



Hermetic and Small Bayonet Connectors EN3646 Standard Qualified

Combination of pressure robustness and compactness.
For sensors and space constrained applications.

High pressure performance ✓

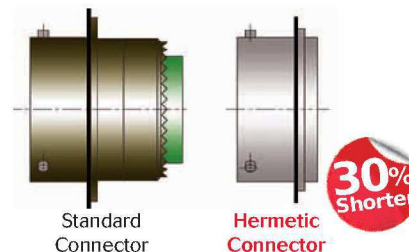
Glass to metal sealing.
Helium leakage of less than 10^{-7} atm.cm³/s.



Pressure resistant.

Compact design ✓

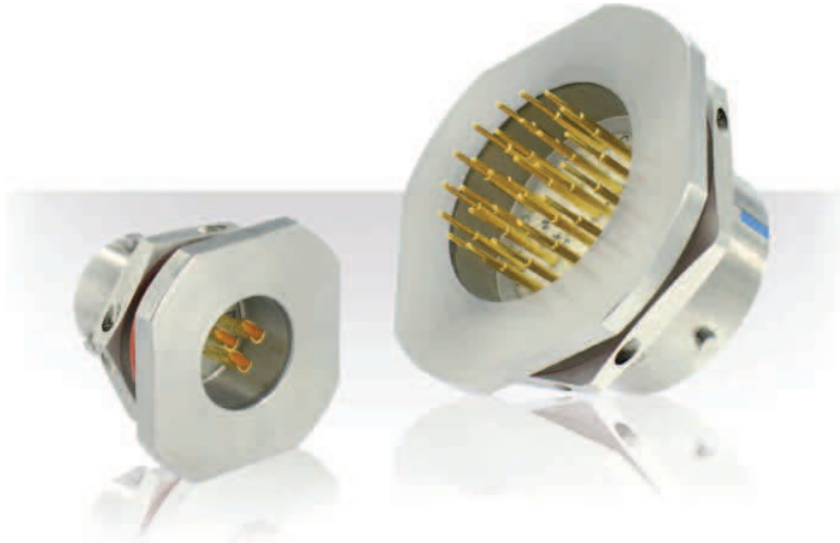
No rear accessory thread and no grommet.



High environmental performance ✓

Robust and corrosion resistant stainless shell.
Rated for up to 200°C use.

8525 Series Hermetic Connectors



Description

- Glass sealed hermetic
- Compact low profile - 30% shorter than the standard version
- Robust bayonet coupling according to HE302 standard, EN3646 standard qualified
- Solder cup contacts as well as PC tail contacts
- Specific fuel tank version for long term fuel immersion
- Specific large square flange to adapt an O'ring for an improved panel to connector sealing
- Other range extensions - see p.11

Technical features

Mechanical

- **Shell:**
Passivated stainless steel
- **Seals:**
Silicone elastomer
- **Contact:**
Gold plated ferrous alloy
- **Shock:**
As per EN3646, 100 m/s² (10g) during 6 ms in each 3 directions
- **Endurance:**
500 mating/unmating operations
- **Vibrations:**
5Hz to 3000Hz at constant acceleration of 10g (3 x 4 hours)

Electrical

- **Max current rating per contact:**

Contact size	20	16	12
Rating (A)	5	10	17

- **Dielectric withstanding voltage:**

Service	Sea level	21 000 m
I	1 500 Vrms	375 Vrms
II	2 300 Vrms	500 Vrms

- **Shell continuity:**
≤ 50 mΩ

- **Contact resistance at rated current:**
Maximum initial contact resistance at ambient temperature

