



Hermetic Connectors

High Performance Sealing Solutions

Hermetic Connectors



Presentation

Based on glass to metal seal technology, **SOURIAU** offers hermetic connectors to cover applications which require performances that supersede standard watertight connectors capability, such as high pressure, high temperature variations resistance, secured hermetic protection, ...

In addition to the various connector standards on which this technology has been developed, **SOURIAU** supports customers specific needs, from a shell or contact change to more complex and innovative solutions.

This hermetic connectors catalog aims to give an extensive outlook of **SOURIAU's** offering. After an overall view of the hermetic technology, you will find a detailed description of each connector range specifics features, as well as dimensions and ordering details. The end of the catalog will give you a flavor of some of the various specific extensions. Enjoy the reading!

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HERMETIC

Hermetic

Overview

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Typical applications



National Museum of the US Air Force

Actuators - Monitoring



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Sensors



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Valves - Flowmeters



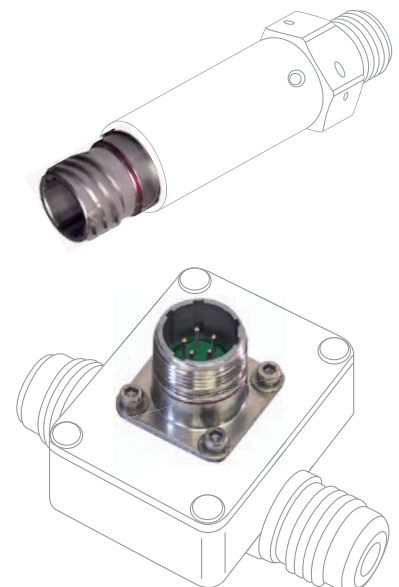
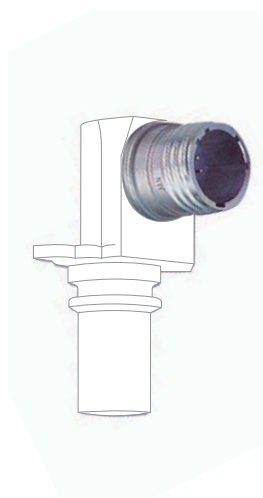
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Vacuum Pumps



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High-Tech Cameras



Features & Benefits

HIGH SEALING

Hermetic connector

Leak rate less than $10^{-7}\text{cm}^3/\text{s}$ at 1 bar pressure difference under helium.

Less than 1 cm^3 leaks in 4 months.

SPACE SAVING

Compacity

No need of additional rear accessories.

1/3 shorter than watertight connector equivalent.

Solder mount option for full equipment integration.

LARGE OFFER

Wide range of standards

Large connectors offer available in circular as well as rectangular ranges: EN2997, MIL-C-26482 Series I & II, EN3646, MIL-C-38999, micro38999, D-Sub, ...

CUSTOM SOLUTION

Adapted to specific need

Wide range of custom solutions based on standard definition: specific shell, materials, contact length, grounding, ...

ROHS

Environment friendly

No lead content.

Feedthrough
Easy MRO (Maintenance, Repair and Operations)
See page 63



Removable crimp contacts
Ideal for fuel immersion
See page 62



Solder contacts on both sides
Compact design
See page 64



Standard hermetic
Glass to metal sealing



+ Added functions

Rack & panel
Blind mating
See page 63



sealing technologies

Contact grounded on the shell

Integrated grounded function

See page 65



Thermocouples

Accurate temperature data communication

See page 65



PCB contacts / Stand-offs

Robust PCB mount design

See page 62



Titanium

30% weight saving



+ Added functions

Standard glass to metal sealing technologies

Capability to Provide Custom Solutions

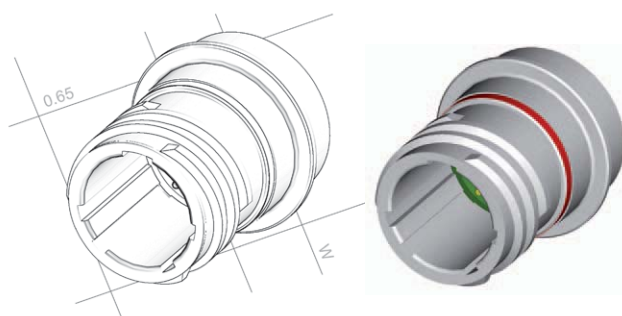
- ▶ Tight tolerances,
- ▶ Specific shells,
- ▶ Specific contacts,
- ▶ Filtering, ...



Ex: Custom EN2997

Technical Support

- ▶ Souriau engineering team will proactively support your new designs. Contact us!
- ▶ Free 3D models available online: www.tracepartsonline.net



Alternative sealing technologies

Full plastic hermetic

Big volume low weight hermetic



Resin sealed

Flexible low weight hermetic

See page 66



Hermetic range selector guide

	▶ Standard	▶ Main feature	▶ Material
▶ 851 Series see p.14 	MIL-C 26482 Series I	Economic	Steel housing
▶ 8525 Series see p.20 	EN3646	Quick and robust bayonet coupling	Passivated stainless steel housing
▶ 8526 Series see p.29 	MIL-C 26482 Series II	Quick and robust bayonet coupling	Tin plated steel housing
▶ 8533 Series see p.36 	EN2997/ESC10	High temperature and high vibration (engine conditions)	Passivated stainless steel housing
▶ 8D Series see p.44 	MIL-C-38999 Series III	High density	Passivated stainless steel housing
▶ 8STA Series see p.53 	Derived from MIL-DTL-38999	Micro-miniature	Passivated stainless steel housing
▶ D-Sub Series see p.56 	MIL-DTL-24308	Rectangular	Tin or cadmium plated steel housing

HERMETIC

Hermetic

Product Series

■ 851 Series	14
■ 8525 Series	20
■ 8526 Series	29
■ 8533 Series	36
■ 8D Series	44
■ 8STA Series	53
■ D-Sub Series	56



Description

- Bayonet coupling connector
- MIL-DTL-26482 Series I, HE301 compliant and VG95328 qualified
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to install square flange receptacle
 - . easy to replace jam nut receptacle
- Solder cup or PC tail contacts

Technical features

Materials

- **Shell:**
Steel
- **Plating:**
Iridescent yellow cadmium
Nickel
- **Contact:**
Gold plated ferrous alloy
- **Seal:**
Fluorocarbon elastomer

