93
48	48	3.22	81.76	3.39	85.98	0.70	17.83	0.89	22.61	2.57	65.28

Note: For more cable entry and length options, email: sales@backshellworld.com
 All dimensions for reference only.

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells
- Options Others

Shrink Boot Nut

Straight, Self-Lock/Non Self-Lock



26482 Matrix Series 2

5015 Matrix (MS345X)

83723 Matrix & Pyle Series III



MIL-DTL-26482 Series 2,
MIL-DTL-5015 Matrix (MS345X)
MIL-DTL-83723 Series III

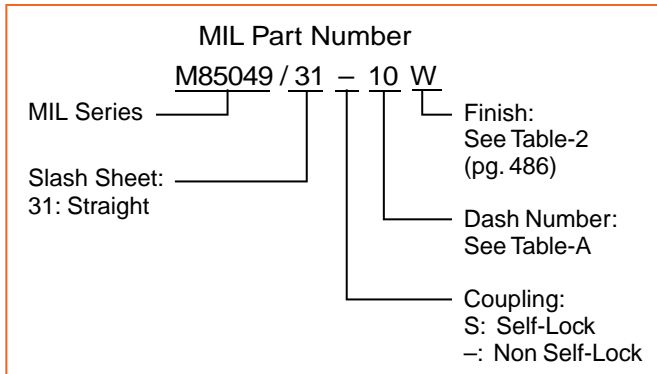
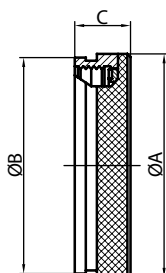


TABLE-A

-, 024.5 - 2 DESIGNATOR	CONNECTOR SHELL SIZE	A DIA. (MAX)		B DIA. (MAX)		C (MAX)	
		INCH	MM	INCH	MM	INCH	MM
08	8	0.69	17.48	0.66	16.69	0.54	13.72
10	10	0.80	20.40	0.77	19.66	0.54	13.72
12	7/12	0.94	23.83	0.90	22.81	0.54	13.72
14	12/14	1.06	27.00	1.02	26.01	0.54	13.72
16	19/16	1.24	31.45	1.15	29.26	0.54	13.72
18	27/18	1.31	33.27	1.24	31.57	0.54	13.72
20	37/20	1.44	36.47	1.37	34.80	0.54	13.72
22	22	1.56	39.62	1.44	36.65	0.54	13.72
24	24	1.69	42.82	1.62	41.10	0.54	13.72
28	28	2.06	52.37	1.97	50.01	0.70	17.83
32	32	2.31	58.72	2.22	56.36	0.70	17.83
36	36	2.56	65.07	2.47	62.71	0.70	17.83
40	40	2.81	71.42	2.72	69.06	0.70	17.83
44	44	3.06	77.77	2.97	75.41	0.70	17.83
48	48	3.31	84.12	3.22	81.76	0.70	17.83

Note: For more cable entry and length options, email: sales@backshellworld.com
All dimensions for reference only.

38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH
SPEED

Fiber
Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class I

Back-
Shells

Options
Others

Amphenol Options, Other Products



Press Fit
Connectors
on PC Board



Cable
Assemblies



38999 Connectors
with RADSOK®



Amphe-Power
with RADSOK®



Integrated Systems



Micro-Miniatures



Rectangular
Connectors with
Brush Contacts



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Interconnects for Industrial Markets:

- s Process Control
- s Rail Mass Transportation
- s ~~CONCEPT~~
- s Energy
- s ~~CONCEPT~~

Rectangular Interconnect Typical Markets:

- s ~~CONCEPT~~
- s IC Chip Testers
- s GPS Systems, Telecommunications
- s Military and Commercial Aviation
- s Military Vehicles

Amphenol
Aerospace

North America and Asia, Amphenol Aerospace has diverse capabilities to design

From simple point-to-point assemblies to ruggedized overmolded harnesses,

Production Capabilities Include:

• 7 AWG

• 18 AWG

• 20 AWG

• 22 AWG

• 24 AWG

• 26 AWG

• 28 AWG

• 30 AWG

• 32 AWG

• 34 AWG

• 36 AWG

• 38 AWG

• 40 AWG

• 42 AWG

• 44 AWG

• 46 AWG

• 48 AWG

• 50 AWG

• 52 AWG

• 54 AWG

• 56 AWG

• 58 AWG

• 60 AWG

• 62 AWG

• 64 AWG

• 66 AWG

• 68 AWG

• 70 AWG

• 72 AWG

• 74 AWG

• 76 AWG

• 78 AWG

• 80 AWG

• 82 AWG

• 84 AWG

• 86 AWG

• 88 AWG

• 90 AWG

• 92 AWG

• 94 AWG

• 96 AWG

• 98 AWG

• 100 AWG

Micro-D Harness Capabilities

- pig-tailed Micro-D
- Custom over-braiding
- Simple PTP - custom to ruggedized cable harnesses



Markets Currently Served

- Military Vehicles
- Automotive
- Avionics
- Commercial Aerospace
- Rail Mass Transit
- Munitions Communications
- Oil and Gas



MARKETS

38999

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB
- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables
- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class 1
- Back-Shells
- Options Others



2M Cable Assemblies

Overmolding

s Amphenol excels in overmolding cable technology, perfect for



pressure manufacturing methods, and include various

s angle mechanical strain relief in a variety of backshells, as
® and other

Environmental Capabilities

- s Temperature Range: -40° to 200° C capab le
- s Fluid Resistance: oil, battery acid, hydraulic fluid, diesel
- s Flammability: UL94V-O
- s Waterproof: IP67

Over 40 presses: vertical, horizontal, shuttle base	
Shot Size	85 cm^3, Discrete Parts: 200 cm^3
Material	PA, PPA, PBT, PET, TPV, PU, PP, PVC, 3x
Production Tooling Time	1-2 WKS
Type of Process	Injection
Testing Capabilities	(I) Coupling
	70FC6 M
	IR, 1Gohm
	Wire Processing, pull test, crimp inspection



Primary Wire and ArmorLight™

Amphenol is a recognized supplier of primary wire, specialized cable and cable designed for harsh environment applications.

Production facility includes wire extrusion and cabling lines along with 5 ArmorLight twisters. Polyurethane cable jacketing also available.

