127 / HE8

The well proven technology

The 127 series is a medium-density range of multi-contact plug-in connectors for printed circuit boards. This range of 2.54 [.100] staggered grid, low profile connectors meets the common harsh environmental requirements.

AB

A wide range of fittings and guides, as well as numerous contact terminations, provide more flexibility to PCB designers.

A well-proven technology

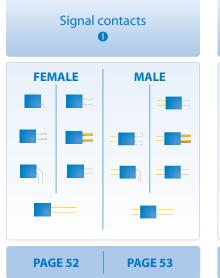
- Tha 27 ne is no a 24 ND by el grid pich tw 24 ND be wen rows, Avalland ows.
- The contact technology is based on the tuning fork and blade concept. Using advanced copper alloys provides optimized electrical conductivity as well as long-term mechanical reliability.

A large choice of attachments on Printed Circuit Boards

- Different styles, from 17 to 144 contacts with various terminations: straight, right angled 90°, crimp barrel, solder cup, SMT and wire-wrapping.
- Hybrid patterns, with a combination of 3 to 10 special cavities, permit the usage of coaxial, power contacts, as well as optical termini.

The 127 series connectors are available in 3 different versions: HE801 / HE804 / HE807

QUICK SELECTION GUIDE





Special contacts



Keying &

HE801
Round male contact
Standard molding size
HE804
Rectangular male contact
Molding smaller in size
HE807
Hybrid cavities

Connector type

The 127 series serves various markets, including:



Military avionics & airframe



Commercial avionics & airframe





Ground vehicle

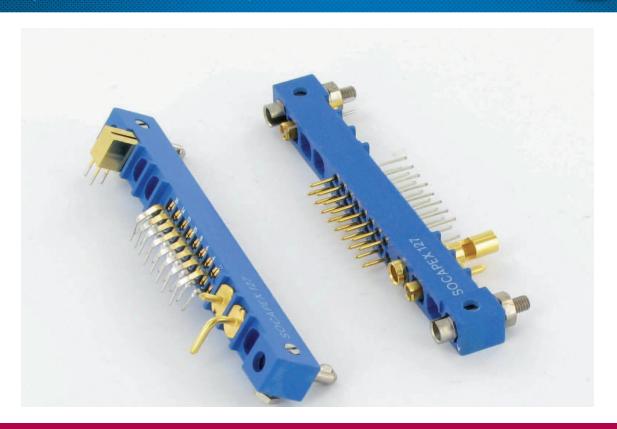


Industria

PAGE 51

This proven range of PCB connectors complies with numerous international standards:

NFC UTE 93424 HE801, HE804 & HE807 **BS9525** N0001, F0006, F0007 MIL-DTL-55302 140 to 155



Proven, reliable and robust connectors

18	p d	t	r a		98
Sign	al conta	cts			Q
Spec	ial cont	acts .			104
Fem	ale fittin	gs fo	r rece	eptacles	106
Male	fittings	for p	lugs	.	110
Турі	cal arran	igem	ents a	and layouts, signal connectors (HE801&HE804)	114
Турі	cal arran	igem	ents a	and layouts, hybrid connectors (HE807)	116
Tool	ing				119
Fittir	ngs & co	ntact	s con	mpatibility	D

127 / HE8 >>> GENERAL SPECIFICATIONS





2.54 [.100] staggered grid (1.27 [.050] offset), 2.54 [.100] between rows

AB

- Proven, reliable and robust rectangular PCB connectors
- **Numerous contact terminations and fittings**
- Hybrid patterns with power or coax contacts

Terminations





Standards

NFC UTE 93424 HE801, HE804 & HE807 N0001, F0006, F0007

Main characteristics

- Density: 0.11 cts / mm² [71 cts / inch²]
- 17 to 144 signal contacts
- 0 to 10 special contacts
- 3 A per signal contacts
- Fully compatible with all the standard connectors HE801, HE804 & HE807 on the market

Markets









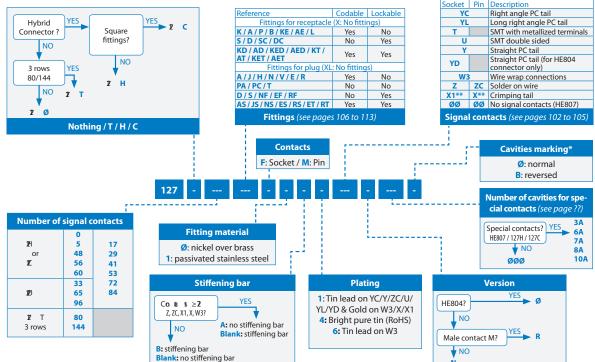
Main applications







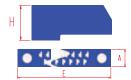
How to order



Asymmetrical arrangements with female contacts always have plug marking. Asymmetrical arrangements with male contacts always have receptacle marking. ** Not available for HE801 and HE807 connectors.

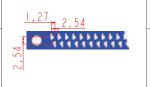
127 / HE8 >>> TECHNICAL SPECIFICATIONS

DIMENSIONAL CHARACTERISTICS



H = 7.9 [.311] for HE801 & HE807 connectors

to
ow ## to
ow ## to



FEMALE CONTACT



Female tuning fork contact

Compatible with other technologies

Material

CuSn9P (blade)

Plating

- Terminations: gold on W3, X & X1 and tin lead or bright pure tin on YD, Y, Z, YC, YL, T & U
- · Active contact area: gold

MARKING

Plug marking



Receptacle marking



MALE CONTACT



- For HE801 & HE807 connectors
 Contact section: 2 [.0004 inch²]
- 0,8
- For HE804 connectors
- Contact section: 0.48mm² [.0007 inch²]

Material: CuZn (blade)

Plating

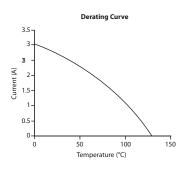
- Terminations: gold on W3, X & X1 and tin lead or bright pure tin on YD, Y, Z, YC, YL, T & U
- Active contact area: gold

MATERIALS

- Fittings: electroless nickel over brass or passivated stainless steel (303 ASTM)
- Plastic insert: thermoset DAP, 30% glass-fiber filled