Contact size	20	16	12
Resistance mΩ	12	8	5

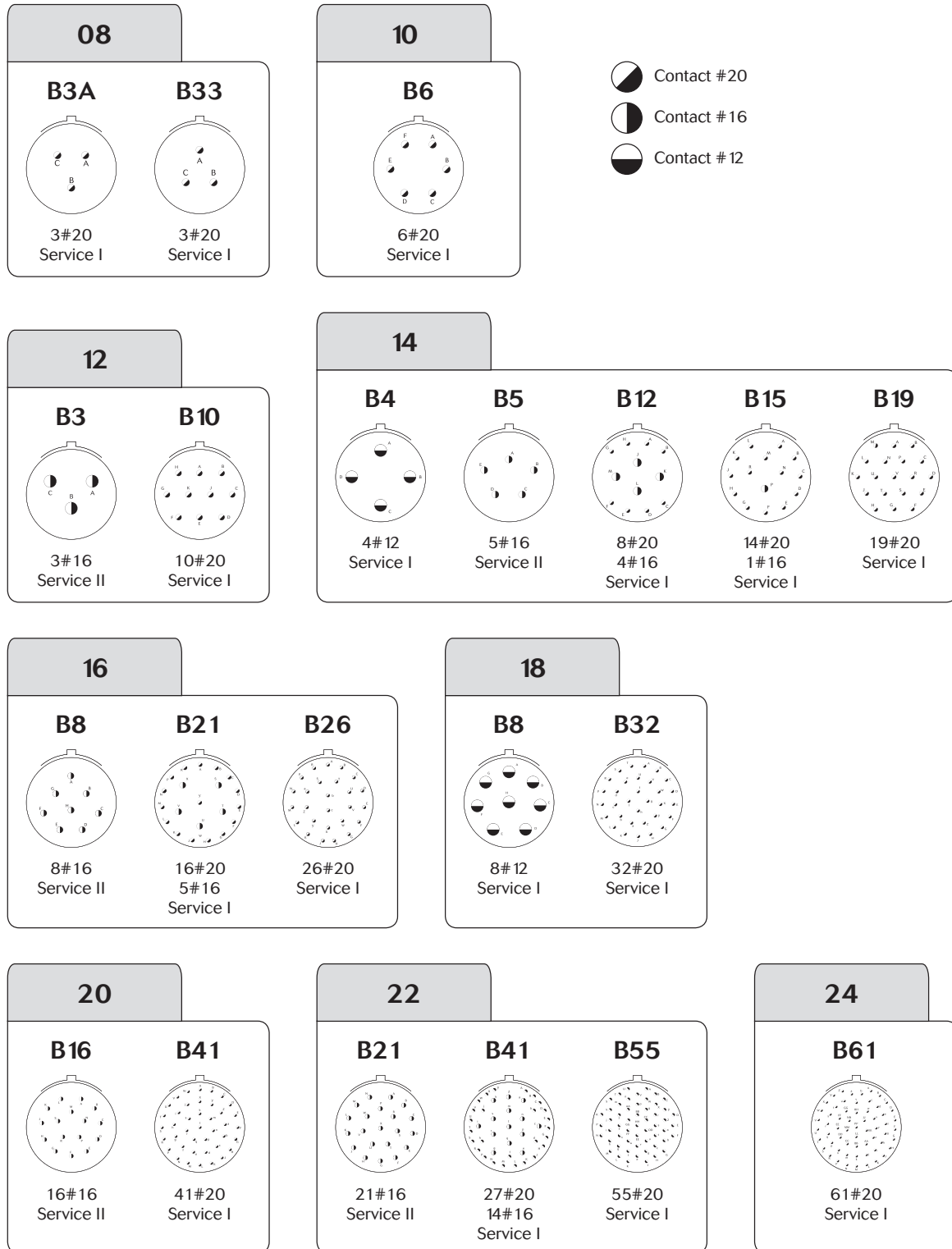
Environmental

- **Operating temperature:**
-55°C to 200°C
- **Hermeticity:**
10⁻⁷ atm.cm³/s (helium gas test)
- **Salt spray:**
48 hours min. as per EN3646
- **Resistance to fluids (standard):**
As per EN3646, including fuel, hydraulic fluids and oils
- **Fuel immersion version:**
 - . JP5 long term immersion
 - . 105°C maximum