Electrical

- **Max current rating per contact:**

Contact size	20	16
Rating (A)	5	10

- **Dielectric withstanding voltage:**

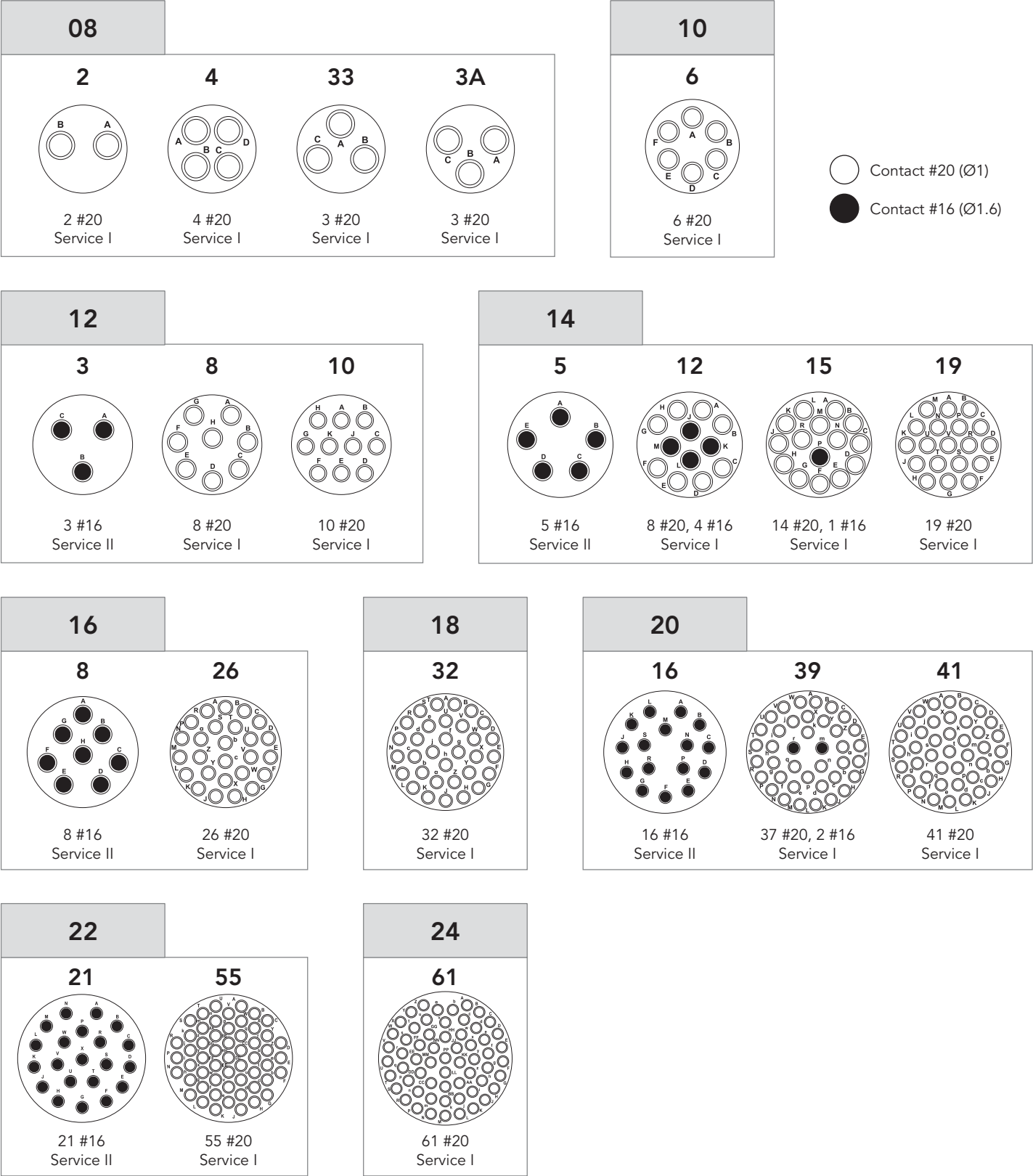
Service	Standard pressure	10 mbar pressure
I	1 500 Vrms	200 Vrms
II	2 300 Vrms	300 Vrms

- **Contact resistance:**
Size 20 $\leq 30 \text{ m}\Omega$
Size 16 $\leq 14 \text{ m}\Omega$

Environmental

- **Operating temperature:**
-55°C to +125°C
- **Hermeticity:**
Leak rate $< 1.10^{-7} \text{ atm.cm}^3/\text{s}$
(helium gas test)
- **Salt spray:**
48 hours min

Contact layouts



Ordering information

SOURIAU part numbers

Basic series	851	02H	18	32	P		50
Shell type: IH: Solder mount receptacle 02H: Square flange receptacle 07H: Jam nut receptacle							
Shell size: 08, 10, 12, 14, 16, 18, 20, 22, 24							
Contact layout: See previous page							
Contact type: P: Pin							
Orientation: None: Normal (N) W, X, Y, Z - see page 19							
Mandatory suffix: 50: Gold plating for contact size 20 and size 16							
Specification: None: Yellow cadmium plating - 02H and 07H only Nickel plated - IH only 44: Nickel plated - 02H and 07H only							

VG95328 qualified products

Basic series	VG95328	F	18	32	P	N
Shell type: G: Solder mount receptacle P: Square flange receptacle F: Jam nut receptacle						
Shell size: 08, 10, 12, 14, 16, 18, 20, 22, 24						
Contact layout: See previous page						
Contact type: P: Pin						
Orientation: N, W, X, Y, Z - see page 19						

Contact layouts (matrix)

Shell size	Layout	Hermetic			Number of contacts	
		851	MIL-DTL-26482G	VG95328	#20	#16
08	8-2	OK	OK		2	
	8-3	Available on request, please consult us			3	
	8-3A	OK		Q	3	
	8-98		OK		3	
	8-33	OK	OK		3	
	8-4	OK	OK		4	
10	10-6	OK	OK	Q	6	
	10-7	Available on request, please consult us			7	
	10-98	Available on request, please consult us			6	
12	12-2	Available on request, please consult us				2
	12-3	OK	OK	Q		3
	12-8	OK	OK		8	
	12-10	OK	OK	Q	10	
	12-14	Available on request, please consult us			14	
14	14-5	OK	OK	Q		5
	14-12	OK	OK	Q	8	4
	14-15	OK	OK	Q	14	1
	14-18	Available on request, please consult us			18	
	14-19	OK	OK	Q	19	