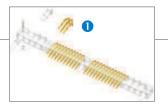
	HE801	HE804	HE807
MECHANICAL CHARACTERISTICS			
Backoff¹ (mm)	1 _{MAX} [.039]	1 _{MAX} [.039]	1 _{MAX} [.039]
Mating force per contact (N)	1.60 _{MAX}	1.60 _{MAX}	1.60 _{MAX}
Unmating force per contact (N)	0.14 _{MIN}	0.14 _{MIN}	0.14 _{MIN}
Durability cycles	500	500	Ð
Vibrations (20 to 2000 Hz) micro discontinuity 1µs	10 g	10 g	10 g
Shocks micro discontinuity 1µs	100 g	100 g	100 g
Recommanded tightening torques			
-fa dan' evs,ban'i	(3)	CS	G
- nuts for Ø 1.6mm screws, brass m.N	0.15	0.15	0.15
ENVIRONMENTAL CHARACTERISTICS			
Thermal shocks (°C)	-93	2 5	-5 5
Salt Spray hours	96	96	96
ELECTRICAL CHARACTERISTICS			
Current rating per contacts (A)	See derating curve	See derating curve	See deratin curve
Insulation resistance (G Ω)	5 _{MIN}	5 _{MIN}	5 _{MIN}
Contact resistance (m Ω)	2 _{MAX}	2 MAX	2 _{MAX}
Dielectric Withstanding Voltage (Vrms)	1 000	1 000	1 000
Capacitance between contacts (pF)	5 _{MAX}	5 _{MAX}	5 _{MAX}
Service voltage at 50 Hz (Vrms)	39)	29	Ð

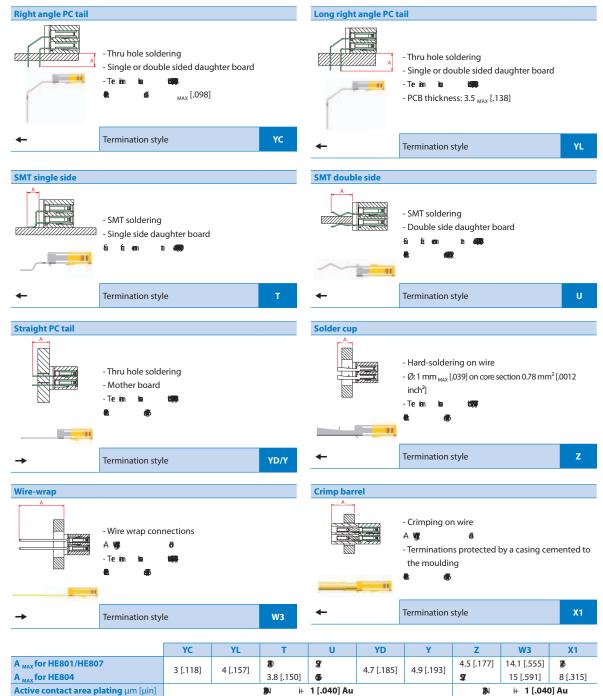
1: When both connectors are fully mated, the backoff is the maximum distance the connectors can be unmated while functioning properly



127 / HE8 >>> SIGNAL CONTACTS (**①**)

FEMALE CONTACTS





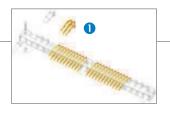
b or bright pure Sn for RoHS version All dimensions are given for information only and are in mm [inch], except as otherwise specified

i+ 0.2 [.008] Au

Termination plating μm [μin]

127 / HE8 >>> SIGNAL CONTACTS (**①**)

MALE CONTACTS







- Thru hole soldering
- Single or double sided daughter board
- Termination section: 0.35 x 0.35[.014 x .014]



•

Termination style

YC

Long right angle PC tail



- Thru hole soldering
- Single or double sided daughter board
- -Termination section: 0.35 x 0.35[.014 x .014]
- PCB thickness: 3.7 [.146]

Termination style

Straight PC tail



- Thru hole soldering
- Mother board
- -Termination section: 0.35 x 035 [.014 x .014]

■

16. Q

Termination style

SMT double side



- SMT soldering
- Double sided daughter board
- -bi ei en

t 👊

Termination style

U

Solder cup



- Hard-soldering on wire
- $\not\! O$: 1 $_{MAX}$ [.039] on core section 0.78 mm 2 [.0012inch 2]

A A

←

Termination style

zc

Wire-wrap



- Wire wrap connections
- ANGS 80
- a a

Terminatio

Termination style

W3

The mention → or ← means the contact removal direction.

Crimp barrel

- Crimping on wire

Termination style

- A V@7 Ø
- Terminations protected by a casing cemented to the moulding

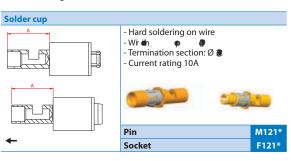
Х

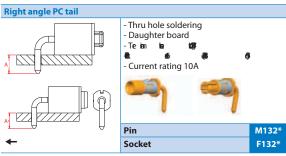
	YC		YL	Υ	U	ZC	W3	Х
A _{MAX} for HE801/HE807	20	#		5.05 [.199]	45	4.3 [.169]	15.05 [.593]	1 5
A _{MAX} for HE804	₹.	49	5 [.197]	20	9	3	8 [.315]	
Active contact area plating µm [µin]			(3)	⊬ 1[.040)] Au		. Mi i+	1 [.040] Au
Termination plating μm [μin]	ID N i	40	@ R	b or bri	ght pure Sn for	RoHS version	20 N i+	0.2 [.008] Au

127 / HE8 >>> SPECIAL CONTACTS (**②**)

POWER CONTACTS**



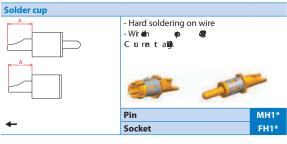


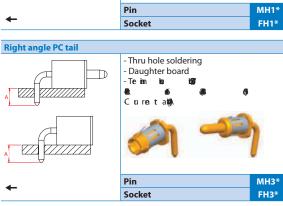


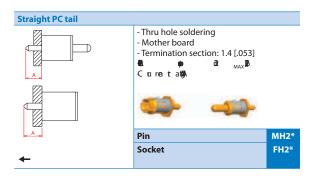


Current rating at 5V (A)	10
Maximum current rating at 5V (A)	15
Contact resistance (mΩ)	2 _{MAX}
Operating temperature rise (°C)	D _{MAX}
Contact retention (N)	50 _{MIN}
Insertion and extraction force per contact (N)	f ≤ F ≤ 15

Current rating 20A







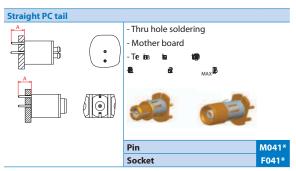
Current rating at 5V (A)	D
Contact resistance (mΩ)	2 _{MAX}
Operating temperature rise (°C)	D _{MAX}
Contact retention (N)	50 _{MIN}
Insertion and extraction force per contact (N)	f ≤ F ≤ 15

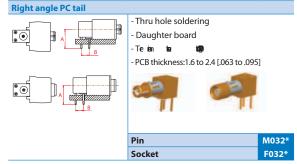
	M121/F121	M141/F141	M132/F132	MH1/FH1	MH2/FH2	MH3/FH3
A _{MAX}	88	3.8 [.150]	3.8 [.150]	8	45	3.8 [.150]
Central contact area plating µm [µin]	n]					
Other plating area µm [µin]			20 N i+ (0.4 [.016] Au		

127 / HE8 >>> SPECIAL CONTACTS (**②**)

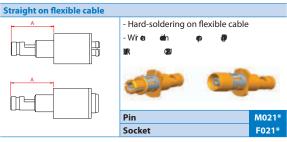
COAXIAL CONTACTS**











	COAXIAL CONTACTS
Impedance (Ω)	50
Voltage rating (Vrms)	180
Current rating (mA)	500
Contact retention (N)	50 _{MIN}
Frequency range (GHz)	0 to 1
Contact resistance (mΩ)	2 _{MAX}
SWR (at 1 GHz)	1.3 _{MAX}
Insertion and extraction force per contact (N)	1 ≤ F ≤ 15

OPTICAL TERMINI

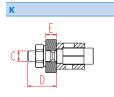
Consult us.