ArmorLight Features

- s Improved crush factor
- s Flexible bend radius
- s Abrasion resistant
- s Operational temp -40° to +70° C

Consult Amphenol Industrial for more information on



High-Speed Cable Assemblies

Amphenol provides a large array of cable



one-cable interconnection, to a multiple cable system, Amphenol can design and

protocols, including:

- s ASE4
- s ASE4
- s 53
- s) IRE

Press Fit Connectors For PC Board Applications—38999 Option

Amphenol manufactures a complete series of 38999 compliant pin contacts for solderless mounting on printed circuit boards (PCBs), DTL-38999 Series I, II or III insert pattern having contact size 16, 20 or 25 mil.

MIL-DTL-38999 Circular Connectors' inserts and shell styles and the PCB section for Press Fit Connectors on Printed Circuit Board applications.

Benefits include:

- s Elimination of soldering thermal stress
- s No short circuits by soldered connections
- s No cleaning of excess flux
- s Optional contact for piercing conformal board coating is available

Mounting Force

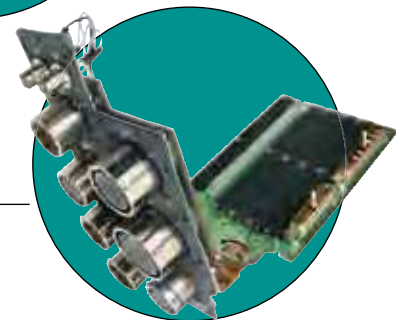
Mounting force for mounting the connector on the board is 7 to 16 pounds per contact.



Amphenol Press Fit Connectors for Solderless mounting on printed circuit boards.

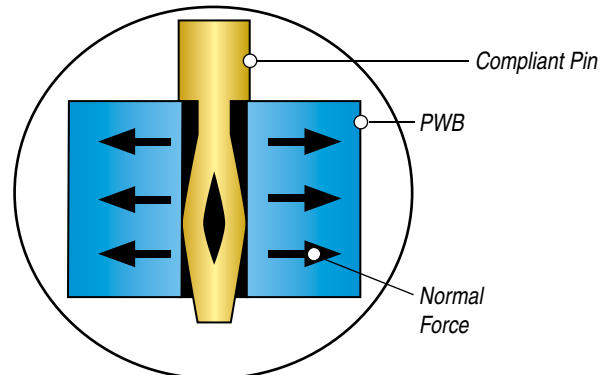
Press Fit

Press Fit Connectors on Printed Circuit Board



Amphenol Press Fit Contact Technology

- s Beryllium copper tail, heat treated to spring hardness
- s The compliant eye is a natural 2 beam spring
- s The eye is oversized relative to the plated through hole and is compressed upon insertion
- s After insertion the spring exerts a normal force on the hole creating an electrical path via a tight friction fit



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle

5015 Crimp Rear Release Matrix
22992 Class I

Back-Shell's
Options Others

Integrated System Packaging

Amphenol is the leading manufacturer of integrated system solu-

ed Systems is the synergistic combination of key Amphenol divisions:

- Amphenol
- Amphenol
- Amphenol
- Amphenol

We have over 60 years of experience in the military and aerospace market and our commitment to the industry is

the printed circuit board, the backplane and the chassis,



Above: An example integrated system box that includes the fol-

- Amphenol
- Amphenol
- Amphenol
- Amphenol
- Amphenol
- Amphenol
- Amphenol
- Amphenol

high density brush contact connectors

Amphenol Products- Performance in the Most Demanding Environments

Amphenol can provide system solutions - everything you need inside and outside the box - including products that

formance interconnect products, printed circuit boards, backplane assemblies, flex circuitry, heat-sinks and metal

Amphenol also provides value-added assembly including bussing, full system assembly including chassis build and

Amphenol leads the industry by offering the elements necessary for success in the military and aerospace OEM supply chain:

- Amphenol
- Amphenol
- Amphenol
- Amphenol

The Engineering Edge

Amphenol Integrated Systems tackles problems such as PWB routing, signal integrity, mechanical robustness, and thermal reliability concurrently rather than independently by value-added applications engineering

Solving complex packaging challenges depends on making sure that environmental, mechanical, and

By taking this system-level perspective and focusing on these factors, Amphenol Integrated Systems is able to meet your program's most challenging packaging re-

providing expert design and applications engineering

Integrated Systems solutions are found aboard commercial airliners, helicopters, Navy and Air force Fight-



Other examples of Amphenol Integrated Systems and Enclosures

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class L

- Back-Shells

- Options Others



KVTV Series

A combination of MIL-DTL-38999 & MIL-DTL-5015 technologies that provides a low cost solution for high power requirements while keeping the features and benefits these series are known for.

KVTV Features / Benefits

Incorporates MIL-DTL-38999 Series III shells and outer coupling

• Providing shell-to-shell bottoming and EMI banding for

• 2) ①

• ②

• ③

• ④

• ⑤

Incorporates MIL-DTL-5015 Series inserts and backshell accessories

• ⑥

• ⑦

• ⑧

• ⑨

Flouroelastomer or Neoprene inserts - giving some versatility in your

• ⑩

• ⑪

• ⑫

- giving the extra sealing and support needed in harsh environments

IEP Interconnects

Designed for those who have smaller space constraints and high frequency power applications. Provides a robust rectangular solution with a tool-less mate & unmate feature.

IEP Features / Benefits

• ⑬

• ⑭

• STANDARD 2+

• ⑮

• ⑯

• ⑰

• ⑱

• ⑲

• Split-insert construction for ease of assembly of contacts into con-

• ⑳

• ㉑

• ㉒ contacts) available



For more detailed description of KVTV Series, including insert arrangements, see Amphenol PDS-226 online at www.amphenol-aerospace.com



38999

III

HD

Dualok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shell's

Options Others



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

Back-Shells

Options Others

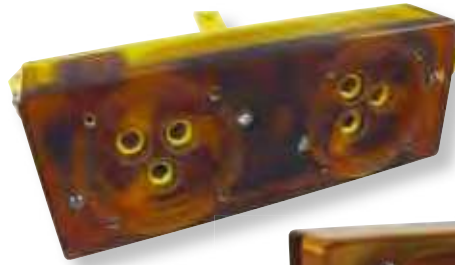
FlexaBIS™

A flexible busbar system designed to minimize mechanical stress on the connectors and components within a power box.

Enhances sealing and reduces space requirements

FlexaBIS™ Features / Benefits

- s Can be expanded to include filtering
- s Can be designed to use any COTS
- s Available in high temperature PAI PEI (Polytherimide)
- s IO connectors on the outside of the box plug into the FlexaBIS on the inside of the box



FlexaBIS front view (low temperature PEI material)



FlexaBIS back view (low temperature PEI material)



FlexiBIS front view (high temperature PAI material)

Busbars

Amphenol can provide busbars to meet any application requirement with both Rigid and Flexible solutions.