8525 Series Hermetic Connectors

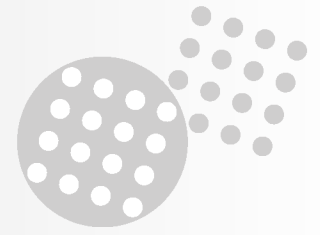


Contact layouts



8525 Series

Hermetic Connectors



Contact layouts (matrix)

Shell size	Layout	Hermetic 8525	Hermetic EN3646	8525 spec. 002 Large flange	8525 spec. 022 Fuel tank	Number of contacts		
						#20	#16	#12
08	8B3A		Q			3		
	8B33		Q			3		
10	10B6		Q			6		
12	12B3		Q				3	
	12B10		Q			10		
14	14B4		Q					4
	14B5		Q				5	
	14B12		Q			8	4	
	14B15		Q			14	1	
	14B19		Q			19		
16	16B8		Q				8	
	16B21		Q			16	5	
	16B26		Q			26		
18	18B8		Q					8
	18B32		Q			32		
20	20B16		Q				16	
	20B39					37	2	
	20B41		Q			41		
22	22B21		Q				21	
	22B41		Q			27	14	
	22B55		Q			55		
24	24B61		Q			61		

Souriau's layout

Q Souriau's qualified layout

8525 Series Hermetic Connectors

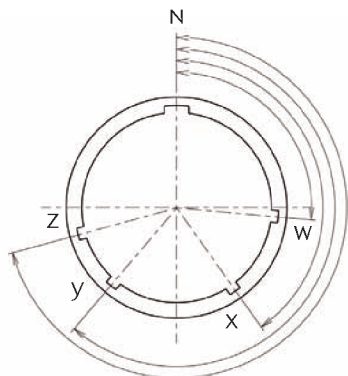


Ordering information

Basic series	8525	IH	18B32	P	N	H
Shell type:						
IH: Solder mount receptacle						
2H: Square flange receptacle						
7H: Jam nut receptacle						
Contact layout:						
See page 3						
Contact type:						
P: Pin						
Orientation:						
N, W, X, Y, Z - see below						
Mandatory suffix:						
H: Hermetic						
Specification:						
None: Standard hermetic version						
002: Large flange - 2H version only						
022: Fuel tank version						
Other specification (PC tail contacts): see page 10						

Orientation

Polarization code



Viewed from front face of receptacle

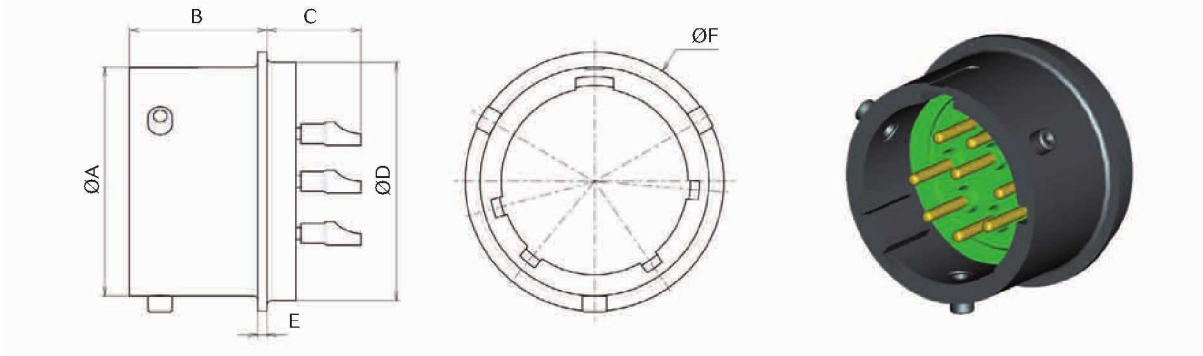
Shell size	Layouts	N	W	X	Y	Z
08	B3A	0	60	210	-	-
	B33	0	90	-	-	-
10	B6	0	90	-	-	-
12	B3	0	140	220	180	-
	B10	0	60	155	270	295
14	B4	0	45	-	-	-
	B5	0	40	92	184	273
	B12	0	43	90	-	-
	B15	0	17	110	155	234
16	B19	0	30	165	315	-
	B8	0	54	152	180	331
	B21	0	-	-	-	-
	B26	0	60	-	275	338
18	B8	0	180	-	-	-
	B32	0	85	138	222	265
20	B16	0	238	318	333	347
	B39	0	63	144	252	333
	B41	0	45	126	225	-
22	B21	0	16	135	175	349
	B41	0	39	135	264	-
	B55	0	30	142	226	314
24	B61	0	90	180	270	324