	M041/F041	M021/F021	M011/F011	M032/F032
A _{MAX}	3.8 [.150]	9	3	@
B _{MAX}				3 0
Central contact area plating µm [µin]		. John i+	1.2 [.047] Au	
Other plating area µm [µin]			0.4 [.016] Au	

* Coaxial contacts and power contacts have to be ordered separately against the here above part number. Example: F011 ** These contacts can be mounted in all types of connectors 127H-127C/HE807.

END FITTINGS FOR RECEPTACLES**

Codable & Non lockable fittings

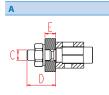


106

- Chassis or mother board
- Fixed receptacle Compatibility
- Female contact: 801 / 804 / 807
- Male contact: 807
- Nickel over brass*

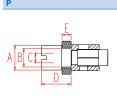
	EF	CF
HE 801/807	212	229
HE 804	201	202





- -Chassis or mother board
- -Fixed receptacle Compatibility
- Male contact: 801 / 804
- Nickel over brass*

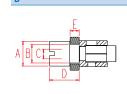
	EF	CF
HE 801	212	229
HE 804	201	202



- Chassis
- Floating receptacle

 Compatibility
 Female contact: 801 / 804
- Nickel over brass*

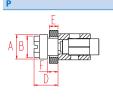
		CF.
HE 801	203	202
HE 804	203	202



- Chassis
- Floating receptacle **Compatibility** Male contact: 801 / 804

- Nickel over brass*

HE 801	203	202
HE 804	203	202

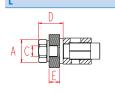


- Chassis
- Floating receptacle

Compatibility

- Female contact: 807 Male contact: 807
- Nickel over brass *

HE 807	226	202
	EF	CF



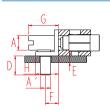
- Chassis or mother board
- With insulating washer

Compatibility

- Female contact: 804
- Nickel over brass *

IE 804	228	202
	EF	CF



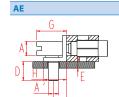


- Daughter board or board to board mating
- Free receptacle with bracket
- Connection board to board aligned with each other

Compatibility

- Female contact: 801 / 807 Male contact: 807
- Nickel over brass *

	EF	CF
HE 801	208	209
HE 807	208	208

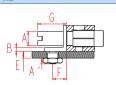


- Daughter board or board to board mating
- Free receptacle with bracket
- Connection board to board aligned with each other

Compatibility

- Male contact: 801
- Nickel over brass *

E 801	208	20
		-

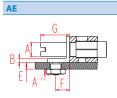


- Daughter board or board to board mating
- Free receptacle with bracket
- Connection board to board aligned with each other

Compatibility

- Female contact: 804
- Nickel over brass *

HE 804	209	209
	EF	CF



- Daughter board or board to board mating
- Free receptacle with bracket
- Connection board to board aligned with each other

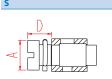
Compatibility

- Male contact: 804
- Nickel over brass *

	EF	CF
HE 804	209	209

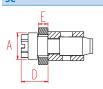
END FITTINGS FOR RECEPTACLES**

Non codable & lockable fittings



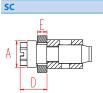
- Cables, free receptacle
- Locking device-extractor tapped female fitting
- Locking and unlocking shall be carried out simultaneously at both ends
- Compatibility
- Female contact: 801 / 804
- Nickel over brass *

	EF	CF
HE 801	219	229
HE 804	220	202



- Cables, free receptacle Flex, locking device-extractor
- Compatibility
- Female contact: 804
- Nickel over brass *

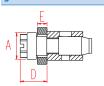
HE 804	207	202
	EF	CF



- Chassis, floating receptacle
- Locking device-extractor
 Compatibility

- Female contact: 801
- Nickel over brass *

	EF	CF
HE 801	213	229



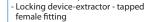
- Chassis, floating receptacle
- Locking device-extractor tapped female fitting
- Locking and unlocking shall be carried out simultaneously at both ends

 Compatibility
- Female contact: 807
- Male contact: 807
- Nickel over brass *

HE 807	213	229
	EF	CF



- Cables, free receptacle

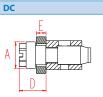


- Locking and unlocking shall be carried out simultaneously at both ends

Compatibility

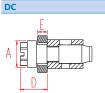
- Male contact: 801/804
- Nickel over brass *

	EF	CF
HE 801	219	229
HE 804	220	202



- Cables, free receptacle Flex, locking device-extractor
- Compatibility
- Male contact: 804
- - Nickel over brass *

HE 804	207	202



220

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4.7 _{MAX} [.185]

Α

D

220

- Chassis, floating receptacle Locking device-extractor
 Compatibility
 Male contact: 801

HF 801

- Nickel over brass *

	11200	, ·		_			
)	SC	DC	SC	DC	S		
	207	207	213	213	213		
	Øs B						

6 _{MAX} 🛭

2 _{MAX} [.083]

	K 212/201 A 212/201	P 203 B 203	P 226	L 228	KE 208 AE 208	KE 209 AE 209
Α	KZ1Z/Z01 KZ1Z/Z01	Ø6 B	Ø6 B	Hex 5 [.197]	Ø 3.5 [.138]	Ø 3.5 [.138]
A'		_	_		BN B B	Hex 4 [.157]
В		Ø 4.5 [.177]	Hex 4.5 [.177]			1 MAX [.039]
C	5 ∕/ (3)	⊠ / @		DS/1 DB		
D	6 _{мах} ፮	2 🛭	9 🛭	6 _{мах} ቜ	4.6 [.181]	
E	3 MAX 🌃	2 🛭	2 MAX [.083]	2.7 MAX [.106]	Б 🗸	@
F			2 D		3 9	3 P
G					2 MAX 🔀	2 MAX B
H					5 []"	

2

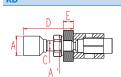
** To order the fitting alone: HE8C + xxx **EF:** End Fitting / **CF:** Central Fitting