Shell size	Layout	Hermetic			Number of contacts	
		851	MIL-DTL-26482G	VG95328	#20	#16
16	16-8	OK	OK	Q		8
	16-23	Available on request, please consult us			22	1
	16-26	OK	OK	Q	26	
18	18-11	Available on request, please consult us				11
	18-32	OK	OK	Q	32	
	18-30	Available on request, please consult us			29	1
20	20-16	OK	OK	Q		16
	20-24	Available on request, please consult us			24	
	20-25	Available on request, please consult us			25	
	20-27	Available on request, please consult us			27	
	20-39	OK	OK	Q	37	2
	20-41	OK	OK	Q	41	
22	22-21	OK	OK	Q		21
	22-32	Available on request, please consult us			32	
	22-34	Available on request, please consult us			34	
	22-36	Available on request, please consult us			36	
	22-55	OK	OK	Q	55	
24	24-61	OK	OK	Q	61	

OK = SOURIAU's layout
Q = SOURIAU's qualified layout

Cross reference list

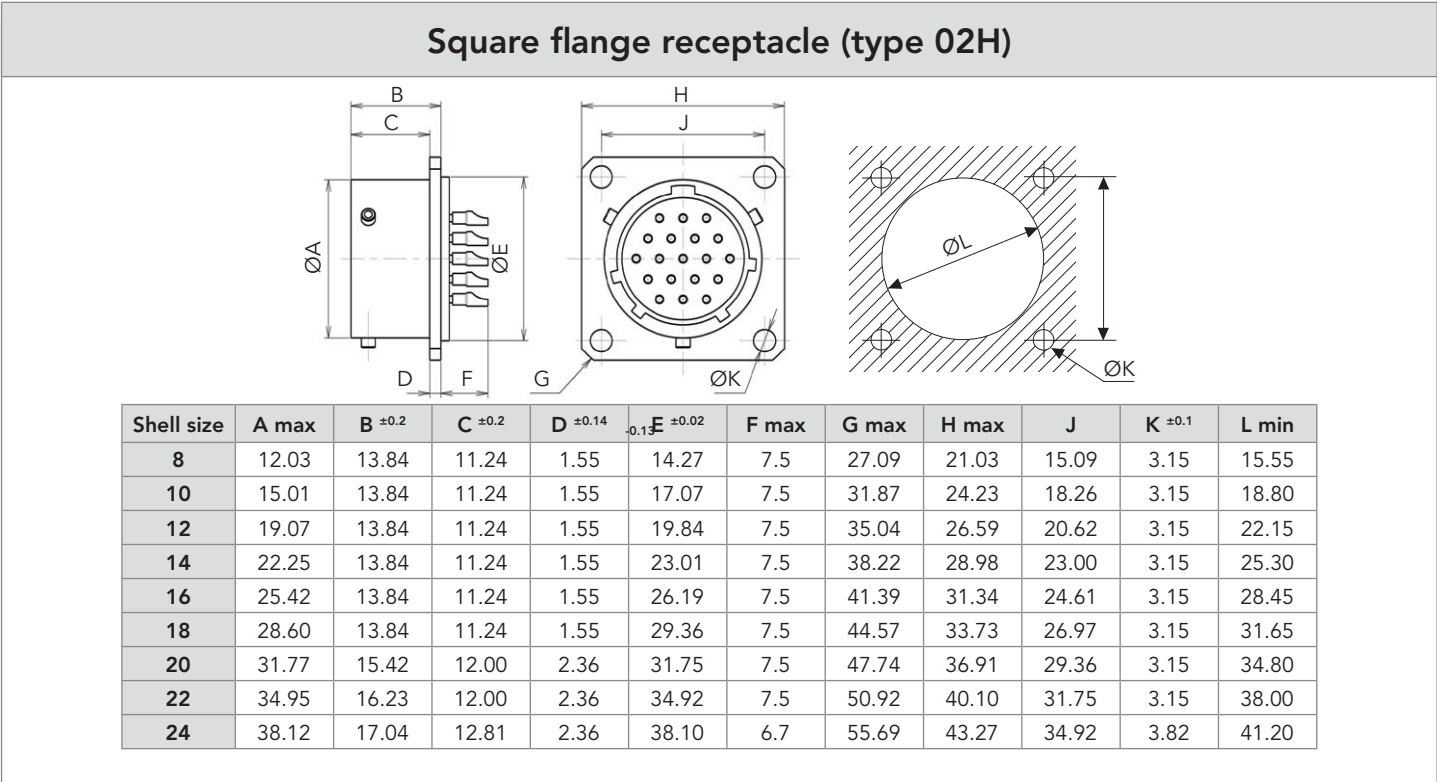
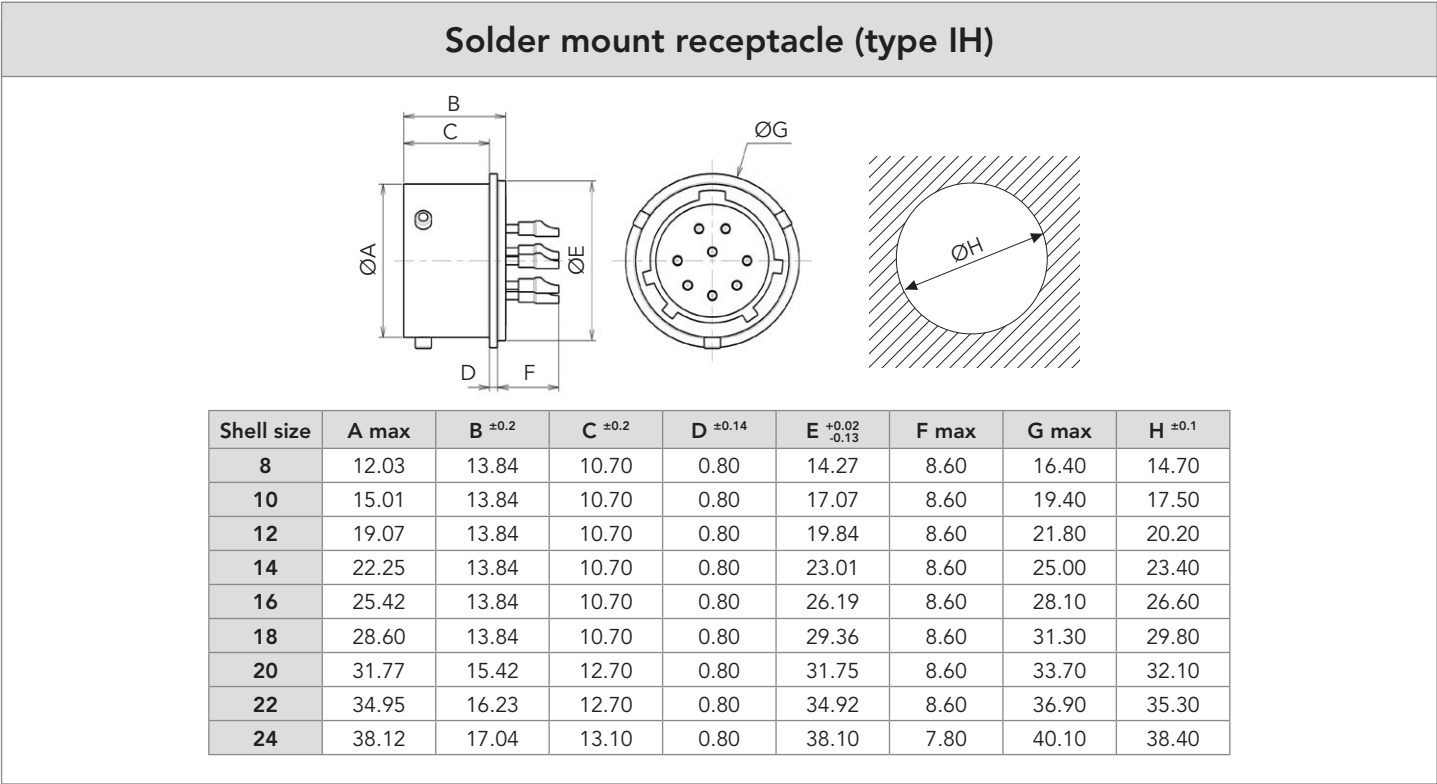
SOURIAU	NFC 93422 HE 301B	MIL-DTL-26482G Series I Not QPL
851 02H ●●●● P □ 50	HE 301 B 02 H ●●●● P □ 3A	-
851 07H ●●●● P □ 50	HE 301 B 07 H ●●●● P □ 3A	MS 3114 H ●● C ●● P □
851 1H ●●●● P □ 50	HE 301 B 1 H ●●●● P □ 3A	MS 3113 H ●● C ●● P □