8525 Series Hermetic Connectors

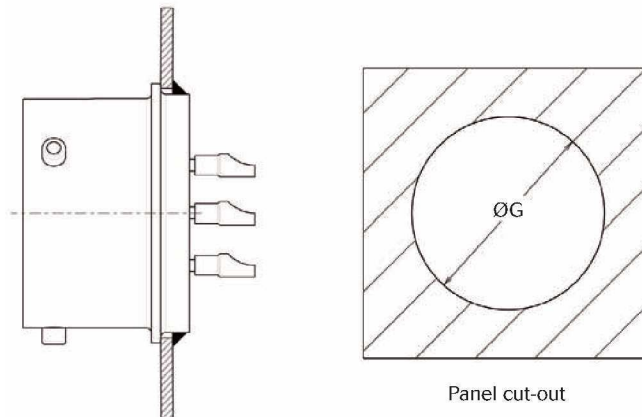


Dimensions

Solder mount receptacle (type IH)



Shell size	A max	B ^{+0.5}	C max	D ^{+0.02} _{-0.13}	E ^{+0.14}	F max	G ⁺⁰ _{-0.3}
8	12.02	11.5	10	14.27	0.8	16.1	14.7
10	14.99	11.5	10	17.07	0.8	19.3	17.5
12	19.05	11.5	10	19.84	0.8	21.7	20.2
14	22.23	11.5	10	23.01	0.8	24.9	23.4
16	25.4	11.5	10	26.19	0.8	28.1	26.6
18	28.58	11.5	10	29.36	0.8	31.2	29.8
20	31.75	13.5	10	31.75	0.8	33.8	32.1
22	34.93	13.5	11	34.92	0.8	36.8	35.3
24	38.1	13.9	11	38.1	0.8	40	38.4

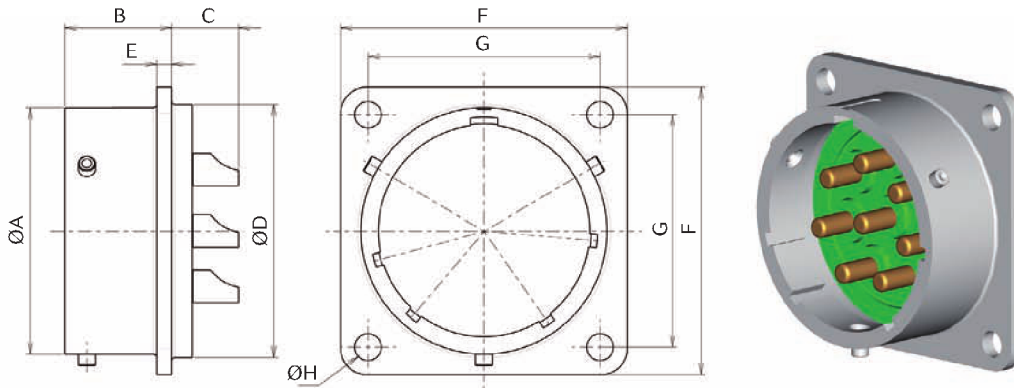


Note: All dimensions are in millimeters (mm)

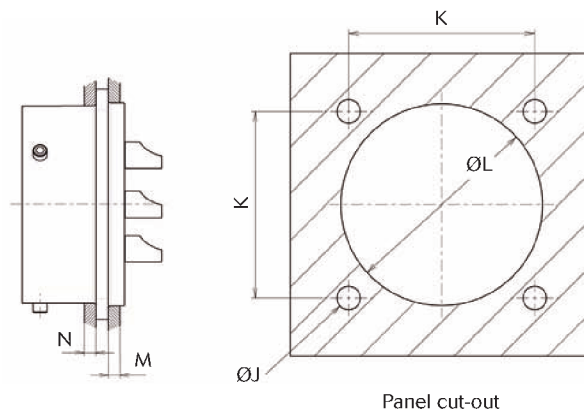
8525 Series Hermetic Connectors



Square flange receptacle (type 2H)