AB

127 / HE8 >>> FEMALE FITTINGS (**③**)

END FITTINGS FOR RECEPTACLES**

Codable & lockable fittings

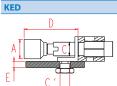


- Chassis or mother board
- Fixed receptacle
- Locking ensuring resistance to vibrations

Compatibility

- Female contact: 801 / 804 / 807
- Male contact: 807
- Nickel over brass*

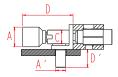
	EF	CF
HE 801 / 807	221	229
HE 804	221	202



- Daughter board
- Free receptacle with bracket
- Connection board to board aligned with each other
- Locking ensuring resistance to vibrations Compatibility
- Female contact: 804
- Nickel over brass*

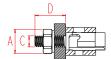
	EF	CF
HE 804	223	209

KED



- Daughter board
- Free receptacle with bracket
- Connection board to board aligned with
- Locking ensuring resistance to vibrations Compatibility
- Female contact: 801 / 807
- Male contact: 807
- Nickel over brass *

	EF	CF
HE 801	224	209
HE 807	224	208



- Chassis or mother board
- Fixed receptacle
- Quarter turn locking on plug side

Compatibility

- Female contact: 801 / 804/ 807
- Male contact: 807
- Passivated stainless steel only*

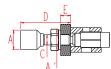
	EF	CF
HE 801/807	422	429
HE 804	422	402



- Daughter board or board to board mating
- Free receptacle
- Quarter turn locking on plug side
- Compatibility
- Female contact: 801/804/807
- Male contact: 807
- Passivated stainless steel only

LIE 004 /004 /007	EF	CF
HE 801/804/807	425	425

AD



- Chassis or mother board
 - Fixed receptacle
 - Locking ensuring resistance to vibrations

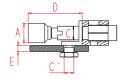
Compatibility

6

- Male contact: 801 / 804
- Nickel over brass*

	EF	CF
HE 801 / 804	221	229
HE 804	221	202

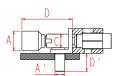
AED



- Daughter board
- Free receptacle with bracket
- Connection board to board aligned with each other
- Locking ensuring resistance to vibrations Compatibility
- Male contact: 804
- Nickel over brass*

HE 804	223	209

AED



- Daughter board
- Free receptacle with bracket
- Connection board to board aligned with each other-Locking ensuring resistance to vibrations

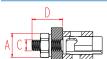
Compatibility

- Male contact: 801
- Nickel over brass *

- Mickel Over Drass	
	E

HE 801	224	209

AT



- Chassis or mother board
- Fixed receptacle
- Quarter turn locking on plug side Compatibility
- Male contact: 801/804
- Passivated stainless steel only

	EF	CF
HE 801	422	429
HE 804	422	402



- Daughter board or board to board mating
- Free receptacle
- Quarter turn locking on plug side

Compatibility

- Male contact: 801/804
- Passivated stainless steel only

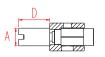
	EF	CF
HE 801/804	425	425

EF: End Fitting / **CF:** Central Fitting

CENTRAL FITTINGS FOR RECEPTACLES**



229



Compatibility

- Female contact: 801 / 807
- Male contact: 801/807
- EF: K/A/P/B/S/D/SC/DC/KD/AD
- Nickel over brass *

HE 801/807

229



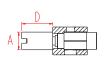
Compatibility

- Female contact: 804
- Male contact: 804 EF: K/A/P/B/L/S/D/SC/DC/KD/AD
- Nickel over brass *

HE 804

202

429



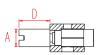
- Compatibility Female contact: 801 / 807
- Male contact: 801 / 807
- EF: KT / AT
- Passivated stainless steel *

HE 801 / 807

429

402

202

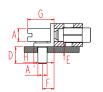


- Compatibility
 Female contact: 804 Male contact: 804
- EF: KT / AT
- Passivated stainless steel *

HE 804

402

208



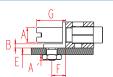
- Compatibility
 Female contact: 801 / 807
 Male contact: 801 / 807
 EF: KE / AE / KED / AED

Nickel over brass *

HE 801 / 807

208

209



Compatibility

- Female contact: 804 Male contact: 804 **EF:** KE / AE / KED / AED
- Nickel over brass *

HE 804

209

425

Compatibility

- Female contact: 801 / 804 / 807
- Male contact: 801 / 804 / 807
- EF: KET / AET
- Passivated stainless steel *

HE 801/804/807

224 208

	202 / 229 / 429 / 402	208	209	425
Α	Ø 4 [.157]	Ø 3.5	[.138]	Hex 5 [.197]
В			1 _{MAX} [.039]	
D	7 _{MAX} B	4.6 [.181]		4.1 _{MAX} [.161]
E		б 8		
F		3 9	39	
G		2 MAX	B	
Н		8		
A'		-	Hex 4 [.157]	Hex 4 [.157]
С				

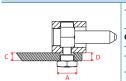
	KD /	AD 221	KED / AED 223	KED / AED 224	KT / AT 422	KET / AET 425
Α	Ø 5 [.197]		Ø5	[.197]	Hex 5	[.197]
С			Ø 3.5 [.138]	Ø 3.5 [.138]		
D	X HE804 = 18 MAX [.709] Y HE804 MAX Z HE804 = 14 MAX [.551]	X HE801/807 = 17 MAX [.669] Y HE801/807 = MAX [.988] Z HE801/807 = 13 MAX [.988]	Z = 14 _{MAX} [.551]	Z = 13 _{MAX} B 2	HE804: 7 _{MAX} ® HE801 / 807: 6 _{MAX} ®	4.1 _{MAX} [.161]
D'				4.6 [.181]		
E	2 M	AX [B]	Б 🤻	0		
A'	Hex	5 [.197]				Hex 4 [.157]
C′			Ø1.6 [0.63]			

*To order the fitting alone: HE8C + xxx

EF: End Fitting / **CF:** Central Fitting

END FITTINGS FOR PLUGS**

Non codable & Non lockable fittings

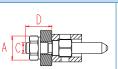


- Daughter board or extension board
- single or double sided
 Free plug with plated thru holes
 Compatibility
 Female contact: 801 / 804 / 807

Male contact: 807

Nickel over brass *

HE 801/804/807 102 102



- Chassis or mother board
- Board to board, board to chassis, parallel to one another

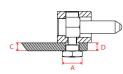
Compatibility

- Female contact: 801/804/807 Male contact: 801/804/807
- Nickel over brass *

	EF	CF
HE 801/807	118	129
HE 804	111	113



PC



- Daughter board or extension board single or double sided

Male contact: 801 / 804

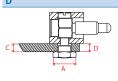
- Free plug with plated thru holes

 Compatibility
- Nickel over brass *

HE 901 /90/	102	10
	EF	CF

	PA / PC	Т
Α	Hex 4 [.157]	Hex 5 [.197]
С	£ ₫ \$ ₫ \$	B/1 B
D	1.3 _{MAX} [.051]	6 _{MAX} ፮

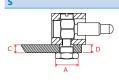
Non codable & Non locking fittings



- Daughter board single or double sided
- Free plug with plated thru holes Lockable on receptacle side