●● Shell size
○○ Layout
□ Orientation. Empty if orientation N - only for «Souriau», «NFC93422» and «MIL-DTL-26482G Series I»

Maximum connector weights (in grams)

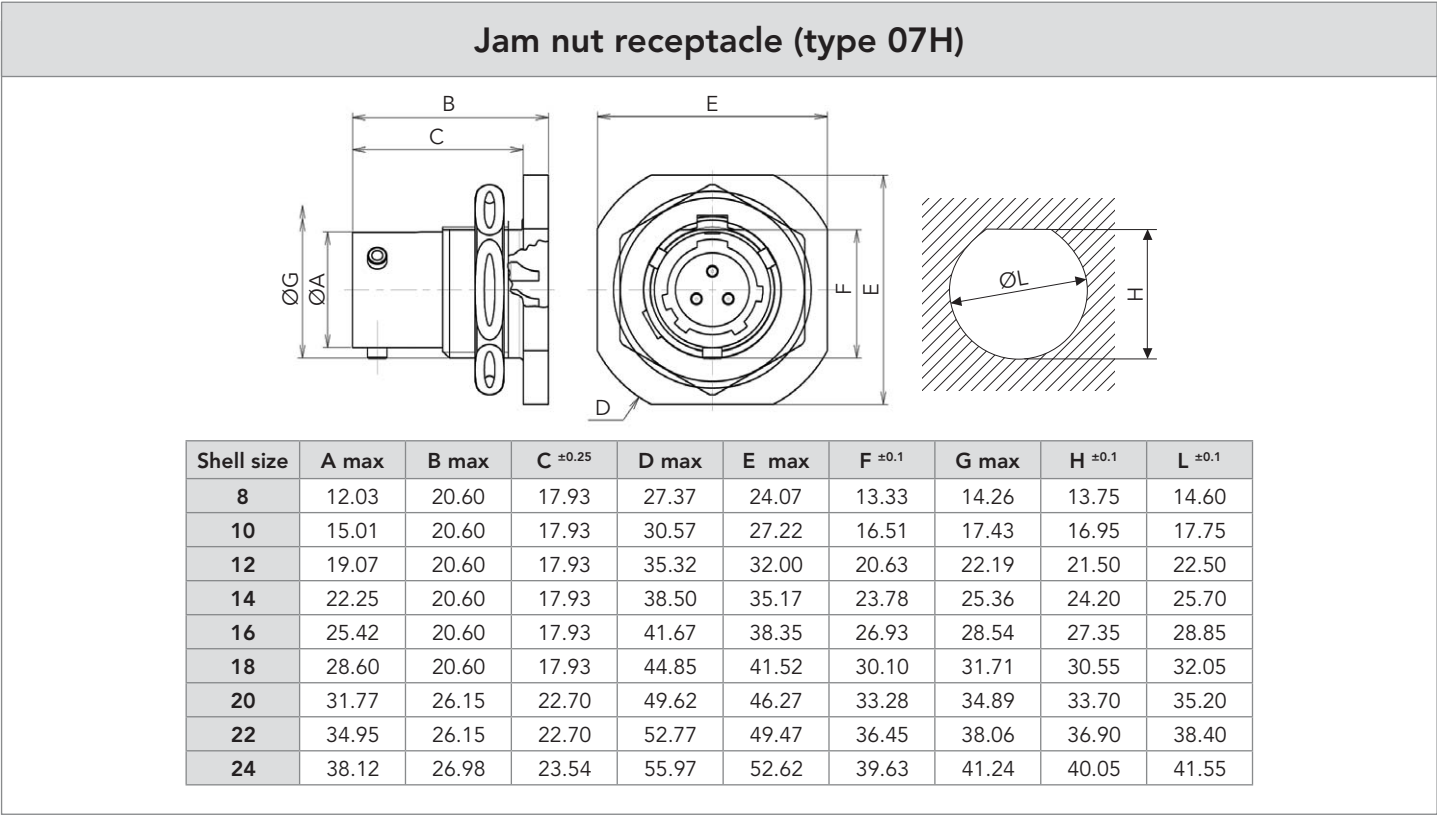
Shell size	8	10	12	14	16	18	20	22	24
Shell type									
Solder mount receptacle (type 1H)	7	9	13	17	21	26	32	37	43
Square flange receptacle (type 02H)	10	12	16	21	26	33	41	47	55
Jam nut receptacle (type 07H)	20	25	38	45	52	63	86	96	115