Shell size	A max	B ± 0.55	C max	D $^{+0.3}_{-0.3}$	E	F max	G	H ± 0.15	J ± 0.15	K	L $^{+0.3}_{-0.3}$	M	N max
8	12.02	12.65	8.4	14.3	1.63 $^{+0.28}$	21.03	15.1	3.15	3.15	15.1	14.7	3.5	2.3
10	14.99	12.65	8.4	17.1	1.63 $^{+0.28}$	24.23	18.26	3.15	3.15	18.26	17.5	3.5	2.3
12	19.05	12.65	8.4	19.9	1.63 $^{+0.28}$	26.59	20.62	3.15	3.15	20.62	20.2	3.5	2.3
14	22.23	12.65	8.4	23.05	1.63 $^{+0.28}$	28.98	23.01	3.15	3.15	23.01	23.4	3.5	2.3
16	25.4	12.65	8.4	26.25	1.63 $^{+0.28}$	31.34	24.61	3.15	3.15	24.61	26.6	3.5	2.3
18	28.58	12.65	8.4	29.4	1.63 $^{+0.28}$	33.73	26.97	3.15	3.15	26.97	29.8	3.5	2.3
20	31.75	14.25	9.6	31.8	1.93 $^{+0.58}$	36.91	29.36	3.15	3.15	29.36	32.2	3.5	5.4
22	34.93	14.25	9.6	35	1.93 $^{+0.58}$	40.1	31.75	3.15	3.15	31.75	35.3	3.5	5.4
24	38.1	15.05	9.6	38.2	1.93 $^{+0.58}$	43.27	34.92	3.73	3.73	34.92	38.4	3.5	5.4

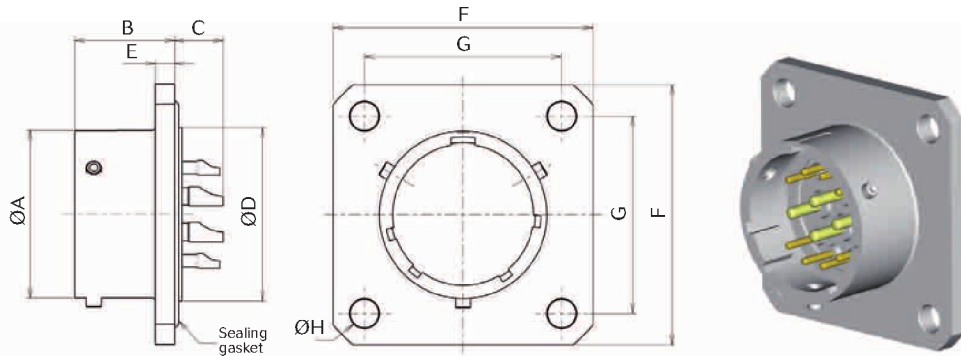


Note: All dimensions are in millimeters (mm)

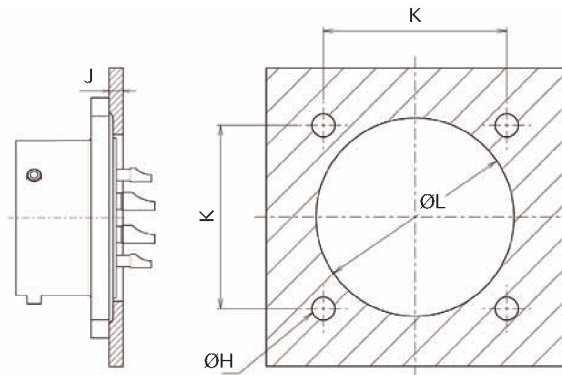
8525 Series Hermetic Connectors



Large square flange receptacle (type 2H spec. 002)