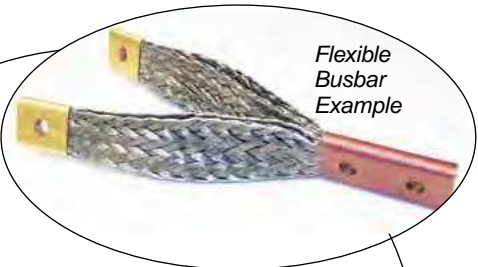
Technologies can be combined with existing connector solutions, creating a low cost connector-busbar assembly.

Rigid Busbars

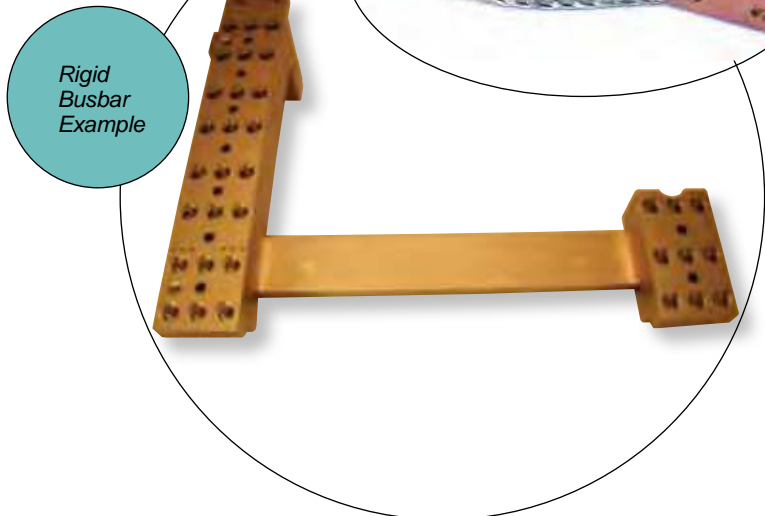
- s Value-add capability to include existing

Rigid Busbars

- s
- s



Flexible Busbar Example



Rigid Busbar Example

38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/S
PC

• HIGH RELIABILITY

Amphenol® design and construction technology create an electrical connection that is highly reliable in aerospace, medical, industrial, automotive, mining, offshore, and other harsh environments depend on high reliability of the Amphenol RADSOK®

• LOW CONTACT ENGAGEMENT/SEPARATION FORCES

The hyperbolic lamella socket contact construction distributes normal forces

• LOW CONTACT RESISTANCE

Amphenol® contacts' high current rating

• HIGH MATING CYCLE DURABILITY

Amphenol RADSOK® connectors are designed for high mating cycle durability and exposure to harsh environmental abuse (salt, sand, and high humidity), Amphenol RADSOK® connectors



HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

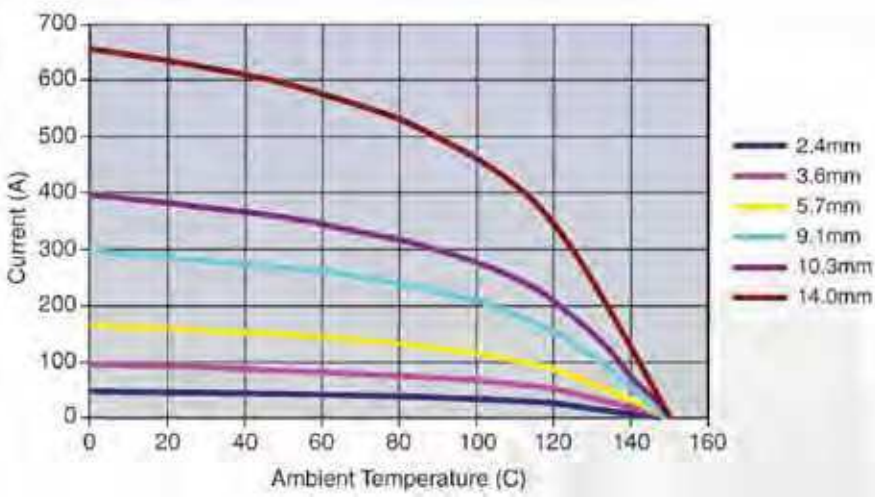
5015
Crimp Rear Release Matrix

22992
Class I

Back-Shell
Shells

Options
Others

RADSOK® Derating Chart – Temperature vs. Current



For more information on RADSOK® products from Amphenol:

Contact Amphenol Aerospace Operations, Sidney, NY
AMPHENOL
(Phone: 586-294-7400)

The Amphenol® RADSOK® Solution to Bring more Power to the Board... Three High Amperage Products:

PowerBlok™
Provides a high current single-point connection of up to 70 Amps to the PCB, Amphenol®

RADsert™

Amphenol® RADsert™ connectors provide a high current board level product rated to 120 Amps

PGY™

An orthogonal card edge connector Amphenol® PGY™ connectors provide a high current board level product rated to 120 Amps

Amphenol's RADSOK® solution offers many options for high current single-point connections to printed circuit boards. Amphenol's RADSOK® connectors can supply up to 120 Amp to the board

Standard and Custom-Developed Solutions



Standard and Custom-Developed Solutions
 RADSOK[®] components,
 engineering and manufacturing resources to provide RADSOK[®] sockets pressed
 into busbars, crimped to cables, assembled into connectors, assembled into
 customer or Amphenol designed specialized electrical devices, or as stand-alone

RADSOK[®] products range from

The Wide Variety of RADSOK[®] Applications include:

The Wide Variety of RADSOK[®] Applications include:
 s 2 3 +
 RADSOK[®] contacts can be designed to fit any housing
 RADSOK[®] and high speed copper contacts in
 the same interconnect package

Amphenol operates quality systems that are certified to ISO9001:2000 by third party registrars.