Dimensions

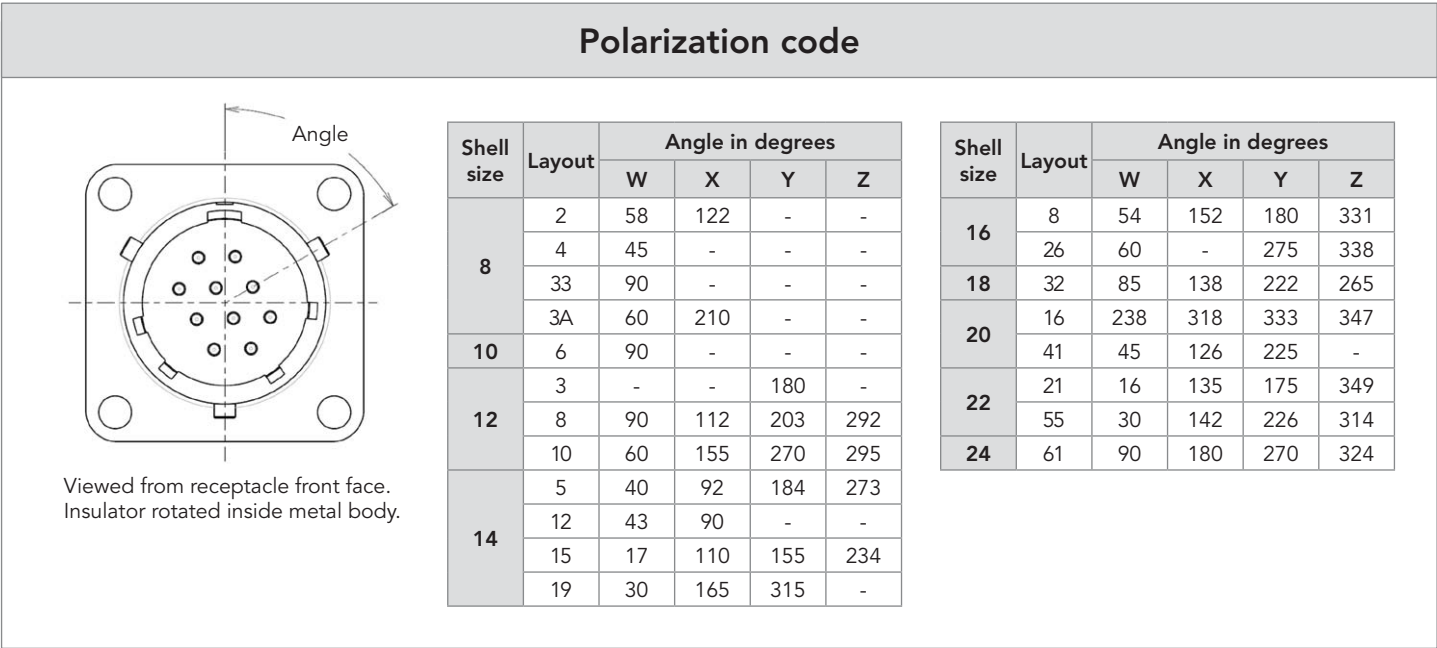


Note: All dimensions are in millimeters (mm)

Dimensions



Orientation



Note: All dimensions are in millimeters (mm)



Description

- Bayonet coupling connector
- EN3646 standard qualified
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to install square flange receptacle
 - . easy to replace jam nut receptacle
- Solder cup or PC tail contacts
- Specific fuel tank version for long term fuel immersion

Technical features

Mechanical

- **Shell:**
Passivated stainless steel
- **Seals:**
Silicone elastomer
- **Contact:**
Gold plated ferrous alloy
- **Endurance:**
500 mating/unmating operations