- Compatibility
 Female contact: 801/804/807
 Male contact: 807
- Nickel over brass *

	EF	CF
HE 801/804/807	103	102



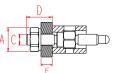
- Daughter board single or double sided
- Free plug with plated thru holes
- Lockable on receptacle side

Compatibility

- Male contact: 801/804
- Nickel over brass *

	EF	CF
HE 801/804	103	102



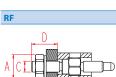


- Chassis or mother board
- Board to board, board to chassis, parallel to one another, board to cable or chassis
- to cable

 Lockable on receptacle side

- Compatibility
 Female contact: 801 / 804 / 807
 Male contact: 807
- Nickel over brass *

	2.5	GF.
HE 801/807	119	129
HE 804	112	113

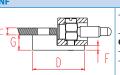


- Chassis or mother board
- Free plug with plated thru holes
- Lockable on receptacle side

Compatibility

- Male contact: 801 / 804
- Nickel over brass *

	EF	CF
HE 801	119	129
HE 804	112	113



- SMT daughter board aligned with connector centerline
- Lockable on receptacle side **Compatibility** Female contact: 801 / 804

- Male contact: 801 / 804 Nickel over brass *

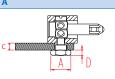
	EF	CF
HE 801	116	114
HF 804	108	104

		D	/ S	EF	RF	NF
Α		Hex 4	[.157]	Hex 5	[.197]	
С	Б	4	Q	158/1	[.197]	1.6 [.063]
D		1.3 _{MAX}	[.051]	6 _{MAX}	B	HE801 13.9 _{MAX} [.547]
F				3 MAX	B	1.1 [.043]
G						3.5 [.138]

EF: End Fitting / CF: Central Fitting

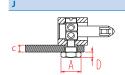
END FITTINGS FOR PLUGS**

Codable & Non lockable fittings



- Daughter board single or double sided Free plug with plated thru holes Compatibility
- Female contact: 801 / 804 / 807
- Male contact: 807
- Nickel over brass *

HE 801/804/807	101	102
HE 601/ 604/ 607	101	102

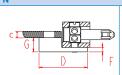


- Daughter board single or double sided Free plug with plated thru holes Compatibility

Male contact: 801 / 804

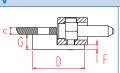
Nickel over brass *

HE 801 /804 101 102



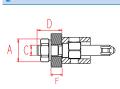
- SMT daughter board aligned with connector centreline
- Free plug with plated thru holes Compatibility
- Female contact: 801 / 804
- Male contact: 801 / 804
- Nickel over brass *

		G.
HE 801	115	114
HE 804	106	104



- SMT daughter board aligned with connector centreline
- Free plug with plated thru holes **Compatibility**
- Female contact:: 801 / 804
- Male contact: 801 / 804
- Nickel over brass *

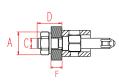
	EF	CF.
HE 801	114	114
HE 804	104	104



- Chassis or mother board
- Board to board, board to chassis **Compatibility**

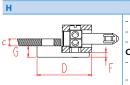
- Female contact: 801/804/807
- Male contact: 807
- Nickel over brass *

	EF	CF
HE 801 /807	117	129
HE 804	110	113



- Chassis or mother board (board to board, board to chassis)
- Compatibility
- Male contact: 801 / 804
- Nickel over brass *

	EF	CF
HE 801	117	129
HE 804	110	113



- SMT daughter board
- Offset from connector centreline
- Free plug with plated thru holes
- Compatibility
- Female contact: 804
- Nickel over brass *

	EF	CF
HE 804	107	105

	A	J	N	V	E	R	Н
Α	Hex 4	[.157]			Hex 5	[.197]	
C	5 [0.63 t	a o 0.94]	1.6	[0.63]	D\$/1	8	1.6 [0.63]
D	D 1.3 _{MAX} [.051]		HE801 13 ∰2	3.9 _{MAX} [.547] _{MAX} [.480]	6 _{MAX} 5		13.05 _{MAX} [.514]
F			1.1	[.043]	3 MAX	B	1.1 [.043]
G			3.5	[.138]			2 B

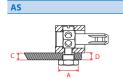
To order the same fitting in passivated stainless steel, change the "1" in the HE8 reference to a "3" (1xx => 3xx)

** To order the fitting alone: HE8C + xxx

EF: End Fitting / **CF:** Central Fitting

END FITTINGS FOR PLUGS**

Codable & lockable fittings



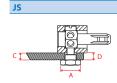
- Daughter board single or double sided
- Free plug with plated thru holes Lockable on receptacle side

Compatibility

- Female contact: 801 / 804 / 807
- Male contact: 807
- Nickel over brass *

HE 801/804/807	124	102
	EF	CF



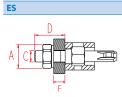


- Daughter board single or double sided - Free plug - with plated thru holes
- Lockable on receptacle side

Compatibility

- Male contact: 801 / 804
- Nickel over brass *

HE 801 /804	124	102
	EF	CF
THERET OVER DIGGS		



Chassis or mother board

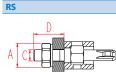
Board to board, board to chassis, parallel to one another, board to cable or chassis to cable

Lockable on receptacle side

Compatibility

- Female contact: 801/804/807
- Male contact: 807
- Nickel over brass *

	EF	CF
HE 801	125	129
HE 804	125	113



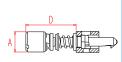
Chassis or mother board

- Board to board, board to chassis, parallel to one another, board to cable or chassis to cable
- Lockable on receptacle side

Compatibility

- Male contact: 801 / 804
- Nickel over brass *

	EF	CF
HE 801	125	129
HE 804	125	113

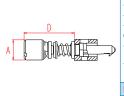


- Cable to board or cable to chassis
- Quarter turn locking

- Dimensions given in reset position **Compatibility**

- Female contact: 801/804/807
- Male contact: 807
- Passivated stainless steel only

	EF	CF
HE 801/807	327	329
HE 804	327	313



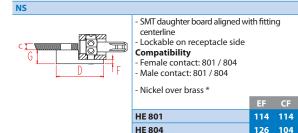
- Cable to board or cable to chassis
- Quarter turn locking