38999

III

HD

Duallok

II

I

SJT

Accessories

Aquacon

Herm/Seal

PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

Wide Range of Circular Interconnects

Amphenol has the broadest circular interconnect offering

~~██████████~~

circular connectors:

s -), 4,

s -), 4,

s -), 4,

s -), 4,

s -), 4,

s -),



MIL-DTL-5015

~~██████████~~

~~██████████~~

(Catalog 12-020) or refer to page 460 in the MIL-DTL-5015

~~██████████~~

MIL-DTL-26482

Additional MIL-DTL-26482 Series 1 circular connectors not covered in this catalog is available online at

~~██████████~~

to page 345 in the MIL-DTL-26482 Matrix 2 section of this

~~██████████~~

MIL-DTL-22992

~~██████████~~

~~██████████~~

and QWL are not covered in this catalog; see page 570 for

~~██████████~~

MIL-C-81511

General duty circular connectors 348 Series,

~~██████████~~

~~██████████~~

MICRO-MINIATURE

Amphenol's Micro-Miniature connector products are smaller

~~██████████~~

~~██████████~~

~~██████████~~

~~██████████~~

IS ~~██████████~~

~~██████████~~

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38999
III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED
Fiber Optics
Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear
Release
Matrix

22992
Class 1

Back-
Shells

Options
Others

2M Micro-Miniature Connectors

is IN VARIOUS COMPACT FORMS
is SMALLER THAN J4,



SERIES	2M801 	2M803 	2M804 	2M805 
TYPE	Dual-Start ACME Thread	Bayonet	Push-Pull	Tri-Start ACME Thread
DESCRIPTION	More rugged keys and	Quick-mating, light duty, immersion, 50 milliohms	long mating life and superior	ratchet mechanism and ground spring for military airframes and avionics
CONTACTS	1 to 130	1 to 55	1 to 55	1 to 30
COUPLING			Push-pull, Quick-Disconnect	Tri-Start Thread
WATER IMMERSION, MATED	MIL-STD-810 Method 512	Splash-proof	MIL-STD-810 Method 512	MIL-STD-810 Method 512
-) 3(,).	Good	Fair	Very Good	Excellent
VIBRATION & 3(+	37 g's Random Vibration; 300 g's Shock			
MATING CYCLES	2000 Cycles	250 Cycles Aluminum 2000 Cycles Stainless Steel	2000 Cycles	500 Cycles
ELECTRICAL PERFORMANCE		#12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC	-0 6 #23: 5 AMP, 500 VAC	

HD38999 High Density Connectors

is

density Mil-Spec 38999 connector of its size

is

arrangements

is

versions, hermetic and custom versions

is



Micro-D Miniature Rectangular

is

STANDARD

is

is

is

is

is

is

is

is

is

Crimp Pigtailed Micro-D

is

is

is

38999

Terrapin Connectors

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

in soldier communication applications
 performance and high environmental sealing to IP68
 ability for overmolding



- HIGH SPEED
- Fiber Optics
- Contacts
- Connectors
- Cables

Nexus Connectors

to the exacting specifications of MIL-DTL-55116



- EMI Filter
- Transient

HD SIM Rectangular Connectors

SPEED/DUES



- 26482
- Matrix 2

- 83723 III
- Matrix | Pyle

- 26500
- Pyle

- 5015
- Crimp Rear Release Matrix

- 22992
- Class 1

- Back-Shells

- Options
- Others

Additional Circular Connectors For a Wide Range of Applications, Military & Industrial

Amphe-Lite™, Non-MS Commercial 38999 Type

Reference Catalog 12-094



OPTIONAL FEATURES

-
-
-
-
-

APPLICATION

AL Series Commercial 38999, Series III type connector for higher performance industrial

STANDARDS/ REQUIREMENTS

Offers 38999 type high performance capabilities for severe environment applications, yet is cost effective enough for general duty and non-envi-

COUPLING/ MOUNTING

Quickly, completely mates in one 360° turn of the coupling
Universal mounting holes for front or rear mounting, locksmith metal keying to aid in

CONTACT TERMINATION

Recessed pins SCOPRO feature minimizes

PERFORMANCE ENVIRON./ELECT.

n TO IP67 rating for environmental
Class U provides a Composite shells resist
Operating voltage to 900

MARKETS

-
-
-

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

GT Series, Reverse Bayonet

Reference Catalog 12-024



OPTIONAL FEATURES

-
-
-
-
-
-
-
-

APPLICATION

GT Series rugged connector, environmentally Preferred connector for mass in mil-aero applications such

STANDARDS/ REQUIREMENTS

Utilizes MIL-DTL-5015 Intermateable

COUPLING/ MOUNTING

Reverse bayonet mating, audible, visual and tactile full mating to 2000 couplings

CONTACT TERMINATION

Crimp or solder

PERFORMANCE ENVIRON./ELECT.

n TO Viton inserts: -50°C to provide high dielectric strength and moisture performance in Resilient rubber covers provide higher shock
Operating voltage to 3000 VAC (RMS) at

MARKETS

-
-
-
-
-

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

GTC-M Series - The GT with Metal Clip Inserts

Reference PDS-181 (Product Data Sheet)



OPTIONAL FEATURES

-
-
-

APPLICATION

GTC-M Series Combines the GT reverse bayonet shell and the rear release metal clip retention system
Amphenol® MIL-DTL-5015

STANDARDS/ REQUIREMENTS

Intermateable and inter-standard GT

COUPLING/ MOUNTING

Reverse bayonet mating, audible, visual and tactile full mating indication
Captivated coupling nut assembly

CONTACT TERMINATION

Crimp or solder

PERFORMANCE ENVIRON./ELECT.

n TO Completely environmental contact seals, gaskets, IP67 rating for
Operating voltage to 3000 VAC (RMS) at

MARKETS

-
-
-
-

- 5015 Crimp Rear Release Matrix
- 22992 Class I

- Back-Shell's
- Options Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Pyle Star-Line®

Reference Catalog 12-054



OPTIONAL FEATURES

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Environmental circulars for high amperage and high density control and instrumentation	exceeds MIL-DTL-5015 E and R UL listed and CSA listed for circuit breaking	Double lead Acme threads provide complete coupling in one turn of the coupling nut, and do not clog under	Solder, crimp and Circuit breaking	IP67 rating for provides dielectric Up to high amperage of 1135 amps at 1000VAC or DC rating

STAR-LOK®

Optional features include: ...

MARKETS
...

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix | Pyle
- 26500 Pyle

Pyle Star-Line EX®

Reference Catalog 12-054



OPTIONAL FEATURES

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
environmental circulars potentially explosive Rugged, double lead	the Star-Line higher temper- Cenelec Certified for use in Zone 1-Ilc hazardous	Double lead Acme threads provide complete coupling in one turn of the coupling nut, and do not clog under	Solder, crimp and Circuit breaking	IP67 rating for environmental coating provides di- heat and corrosion high amperage of 1135 amps at 1000VAC or DC rating

grips, straight or angled adapters, and receptacles mounted to

MARKETS
...

- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back- Shells
- Options Others

MIL-DTL-5015 Modifications

Reference Catalog 12-021



OPTIONAL FEATURES

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Proprietary supplements to MS5015 same MIL-DTL-5015 inserts, but offer some additional special arrangements	Offer same electrical ratings and characteristics of MIL-DTL-5015 -3 10-214 Series designed to accommodate Navy controlled multi-conductor armored cable per MIL-C-915 OR -),		Solder and crimp	IP67 Resilient inserts provide high dielectric strength and styles have axial compression type clamping nut that provides stain relief and IP67 performance in Operating voltage to 3000

FP3106 plug, 10-part numbers and SC potting types are Solder; 10-214

MARKETS
...

Additional Circular Connectors For a Wide Range of Applications, Military & Industrial

Amphe-Power™ GT, Amphe-Power™ 5015 (AC)

Reference Brochure SL-391



OPTIONAL FEATURES



MARKETS

Amphenol AC-B Reverse Bayonet Series - Reference 12-027

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Amphe-Power GT and 5015 (AC) connectors designed for the most demanding industrial and transportation applications.	GT and 5015 (AC) connectors enhanced with contacts (hyperbolic, stamped grid configuration) that handle up to higher amperages than standard connectors.	Reverse bayonet coupling.	RADSOK® contacts, available in size 8 (69 amps), size 4 (120 amps), and size 0 (250 amps). For RADSOK® contact advantage.	Connectors are all 5015 type. 5015 styles are IP67 similar performance in environmental verification from 50A to over 500A.

MARKETS



Amphe-Power™ Composite Amphe-GTR

Reference Brochure SL-391



OPTIONAL FEATURES



MARKETS

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Amphe-GTR GT connector with high amperage shell, coupling nut, receptacle and high performance molded composite shell.	Listed per 5, 5, 5, all the specifications process control and server.	Reverse bayonet coupling.	Compression termination to the field replacement of pin or socket contacts, or complete plug and receptacle.	Meets same performance levels as GT. 23+ contacts enable increased current ratings to 120A on individual standard PG adapter to achieve IP67 seal.

MARKETS



Amphe-Power™ P-Lok Connectors

Reference Brochure SL-391



OPTIONAL FEATURES

MARKETS

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
P-Lok connectors are designed for high amperage usage in industrial and transportation applications.	P-Lok and MIL-DTL-5015 characteristics, RADSOK for higher amperage.	Spring pressure push-pull mating of the contacts. Audible and tactile conformation of position.	Have RADSOK contacts, available in size 8 (69 amps), size 4 (120 amps), and size 0 (250 amps). The receptacle has the 14mm RADSOK® socket.	Meets same performance levels as 23+ socket is rated for 500A continuous. Environmentally sealed.

MARKETS



Transportation



38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics

Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

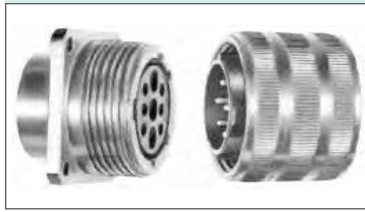
Back-Shells

Options Others

38999

QWLD, MIL-DTL-22992

Reference Catalog 12-052



OPTIONAL FEATURES

Options that include both MS and special

APPLICATION

QWLD Military MS17343 and Commercial
Rugged, environmental circular

Increased shell size compared to standard 5015 connectors for greater

STANDARDS/ REQUIREMENTS

MS approved versions
-, 4,
Incorporates MIL-DTL-5015 inserts plus special

Class C:
Class R:

COUPLING/ MOUNTING

Double stub threaded per MIL-STD-1373 for fast coupling, easy
Rated to 500

CONTACT TERMINATION

Crimp or solder

PERFORMANCE ENVIRON./ELECT.

Resilient inserts provide high dielectric strength and moisture
explosion proof and are resistant to vibration and shock, hydraulic fluids, oils
Operating voltage to 3000

MARKETS

QWL, MIL-DTL-22992 Type

Reference Catalog 12-053



OPTIONAL FEATURES

Patterns that include both MS and

APPLICATION

QWL Series
Rugged, environmental circulars designed to be more economical alternative to designs for heavy

STANDARDS/ REQUIREMENTS

Commercial performance levels that
-, 4,
Incorporates MIL-DTL-5015 inserts plus special

COUPLING/ MOUNTING

Double stub threaded per MIL-STD-1373 for fast coupling, easy

CONTACT TERMINATION

Crimp or solder

PERFORMANCE ENVIRON./ELECT.

Resilient inserts provide high dielectric strength and
shells are resistant to vibration and shock, hydraulic fluids, oils and salt
Operating voltage to 3000

MARKETS

348 Series, MIL-C-81511 Series I & II

Reference Catalog 12-093



OPTIONAL FEATURES

APPLICATION

348 Series M81511
For general duty
Series II is standard length, Series

STANDARDS/ REQUIREMENTS

MS versions are approved to MIL-C-81511 Series I & II

COUPLING/ MOUNTING

3 point bayonet

CONTACT TERMINATION

Series I has recessed pins scoop-proof feature minimizes contact

PERFORMANCE ENVIRON./ELECT.

IP67 rating for
Operating voltage to 600

MARKETS

Additional Circular Connectors

For a Wide Range of Applications, Military & Industrial

67 Series, Connectors

Reference Catalog 12-023



OPTIONAL FEATURES

-
-
-
-

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
67 Series Environmentally sealed, medium Designed to meet MIL-DTL-5015 specifications, but gray anodized aluminum shell and	Meets temperature ranges and moisture resistance of MIL-DTL-5015 Miniaturized of standard MIL-DTL-5015	Spring-loaded	Crimp rear insertable, rear releasable contact	Performance per TO IP67 rating for Operating voltage to 1800

MARKETS

-
-

165 Series, Connectors

Reference Catalog 12-023



OPTIONAL FEATURES

-
-
-
-

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
165 Series Environmentally sealed, medium Designed to meet MIL-DTL-5015 Class C specifications, but lighter anodized aluminum shell and bayonet	Meets temperature ranges and moisture resistance of MIL-DTL-5015 Miniaturized of standard MIL-DTL-5015	Bayonet	Crimp rear insertable, rear releasable contact	Performance per TO IP67 rating for O-ring seals in both plug and receptacles make connectors pressure proof Operating voltage to 600