Electrical

- **Max current rating per contact:**

Contact size	20	16	12
Rating (A)	5	10	17
- **Dielectric withstanding voltage:**

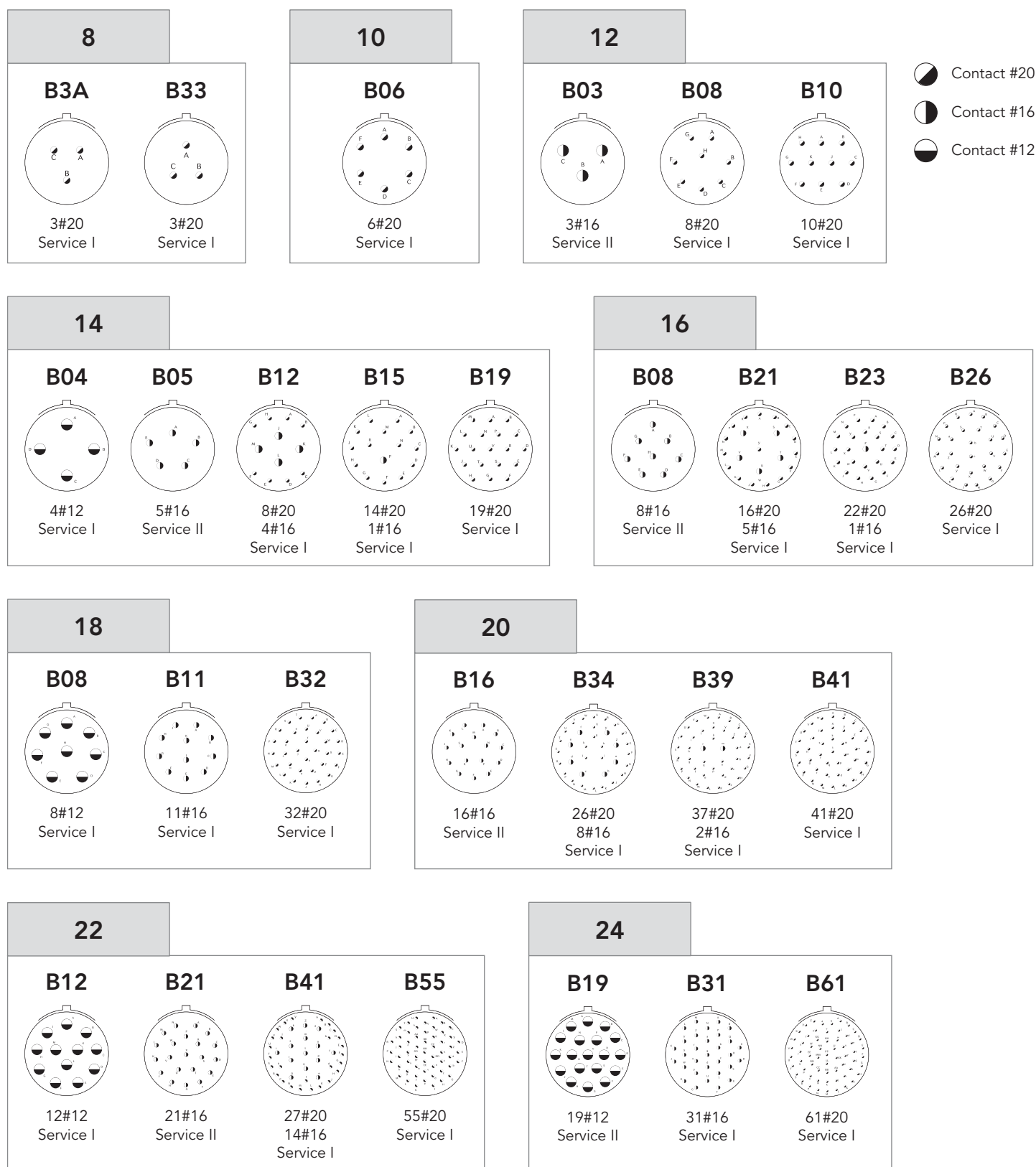
Service	Sea level	21 000 m
I	1 500 Vrms	375 Vrms
II	2 300 Vrms	500 Vrms
- **Shell continuity:**
≤ 50 mΩ
- **Contact resistance at rated current:**
Maximum initial contact resistance at ambient temperature

Contact size	20	16	12
Resistance mΩ	12	8	5

Environmental

- **Operating temperature:**
-55°C to 200°C
- **Hermeticity:**
Leak rate < 1.10⁻⁷ atm.cm³/s
(helium gas test)
- **Salt spray:**
48 hours min. as per EN3646

Contact layouts



Contact layouts (matrix)

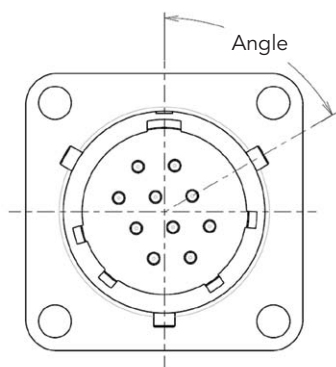
Shell size	Layout	Hermetic 8525	Hermetic EN3646	8525 spec. 002	8525 spec. 022	8525 spec. A76	Number of contacts		
							#20	#16	#12
08	8B3A	OK	Q	OK	OK		3		
	8B33	OK	Q	OK			3		
10	10B6	OK	Q	OK			6		
12	12B3	OK	Q	OK				3	
	12B8	Available on request, please consult us					8		
	12B10	OK	Q	OK	OK	OK	10		
14	14B4	OK	Q	OK	OK				4
	14B5	OK	Q	OK				5	
	14B12	OK	Q	OK			8	4	
	14B15	OK	Q	OK			14	1	
	14B19	OK	Q	OK	OK	OK	19		
16	16B8	OK	Q	OK				8	
	16B21	OK	Q	OK			16	5	
	16B23	Available on request, please consult us					22	1	
	16B26	OK	Q	OK	OK		26		
18	18B8	OK	Q	OK					8
	18B11	Available on request, please consult us						11	
	18B32	OK	Q	OK			32		

OK = SOURIAU's layout
Q = SOURIAU's qualified layout

Shell size	Layout	Hermetic 8525	Hermetic EN3646	8525 spec. 002	8525 spec. 022	8525 spec. A76	Number of contacts		
							#20	#16	#12
20	20B16	OK	Q	OK				16	
	20B34	Available on request, please consult us					26	8	
	20B39	OK		OK			37	2	
	20B41	OK	Q	OK	OK	OK	41		
22	22B12	Available on request, please consult us							12
	22B21	OK	Q	OK				21	
	22B41	OK	Q	OK			27	14	
	22B55	OK	Q	OK	OK		55		
24	24B19	Available on request, please consult us							19
	24B31	Available on request, please consult us						31	
	24B61	OK	Q	OK			61		

Orientation

Polarization code



Viewed from receptacle front face.
Insulator rotated inside metal body.

Shell size	Layout	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
	B19	0	30	165	315	-

Shell size	Layout	N	W	X	Y	Z
16	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

Ordering information

SOURIAU part numbers

Basic series	8525	IH	18B32	P	N	H
Shell type:						
IH: Solder mount receptacle						
02H: Square flange receptacle						
07H: Jam nut receptacle						
Contact layout:						
See page 21						
Contact type:						
P: Pin						
Orientation:						
N, W, X, Y, Z - see page 22						
Mandatory suffix:						
H: Hermetic						
Specification (see previous page for available layouts):						
None: Standard hermetic version						
002: Large flange - 02H version only						
005: Short PC tail contacts - see page 28						
022: Fuel tank version						
275: Long PC tail contacts - see page 28						
A73: Tin plating on contacts rear side and gold plating on contacts front side						
A76: Fuel tank version with crimp contacts - Jam nut only						