Dimensions given in reset position

Compatibility

- Male contact: 801/804
- Passivated stainless steel only

	EF	CF
HE 801	327	329
HE 804	327	313



	AS		JS	ES	RS	ET	RT	NS		
Α	A Hex 4		Hex 4 [.157]		Hex 5 [.197]					
c		3 t	a o .094]	158/1	8			1.6 [.063]		
D	1.3	MAX	[.051]	7 _{MAX} [.276]		7 _{MAX} [.276]		16 _{MAX}	[.630]	HE801 13.9 _{MAX} [.547]
F				3 M	AX [#]			1.1 [.043]		
G								3.5 [.138]		

EF: End Fitting / **CF:** Central Fitting

CENTRAL FITTINGS FOR PLUGS**

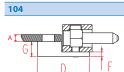


114

Compatibility

- Female contact: 801 Male contact: 801
- N/V/NF/NS
- Nickel over brass *

HE 801



Compatibility

- Female contact: 804 Male contact: 804
- N/V/NF/NS
- Nickel over brass *

HE 804

129

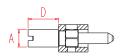
Compatibility

- Female contact: 801 / 807
- Male contact: 801 / 807
- E/R/T/EF/RF/ES/RS
- Nickel over brass *

HE 801/807

129

113



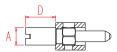
Compatibility

- Female contact: 804
- Male contact: 804
- E/R/T/EF/RF/ES/RS

Nickel over brass *

HE 804 113

329



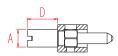
Compatibility

- Female contact: 801/807 Male contact: 801/807
- ER / RT

-Passivates stainless steel *

HE 801/807

313

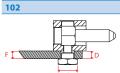


Compatibility

- Female contact: 804 Male contact: 804
- ER / RT

- Passivated stainless steel *

HE 804

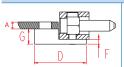


- Compatibility
 Female contact: 801 / 804 / 807
 Male contact: 801 / 804 / 807
 A / J / PA / PC / D / S / AS / JS

- Nickel over brass *

HE 801/804/807

105



Compatibility

- Female contact: 804
- Nickel over brass *

HE 804

105

	114	104	129	113	329	313	102	105
Α	1.6 [.	.063]		Ø 4	Hex 4 [.157]	1.1 [.043]		
D	13.9 _{MAX} [.547]	2 _{MAX} [.480]	7 _{MAX} B				1.3 _{MAX} [.051]	2 _{MAX} [.480]
F	1.1 [.	043]					f @ [.063 to .094]	1.6 [.063]
G	3.5 [.	514]						15

102

*To order the same fitting in passivated stainless steel, change the "1" in the HE8 reference to a "3" (1xx => 3xx)

*To order the same fitting in nickel over brass, change the "3" in the HE8 reference to a "1" (3xx => 1xx)

^{**} To order the fitting alone: HE8C + xxx

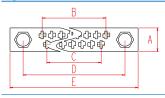
127 / HE8 >>> HE 801 & HE 804

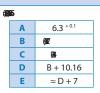
TYPICAL ARRANGEMENTS



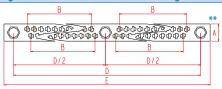
n indicates the total number of signal contacts

Signal contacts on 2 rows without central fitting*



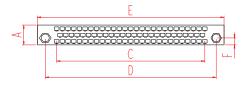


Signal contacts on 2 rows with central fittings *



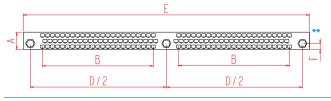
178	
Α	6.3 +0.1
В	(n-4) X 0.635
D	2 X B 🦚
E	≈ D + 7

Signal contacts on 3 rows without central fittings *



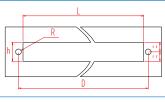
	n = 80
Α	8.94 (female connector) or 8.55 (female connector)
C	66.04
D	76.3 _{MAX}
E	83.4 _{MAX}
F	3.1

Signal contacts on 3 rows with central fittings *



n = 144						
8.4 _{MAX}						
22						
137.16						
144.36 _{MAX}						
3.1						

Panel drilling*



- Receptacle with A-AD-AT fittings or plug with R-RF-RS-T fittings with male contact W3-ZC-X
- Receptacle with K-KD-KT-L fittings or plug with E-EF-ES-T fittings with female contact W3-Z

D	See above					
L	≈ D - 4.6					
h	9.5 _{MIN}					
R	Ø MIN Ø 0.2					

- R L
- Receptacle with B fitting and male contact W3-ZC-X
- Receptacle with P fitting and female contact W3-Z

D	See above				
L	≈ D - 4.6				
h	9.5 _{MIN}				
R	⊕ Ø0.2				

* in mm: 1mm = 0.03937 inch

** The standard version presents a stiffening bar with W3-ZC-Z contacts and no stiffening bar with YC-V-Y-YD-X contacts. Put an A in the part number code to have no stiffening bar on the connector with YC-U-Y-YD-X contacts.

127 / HE8 >>> HE 801 & HE 804

LAYOUTS

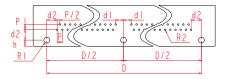
The boards are shown from the connector side.

The drawings show various footprints for connectors with a central attachment on board.

ne teste to the etect by

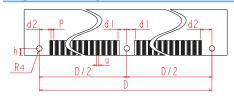
All contacts outputs are equidistant. For daughterboard, the first contact's marking is indicated for reference only.

Daughterboard drilling for YC contact*



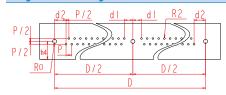
- Receptacle with KET-AET fittings or plug with A-D-AS-PA-J-S-JS-PC fittings
- YC (male and female contact)

Daughterboard drilling for U contact*



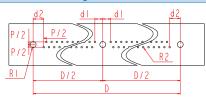
- Plug with H-N-NF-NS-V fittings
- U (male and female contact)

Daughterboard drilling for YC contact*



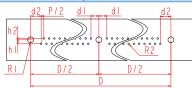
- Receptacle with KE-KED-AE-AED fittings
- YC (male and female contact)

Motherboard drilling for Y contact (male and female)*



- Receptacle with A-AD-AT fittings or plug with R-RF-RS-T fittings
- Y (male and female contact)

Motherboard drilling for YD contacts (socket only)*



- Receptacle with K-L-KD-KT fittings or plug with E-EF-ES-T fittings
- YD (female contact only)

D	d ₁	d ₂	р	p /2	h	h ₁	h ₂	h ₄	R _o	R ₁	R ₂	R_4	u
See above	3.81 [.150]	5.08 D	3 [.100]	1 [.050]	3 _{MAX} [.118]	1.9 [.075]	0.64 5	8 _{мах} [.315]	Ø 1.8 _{MIN} [.071]	Ø 2.85 _{MIN} 12 Ø 0.2	Ø 0.75 _{MIN} [.030] Ø 0.2	Ø _{MIN} [.094]	[.063