MARKETS

-
-

Shorting Plugs

Consult your local Amphenol sales



OPTIONAL FEATURES

- attachments to meet customer
-

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Modified plugs or receptacles in all cylindrical connector series Designed to provide specific circuit functions such as safety shorting, electrical commoning	Available modification design series: MIL-DTL-26482 MIL-DTL-38999 MIL-DTL-5015 MIL-DTL-83723	Tethered eyelet	Termination is per connector series	Performance is per

MARKETS

-

Luminus Series

Consult Amphenol PCD for



OPTIONAL FEATURES

-
-
-
-

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION	PERFORMANCE ENVIRON./ELECT.
Small, cost-effective connectors,	Meet MIL-T-81714	Quick, simple installation and maintenance is Locking mechanism Suitable for blind-mating	Accept AS39029 contacts	Performance per TO IP67, 4 Interfacial and triple-barrier seal enables

MARKETS

-
-

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

- Fiber Optics
- Contacts
- Connectors
- Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

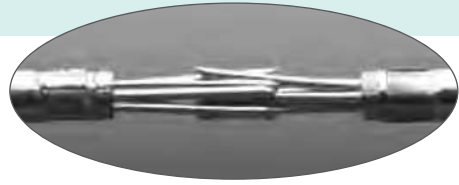
22992
Class 1

Back-Shell's

Options
Others

- 38999
- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

Low Mating Force High Cycle, Bristle Brush Contacts



Bristle Brush Contacts - Multiple Strands of Wire are Bundled Together to form a "Brush-like" Contact

Multiple Strands of Wire

achieved over conventional contacts, and the brush contact has proven

Wide range of Rectangular Interconnects

Amphenol provides an impressive array of Rectangular Connectors to meet the needs of high density systems and

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

BR AS (FOR LIGHTNING) -
32 - 4 (DOWNWARDS)
*423 (CONGARS 4 - 3 - 4 (FOR POON, 4)
(0 (32 - 4,2

Low Mating Force Rectangular Connectors with Bristle Brush Contacts

- EMI Filter Transient
- 26482 Matrix 2
- 83723 III Matrix (Pyle
- 26500 Pyle
- 5015 Crimp Rear Release Matrix
- 22992 Class I
- Back-Shells

Part Number	APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
26482	Mother Board Series	Military designation: MIL-4, THROUGH	For mounting to printed circuit boards or discrete offered:	Brush contact (called B3 contacts) Termination Styles: THROUGH hole solder REPA - (only) REE put only) GEM RANO plated through holes (MB only) Arrangements: 10 to 100 con-	High performance glass-filled Connector configurations are capable of supporting Bristle Brush contacts provide: EPOXY reduction from conventional contact life - over 20,000 cycles of mating and
83723 III	Daughter Board Series	Rectangular connectors for attachment to print-	boards	Grid contact	one contact per
26500	PC Series	Offers high contact density capabil-	boards	one contact per	one contact per
5015	PC Series	Brush contacts, consisting of multiple strands of high tensile that are bundled together to form a	boards	one contact per	one contact per
22992	PC Series	Variety of Rectangular Brush Connectors including smaller styles that have only 10 contacts and are available in color coded	boards	one contact per	one contact per

OPTIONAL FEATURES

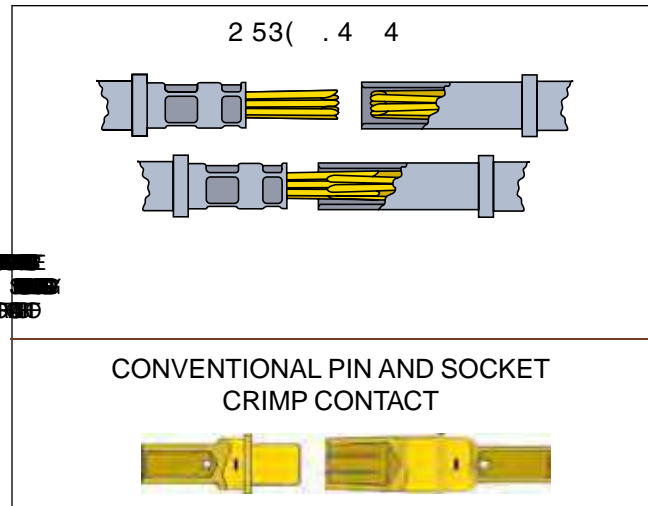
MARKETS

Rectangular Interconnects

For a Wide Range of Applications, Military

Amphenol's HDB³ High Density Brush Series with Tighter (.070 inch X .060 inch) Staggered Grid Spacing

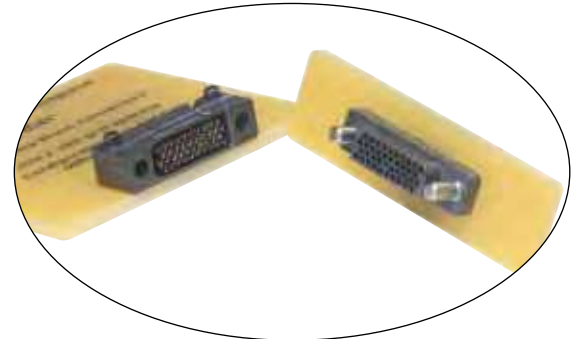
AMPHENOL'S BRUSH CONTACT - THE SUPERIOR CHOICE FOR BOARD LEVEL INTERCONNECTS



HDB³ Advantages over Competitive Connectors:

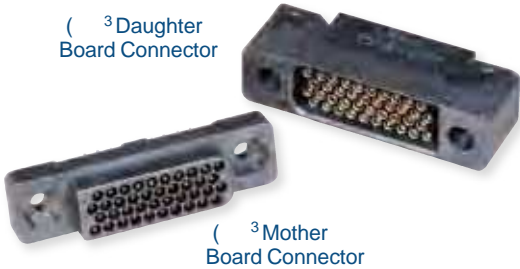
- Uses less board space
- Provides the durability and performance of the Brush contact

- 0 (. , (³ COMPARED TO COMPETITION			
Connector Features	Amphenol ()	()	Airborn RM4
Contact System	Brush		Pin & Socket
Durability, Mating Cycles	100,000	2,000	500
Contact Mating Forces (ounces)			
Mother Board	8	8	8
Daughter Board	8	8	8
Connector Width			