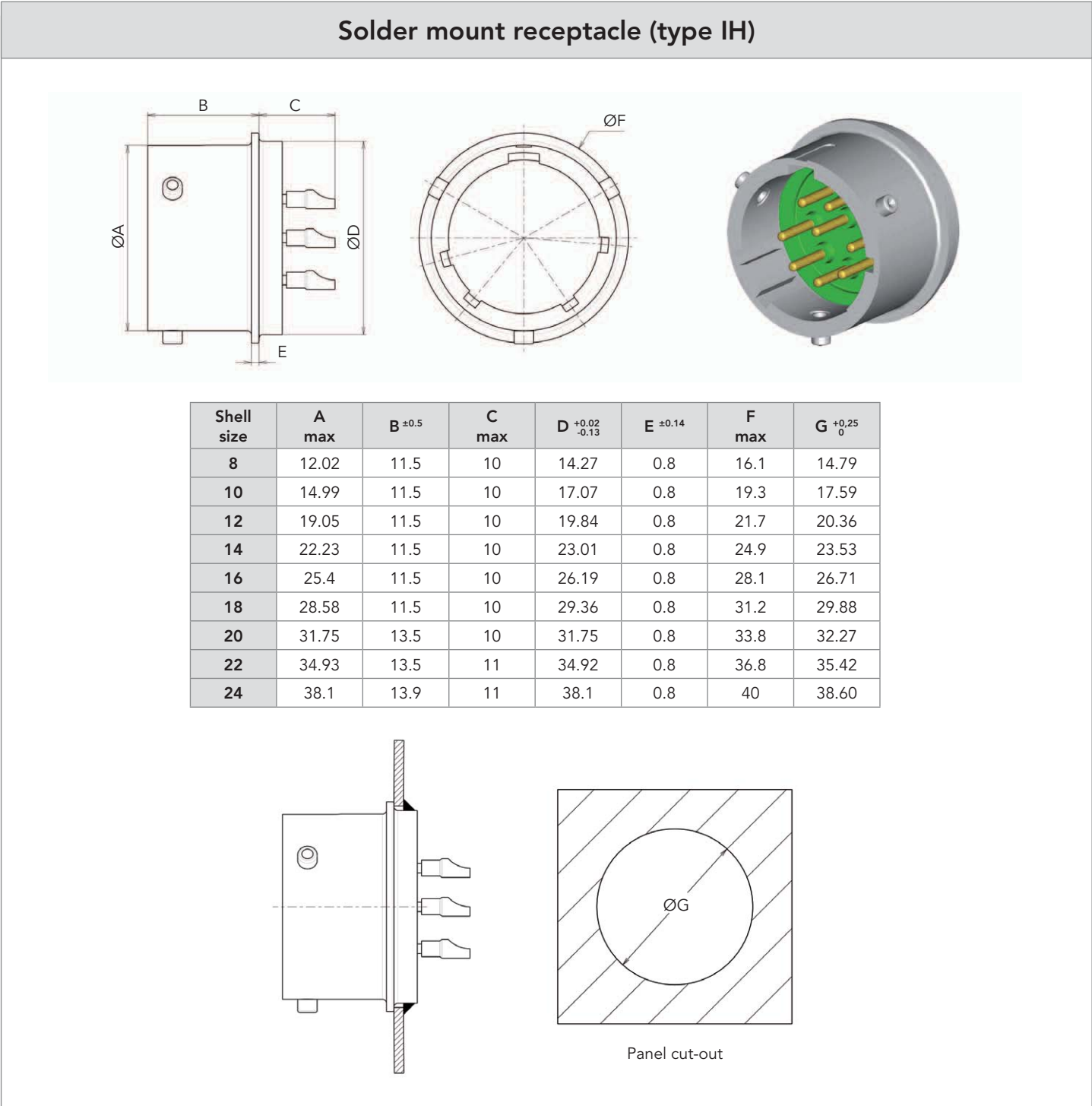
EN3646 qualified products

Basic series	EN3646	Y	0	08	03	M	N
Mandatory suffix:							
Y: Hermetic							
Shell type:							
0: Square flange receptacle							
1: Solder mount receptacle							
7: Jam nut receptacle							
Shell size:							
08, 10, 12, 14, 16, 18, 20, 22, 24							
Contact layout:							
See page 21							
Contact type:							
M: Pin							
Orientation:							
N, W, X, Y, Z - see page 22							

Maximum connector weights (in grams)