Shell size	A max	B max	C		D max	E max	F max	G	H	J	K	L ^{+0.3}
			#20	#12/#16								
8	12.02	13.14	6.8	-	14.27	2.6	26.4	18.1	3.8	3.5	18.1	14.7
10	14.99	13.14	6.8	-	17.06	2.6	28.9	20.62	3.8	3.5	20.62	17.5
12	19.05	13.14	6.8	7.1	19.83	2.6	32.1	23.82	3.8	3.5	23.82	20.2
14	22.23	13.14	6.8	7.1	23.01	2.6	34.5	26.18	3.8	3.5	26.18	23.4
16	25.4	13.14	6.8	7.1	26.18	2.6	36.8	28.57	3.8	3.5	28.57	26.6
18	28.58	13.14	6.8	7.1	29.36	2.6	38.8	30.55	3.8	3.5	30.55	29.8
20	31.75	15.84	6	6.3	31.74	3.4	42.8	32.94	3.8	3.5	32.94	32.2
22	34.93	15.84	6	6.3	34.92	3.4	44.8	34.92	3.8	3.5	34.92	35.3
24	38.1	16.64	5.2	5.5	38.09	3.4	47.9	38.1	3.8	3.5	38.1	38.4



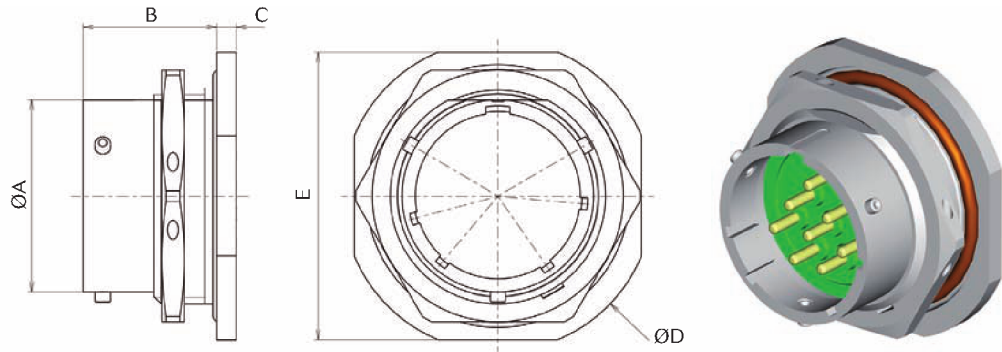
Panel cut-out

Note: All dimensions are in millimeters (mm)

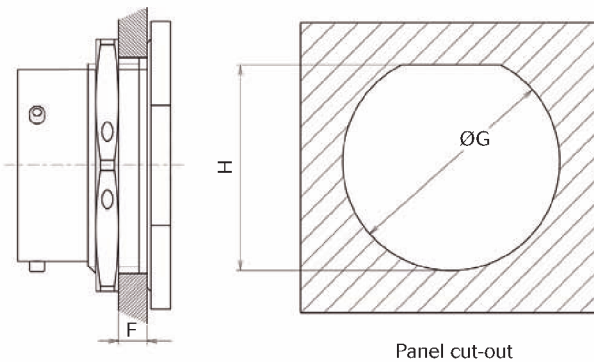
8525 Series Hermetic Connectors



Jam nut receptacle (type 7H)



Shell size	A max	B max	C ± 0.5	D max	E ± 0.25	F		G $^{+0.25}_{-0}$	H $^{+0.25}_{-0}$
						min	max		
8	12.02	18.34	2.4	27.37	23.82	1.57	4.75	14.4	13.48
10	14.99	18.34	2.4	30.57	26.97	1.57	4.75	17.58	16.66
12	19.05	18.34	2.4	35.32	31.75	1.57	4.75	22.6	20.8
14	22.23	18.34	2.4	38.5	34.92	1.57	4.75	25.52	23.95
16	25.4	18.34	2.4	41.67	38.1	1.57	4.75	28.7	27.1
18	28.58	18.34	2.4	44.85	41.27	1.57	4.75	31.87	30.27
20	31.75	23.12	3.2	49.62	46.02	1.57	6.35	35.05	33.45
22	34.93	23.12	3.2	52.77	49.22	1.57	6.35	38.22	36.62
24	38.1	23.95	3.2	55.97	52.37	1.57	5.56	41.4	39.8