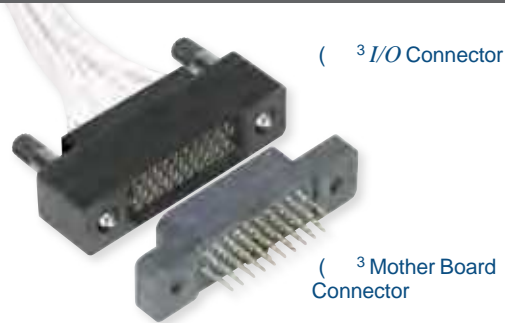


HIGH DENSITY STYLES

HDB³ Daughter Board/Mother Board



HDB³ I/O Connector



HDB³ Stacker



HSB³ High Speed

(3) Connectors
Gbps



38999

- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

HIGH SPEED

Fiber Optics

Contacts
Connectors
Cables

EMI Filter
Transient

26482
Matrix 2

83723 III
Matrix | Pyle

26500
Pyle

5015
Crimp Rear Release Matrix

22992
Class 1

Back-Shell
Others

Options
Others

- 38999
- III
- HD
- Dualok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

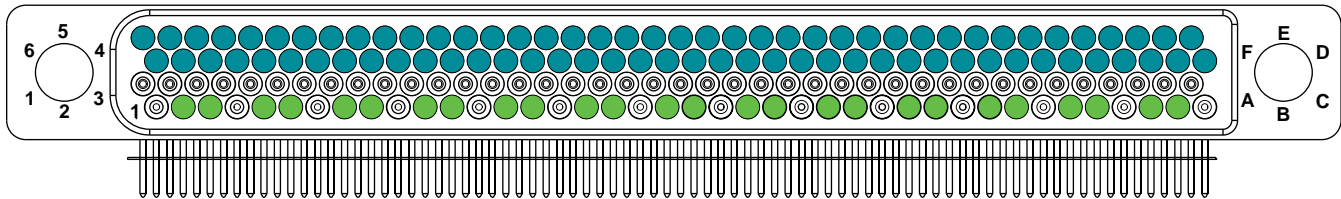
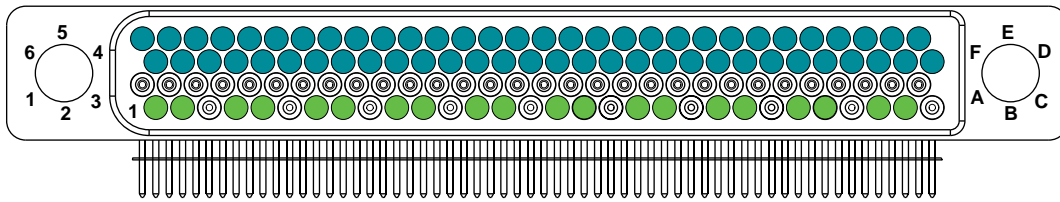
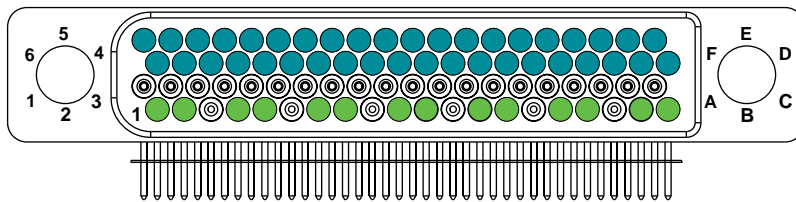
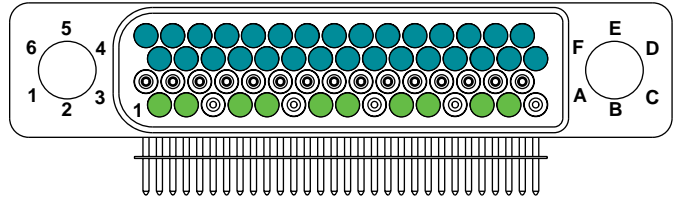
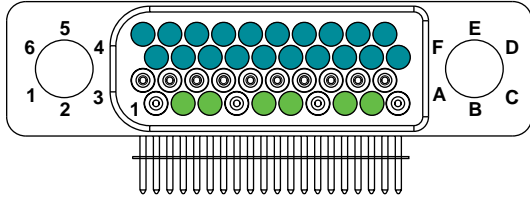
HSB³ - HIGH SPEED SERIES 6.250 GBS

████████████████████

██████████

³ mother board and daughter board bodies

s Contact an Amphenol sales engineer for validation results



CUSTOM DESIGN AVAILABILITY:

- KEY**
- ● 100 Ohm Differential Pair Contacts
(100 Ohm Differential contact pairs capable of 6.250 Gb/s data rates)
 - ⊙ Empty Contact Cavity
 - Standard Digital, Low Speed Signal Contacts

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

- EMI Filter Transient

- 26482 Matrix 2

- 83723 III Matrix | Pyle

- 26500 Pyle

- 5015 Crimp Rear Release Matrix

- 22992 Class I

- Back-Shells

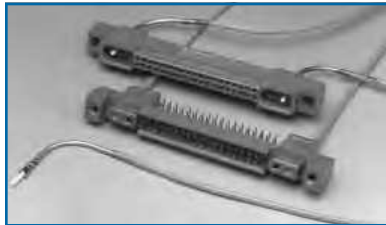
- Options Others

Rectangular Interconnects

For a Wide Range of Applications, Military

Hybrid Rectangular Connectors with Brush/Power/Coax/Fiber Optic Combinations

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
<p>Rectangular connectors for attachment to printed circuit boards</p> <p>Offers versatility of combining contact types and Brush contacts in one high density connector</p>	<p>M55302 type rectangular hybrid contact and shielded contacts meet M39029 standard</p> <p>Fiber optic terminations meet</p>	<p>Refer to page 572</p>	<p>Combinations of termination styles:</p> <p>(standard M39029 size 16 or 12; same as used in MIL-DTL-38999 Series II)</p> <p>max contacts - (M39029, size 16 and 12)</p> <p>(multi-mode size 16; same as used in MIL-DTL-38999 Series III)</p>	<p>Connector performance and brush contact performance is the same on page</p> <p>Force Rectangular performances of fiber optic terminations are the same as terminations used in multi-channel</p>