* in mm: 1mm = 0.03937 inch

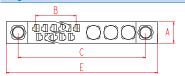
127 / HE8 >>> HE 807

TYPICAL ARRANGEMENTS

n indicates the total number of signal contacts h indicates the total number of hybrid contacts



n signal contacts + 3 cavities without central fittings*

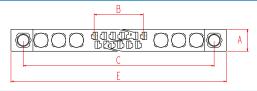


- Asymmetrical arrangements with female contacts always have plug marking
- Asymmetrical arrangements with male contacts always have receptacle marking

•	#B
•	h = 3

В	(107
D	(MB)
Е	D + 7

n signal contacts + 6 cavities without central fittings*





В	92 2
D	
E	D + 7

n signal contacts + 3 cavities with central fittings*

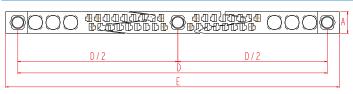


- Asymmetrical arrangements with female contacts always have plug marking
- Asymmetrical arrangements with male contacts always have receptacle marking

•	h	= 3	
	Α		

Α		6.3	
D	(III)		
Е		D + 7	

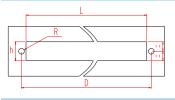
n signal contacts + 6 cavities with central fittings*



h	=	É

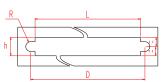
Α		6.3+0.1	
D	(88)		
Е		D + 7	

Panel drilling



- Receptacle with K-KD-KT fittings or plug with E-EF-ES fittings and male contacts W3-ZC-X and special contacts
- Receptacle with K-KD-KT fittings or plug with E-EF-ES fittings and female contacts W3-ZC-X1 and special contacts

D	See above							
L	D - 4.6							
h	9.5 _{MIN}							
	Ø 3							
R	♦ Ø0.2							



- Receptacle with P fitting with male contacts W3-ZC-X and special
- Receptacle with P fitting with female contact W3-ZC-X1 and special contacts
- EE0/1

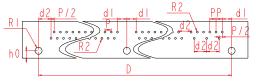
D	See above							
L	D - 4.6							
h	9.5 _{MIN}							
R	Ø 9 (4) Ø 0.2							

* in mm: 1mm = 0.03937 inch

127 / HE8 >>> HE 807

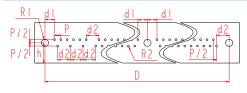
LAYOUTS COAXIAL CONTACTS

Daughterboard drilling YC + F032/M032 contacts*



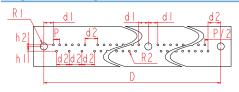
- Receptacle with KET fittings or plug A-D-AS-PA
 - s 🛲 s
- oa Ma 🛊

Daughterboard drilling YC + F032/M032 contacts*



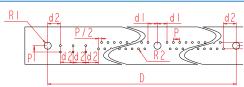
- Receptacle KE
 - Y& a
- o at finds
- .

Daughterboard drilling YC + F032/M032 contacts*



- Receptacle IE
 - Y& 🚵
- o to 🛍
- .

Motherboard drilling Y + F041/M041 contacts*



- Receptacle with K-KD-KT fittings and plug E-EF-ES-T fittings.
- Y & coaxial F041 / M041 contacts (male & female contacts)

Contact F041/M041

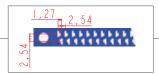


D	d ₁	d ₂	р	p _{/2}	h _o	h ₁	h ₂	R ₁	R ₂	h
See above	3.81 [.150]	5.08 D	3 [.100]	½ [.050]	3 _{MAX} [.118]	1.9 [.075]	6	Ø 2.85 _{MIN} Ø 0.2	Ø 0.75 _{MIN} Ø 0.2 [.030]	9.35 [.368]

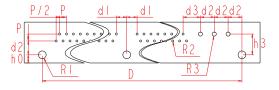
* in mm: 1mm = 0.03937 inch

127 / HE8 >>> HE 807

LAYOUTS. POWER CONTACTS.

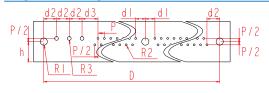


Daughterboard drilling YC + FH3/MH3 & F132/M132



Receptacle with KET fitting & plug with A-D-AS-PA fittings

Daughterboard drilling YC + FH3/MH3 & F132/M132

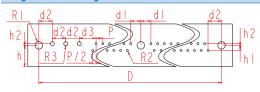


Receptacle with KE fitting

Y**©**

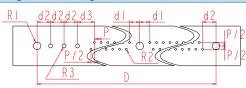
o t to

Daughterboard drilling YC + FH3/MH3 & F132/M132



Receptacle with IE fitting

Daughterboard drilling Y + FH2/MH2 & F141/M141



Ð K1fi bby M141 contacts (male & female)

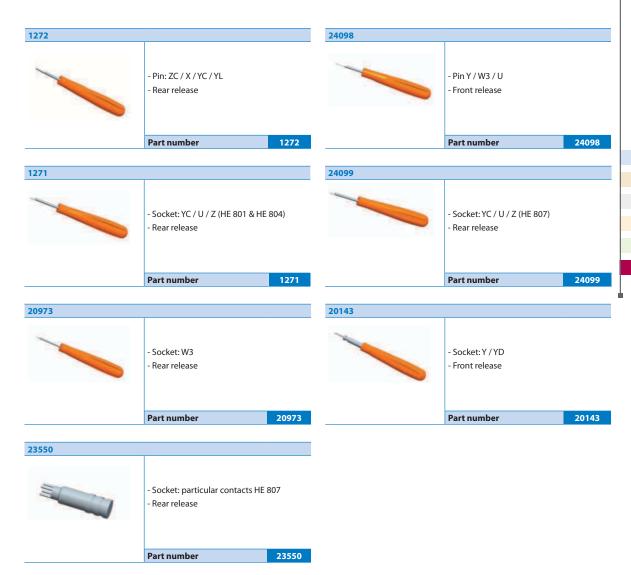
-Tithy

M141 contacts (male & female)

D	d ₁	d ₂	d ₃	р	p /2	h _o	h ₁	h ₂	h ₃	R ₁	R ₂	R ₃	h
See above	3.81 [.150]	5.08 D	6.35	3 4 [.100]	½ [.050]	3 _{MAX} [.118]	1.9 [.075]	0.64 5	72 [.300]	Ø 2.85 _{MIN}	Ø 0.75 _{MIN}	Ø 1.5 _{MIN}	9.35 [.368]