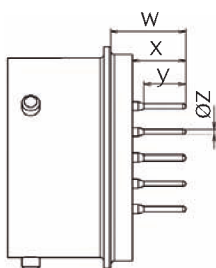
Panel cut-out

Note: All dimensions are in millimeters (mm)

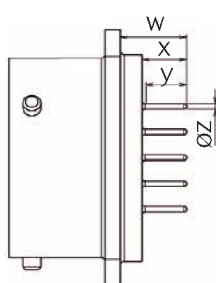
8525 Series Hermetic Connectors



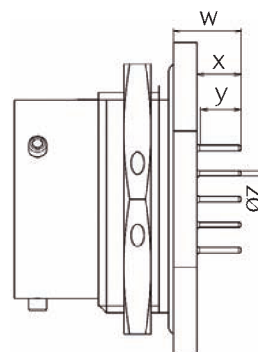
Contact variations



Type IH: Solder mount receptacle



Type 2H: Square flange receptacle



Type 7H: Jam nut receptacle

Type of contact	Specification	Shell type	Contact size	W Max	X Min	Y Min	Ø Z Max
Short PC tail contact	005	IH	20	9.1	4.55	4.5	0.65
		2H	20	8.4	3.35	4.5	0.65
		7H	20	8.05	3.75	4.5	0.65
Long PC tail contact	275	IH	20	13.87	8.5	6	0.65
		2H	20	12.9	7.3	6	0.65
		7H	20	12	7.7	6	0.65

Note: All dimensions are in millimeters (mm)

Maximum connector weights (in grams)

Shell type \ Shell size	8	10	12	14	16	18	20	22	24
Solder mount receptacle (type IH)	7	9	13	17	21	26	32	37	43
Square flange receptacle (type 2H)	10	12	16	21	26	33	41	47	55
Large square flange receptacle (type 2H spec. 002)	16	18	24	29	34	40	56	60	70
Jam nut receptacle (type 7H)	20	25	38	45	52	63	86	96	115

For further information contact us at contactmilaero@souriau.com
or visit our web site www.souriau.com

8525 Series Hermetic Connectors



Product Range Extension

Hermetic Connector with Removable Contacts

A technology combining crimp contacts superiority with glass to metal perfect sealing

High hermetic performance:

- . Glass to metal sealing: leakage of less than 10^{-9} atm.cm³/s.

Removable crimp contacts:

- . RoHS: no lead used.
- . Long lifetime: superior to solder cup contacts in kerosene immersion.
- . Easy MRO: contact replacement.

Long term fuel immersion materials:

- . Performances guaranteed for minimum 90,000 hours in fuel immersion.

Wide Availability:

- . EN3646 (Airbus Qualified Products).
- . EN2997, EN3645, MIL-DTL-38999.



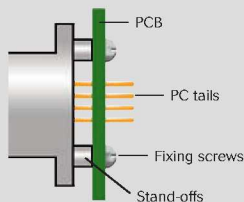
See «MIL-DTL-38999, EN3646, EN2997 Fuel Tank Connector» product news on www.souriau.com

Hermetic Receptacles with Stand-offs

Easy and robust PCB mount feature for hermetic receptacles.

User friendly - easy to assemble:

- . 3 fixing screws.
- . No need of additional PCB fixing tool when soldering the contacts.



Adapted to harsh environment:

- . Stand-offs directly machined into the connector.
- . Excellent grounding of the PCB to the connector shell through the stand-offs.
- . Excellent vibration and shock resistance, leading to a longer lifetime: PC tail to PCB stresses are supported by the stand-offs.

Compact:

- . Hermetic receptacle compact design maintained with a profile smaller than the double flange version.



See «Hermetic Receptacles with Stand-offs» product news on www.souriau.com