OPTIONAL FEATURES

- Shielding
- Shielded
- Shielded
- Shielded

MARKETS

- Defense
- Space

LRM Surface Mount Connectors with Brush Contacts

Reference Catalog 12-R3



Chevron Grid - Up to 4096



Staggered Grid - Up to 360



GEN-X Grid - Up to 472

APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
<p>Line replaceable modular interconnector contact densities, for attachment to printed circuit boards</p> <p>Bristle Brush contacts, consisting of multiple strands of high tensile strength that are bundled together to form a single contact</p> <p>LRM connectors are available in SEM-E and custom configurations</p>	<p>Uses Bristle Brush contact densities -), 4, Amphenol staggered grid LRM connector is the F-22 Avionics system connector</p>	<p>Modules: Surface Mount</p> <p>leads on each side</p> <p>be centered or off-center</p> <p>Backplanes: Available hole solder posts or through-hole</p> <p>Polarization: Insert arrangement controls mating</p> <p>4096 keying</p>	<p>Brush contact termination: PCB through-hole solder or solderless compliant into RATED</p> <p>Chevron Grid: Backplane termination: PCB through-hole solder or solderless compliant into RATED</p> <p>Staggered Grid: Backplane termination: PCB through-hole solder or solderless compliant into RATED</p> <p>GEN-X Grid: Backplane termination: PCB through-hole solder or solderless compliant into RATED</p> <p>Surface mount on PCB</p> <p>Surface pitch to rigid flex</p>	<p>Connector bodies are aluminum</p> <p>Superior performance configurations are capable of supporting data rates in excess of 10 Gbps</p> <p>Staggered and GEN-X Bristle Brush contacts provide superior performance reduction from conventional connectors</p> <p>contact life - over 20,000 cycles of mating and</p>



Variety of Rectangular Interconnection Products, including SEM-E and custom configurations

OPTIONAL FEATURES

- Shielding
- Shielded
- Shielded
- Shielded

MARKETS

- Defense
- Space

38999

- III
- HD
- Duallok
- II
- I
- SJT
- Accessories
- Aquacon
- Herm/Seal
- PCB

- HIGH SPEED
- Fiber Optics
- Contacts Connectors Cables

EMI Filter Transient

26482 Matrix 2

83723 III Matrix | Pyle

26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class 1

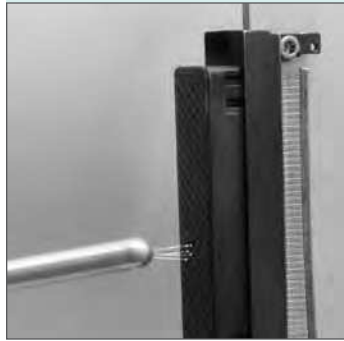
Back-Shells

Options Others

38999

LRM Connectors with ESD Protection

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
<p>Staggered style and GEN-X style</p> <p>These connectors utilize the Faraday cage principle to shunt electrostatic discharge events to the conductive shield of the connector is mounted, thus</p>	<p>Exceeds protection IEC 801-2 and -), 34</p>	<p>LRM connectors feature of ESD protection eliminate the need for discrete components (such as diodes) and maximizes PC</p>	<p>See termination information for LRM connectors</p>	<p>Ensures that all components are protected from electrostatic discharges between +6 and +6 Response time is instantaneous</p> <p>The ESD protection is provided by the connector in the unmated condition, making it ideal for</p>

OPTIONAL FEATURES

- MIL-DTL-38999 Series III
- Consult Amphenol for
- high voltage, high current discharge event to reside on

MARKETS

- DEFENSE
- AEROSPACE

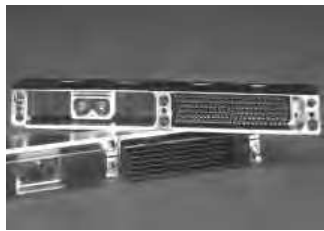
LRM Surface Mount Connectors with Fiber Optics, RF Modules, Power Supply Modules

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
<p>Line replaceable modular interconnect contact densities, for attachment to printed circuit</p> <p>flexibility of combining modules - fiber optics, shielded RF contacts one high</p>	<p>performance LRM hybrid contact arrangements</p>	<p>Same as for LRM</p>	<p>Combinations of:</p> <ul style="list-style-type: none"> Fiber Optic LRM - MIL-T-29504 type termini or MT ferrules (2-24 fiber lines per ferrule) RF Modules - coax contacts - size 16 M39029 type, size 12 for (ZOR) size 8 for DC-32 (ZHEP) contacts can be Module - custom 270VDC sections utilizing size 22D crimp or compliant pin termination size 16, 12 and 8 contacts for high current applica- 	<p>Connector performances and brush contact performances are the same as</p> <p>capable of providing corona-</p>

RF Modules



OPTIONAL FEATURES

- Back-Shell
- Options
- Others

MARKETS

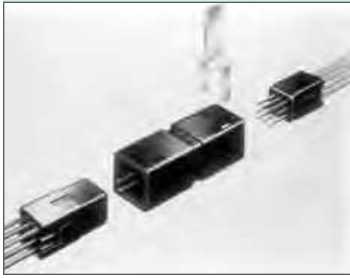
- DEFENSE
- AEROSPACE

Rectangular Interconnects

For a Wide Range of Applications, Military

Pyle LMS Modular Connectors

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
In-line splice connectors - simple, connection devices that incorporate LMD modules and	Supplements	3-piece assembly	Uses modules common to LMD	n TO

OPTIONAL FEATURES

MARKETS

Pyle LMD Modular Connectors

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
Rectangular interconnects comprised of housings, modules and contacts, designed to provide flexibility in the assembly of For attachment to designs for rack & panel or cable to	Designed for terminations and to eliminate costly PC board and associated	Linear module design - for rack & panel or cable to Bussing modules - Diode modules - sealed for protection; eliminate need for Relay modules - sealed or unsealed; eliminate need for	Modules incorporate crimp contacts in sizes 8, 16, 20 AND	n TO Durability: 250 cycles Module insertion and contacts are all ordered plastic provide increased resistance to industrial oils

OPTIONAL FEATURES

MARKETS

VME P0/J0 MT Connectors with Fiber Optics

Reference Catalog 12-R3



APPLICATION	STANDARDS/ REQUIREMENTS	COUPLING/ MOUNTING	CONTACT TERMINATION/ ARRANGEMENTS	PERFORMANCE ENVIRON./ELECT.
For attachment to VME-64X printed circuit board and Used in place of applicable	Tested to IEEE	Mount to standard VME64X cards and backplanes in the	Uses fiber optic	n TO 18 pulses 18 pulses axis, 3 axis 3 +6 P

OPTIONAL FEATURES

MARKETS

38999

III
HD
Dualok
II
I
SJT
Accessories
Aquacon
Herm/Seal
PCB

HIGH SPEED

Fiber Optics
Contacts Connectors Cables

EMI Filter Transient
26482 Matrix 2
83723 III Matrix | Pyle
26500 Pyle

5015 Crimp Rear Release Matrix

22992 Class I

Back-Shell

Options Others