127 / HE8 >>> TOOLING

REMOVAL TOOLS



CRIMPING TOOLS



127 / HE8 >>> FITTINGS & CONTACT COMPATIBILITIES

HE801																		
COMPATIBLE MALE FITTINGS Connector with male contacts										FEMALE FITTING RECEPTACLE								COMPATIBLE MALE FITTINGS Connector with female contacts
										AET	Х	Х						
RT							Х	X	X	-				.,			.,	ET
		X	Х	X	X					AT KT				Х	Х	Х	Х	
		^	^	^	^					AED	Х	Х						
JS							Х	Х	Х									AS
NS										AD				Х	Х	Х	Х	NS FC
RS		Х	Х	Х	Х					KD								ES
S										DC				Х	Х	Х	Х	D
NF		Х	Х	Х	Х					SC					. v		. v	NF
RF		Х	Х	Х	Х					D S				Х	Х	Х	Х	EF
		A	A	A	A					i i								_
J										AE	Х	Х	Х					A
PC N							Х	Х	Х	KE								PA N
V										В				X	X	X	X	v
R	Х	X	Х	Х	Х					P								E
Т	Х	Х	Х	X	X					A K				Х	Х	Х	Х	Т
FEMALE CONTACTS		X1	Z	W3	Y	U	Т	YL	YC	-	YC	YL	U	Υ	W3	ZC	Х	MALE CONTACTS
					Ė		Х	Х	Х	_								
										J	Х	Х						
							Х	Х	Х	PA								
Α										PC	X	Х						к
В										H								P
AE						X				N V			X					KE
	Х	Х	Х	Х	Х	^				Ĕ			^					
										R				Х	Х	Х	Х	
	X	Х	Х	Х	Х					Т				Х	Х	Х	Х	
							Х	Х	Х	D								
D										S	Х	Х						s
DC	v	V	V	V	V	Х				NF			Х					sc
	X	Х	Х	Х	Х					EF RF				Х	Х	Х	Х	
							Х	Х	Х					^	A	^	Α	
AD										JS	Х	Х						
AD AED						X				NS			X					KD KED
ALD	X	X	Х	Х	Х					ES								KLD
		V	. v	v						RS				Х	Х	Х	Х	
AT AET		Х	X	X						ET RT					Х	Х	Х	KT KET
COMPATIBLE FEMALE FITTINGS Connector with male contacts										MALE FITTING PLUG								COMPATIBLE FEMALE FITTINGS Connector with female contacts

127 / HE8 >>> FITTINGS & CONTACT COMPATIBILITIES

HE804																		
COMPATIBLE MALE FITTINGS Connector with male contacts										FEMALE FITTING RECEPTACLE								COMPATIBLE MALE FITTING Connector with female contacts
										AET	Х	Х						
RT							X	Х	X	KET								ET
NI .										AT				Х	Х	Х	Х	
		Х	Х	Х	Х					KT		. V						
JS							Х	Х	X	AED KED	X	Х						AS
NS							Α	Α	A	AD				Х	Х	Х	Х	NS
RS		Х	Х		Х					KD								ES
S										DC				Х	Х	Х	Х	D
NF		X	X	X	X					SC								NF
RF										D				Х	Х	Х	Х	EF
	Х	X	X	X	X					S								
J	^	Х	Α	Х	Х					L AE	Х	Х						Α
PC							Х	Х	Х	KE		А						PA
N										В				Х	Х	Х	Х	N
V	Х	Х	Х	Х	Х					P								V
R T										A				X	X	X	X	E T
	Х	Х	Х	Х	Х					K								
FEMALE CONTACTS	YD	Х1	Z	W3	Υ	U	T	YL X	X		YC	YL	U	Υ	W3	ZC	Х	MALE CONTACTS
							Х	^	^	A J	Х	Х						
							Х	Х	Х	PA		Α						
										PC	Х	Х						
A B						Х				Н								K P
AE						X				N			X					KE
712						Х				. v			Х					
	X	Х	X	Х	Х					E				Х	Х	Х	Х	
	Х	Х	Х	Х	24													
										R								
			Λ	Х	Х		Х	Х	Х	Т				X	X	Х	X	
_			Α		Х		Х	X	X		Х	Х						
D			Α		X	X	Х	X	X	T D	Х	Х	X					S
D DC	X	Х	X	X	X	Х	X	X	X	T D S	X	х	X					S SC
	X	Х				X				T D S NF EF RF	X	Х	X					
	X	X				X	X	X	X	T D S NF EF RF			X	X	X	X	Х	
	X	X								T D S NF EF RF AS JS	X	X		X	X	X	Х	
DC			X	X	X	X				T D S NF EF RF AS JS NS			x	X	X	X	Х	sc
DC AD	X	x								T D S NF EF RF AS JS				X	X	X	Х	sc KD
DC AD			X	X	X					T D S NF EF RF AS JS NS ES				x	x	x	X	sc KD
DC AD AED		X	x	x	X					T D S NF EF RF AS JS NS ES RS				x	x	x	X	SC KD KED
DC AD AED		X	x	x	X					T D S NF EF RF AS JS NS ES RS ET				x	x	x	X	SC KD KED

127 / HE8 >>> FITTINGS & CONTACT COMPATIBILITIES

HE807																		
COMPATIBLE MALE FITTINGS Connector with male contacts										FEMALE FITTING RECEPTACLE								COMPATIBLE MALE FITTINGS Connector with female contacts
										AET								
ET							X	X	X		Х	Х						ET
		X	Х	Х	Х					AT KT				Х	Х	Х	Х	
		A	A	A	A					AED				A	A	A	A	
AS							Х	Х	Х	KED	Х	Х						AS
ES										AD								ES
		Х	Х	Х	Х					KD				Х	Х	Х	Х	
D										DC SC								D
EF										D								EF
		X	Х	Х	Х					S				Х	Х	Х	Х	
										L								
Α									.,	AE		.,						A
PA							Х	Х	Х	KE B	Х	Х	Х					PA
E	Х	Х	Х	Х	Х					P				Х	Х	Х	Х	E
Т										Α								Т
	Х	Х	Х	Х	Х					К				Х	Х	Х	Х	
FEMALE CONTACTS	YD	Х1	Z	W3	Υ	U	Т	YL	YC		YC		U	Υ	W3	ZC	Х	MALE CONTACTS
							Х	Х	Х	A	Х	Х						
							Х	Х	Х	PA	Х	Х						
.,										PC		Α						
K P										н								K P
KE										N								KE
·· ·										V						24		
	X	X	Х	Х	Х					E R				Х	Х	Х	Х	
	Х	Х	Х	Х	Х					T				Х	Х	Х	Х	
							Х	Х	Х	D	Х	Х						
										S								
S										NF								S
	Х	Х	Х	Х	X					EF				Х	Х	Х	Х	
							Х	Х	Х	RF AS	Х	Х						
								-		JS								
KD KED										NS								KD KED
KED	X	X	Х	Х	Х					ES				X	X	X	Х	KED
		. v	. V	. V						RS						V	. V	
KT KET		Х	Х	X						ET RT					X	Х	Х	KT KET
																		COMPATIBLE FEMALE
COMPATIBLE FEMALE FITTINGS										MALE FITTING PLUG								FITTINGS
Connector with male contacts										MALE								Connector with female contacts

NOTES		
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