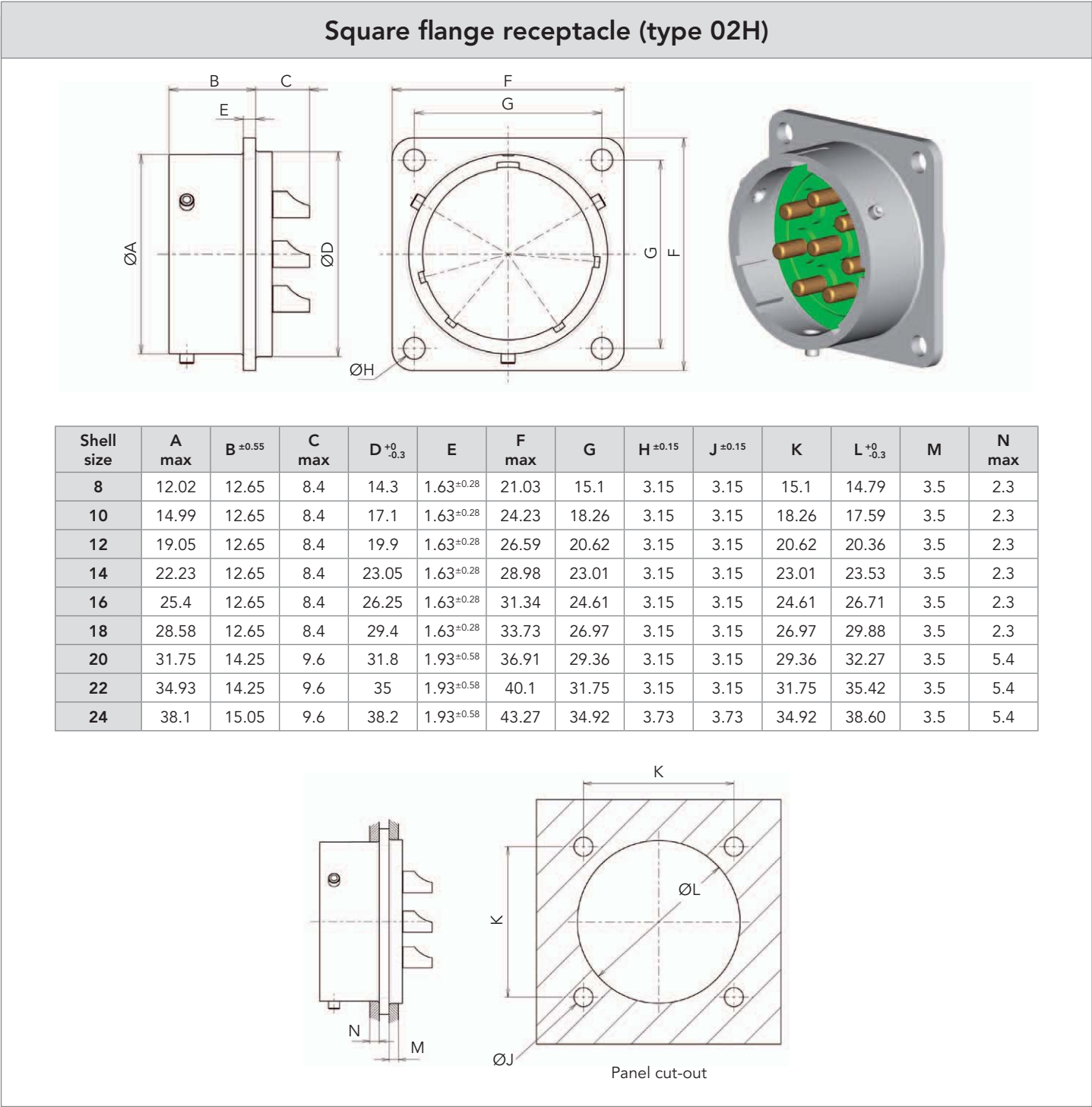
Shell type \ Shell size	8	10	12	14	16	18	20	22	24
Solder mount receptacle (type IH)	7	9	13	17	21	26	32	37	43
Square flange receptacle (type 02H)	10	12	16	21	26	33	41	47	55
Large square flange receptacle (type 02H spec. 002)	16	18	24	29	34	40	56	60	70
Jam nut receptacle (type 07H)	20	25	38	45	52	63	86	96	115

Dimensions



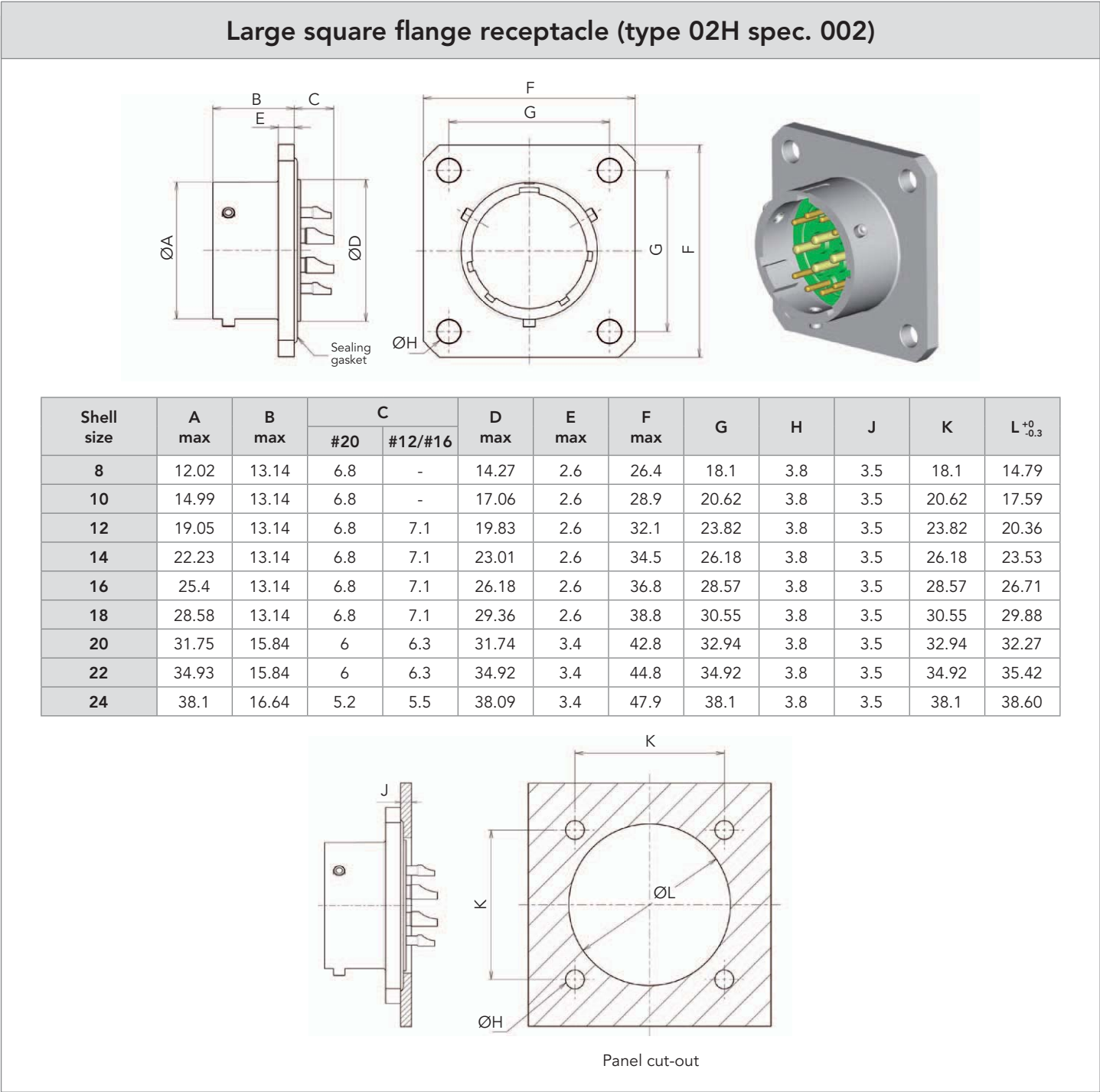
Note: All dimensions are in millimeters (mm)

Dimensions



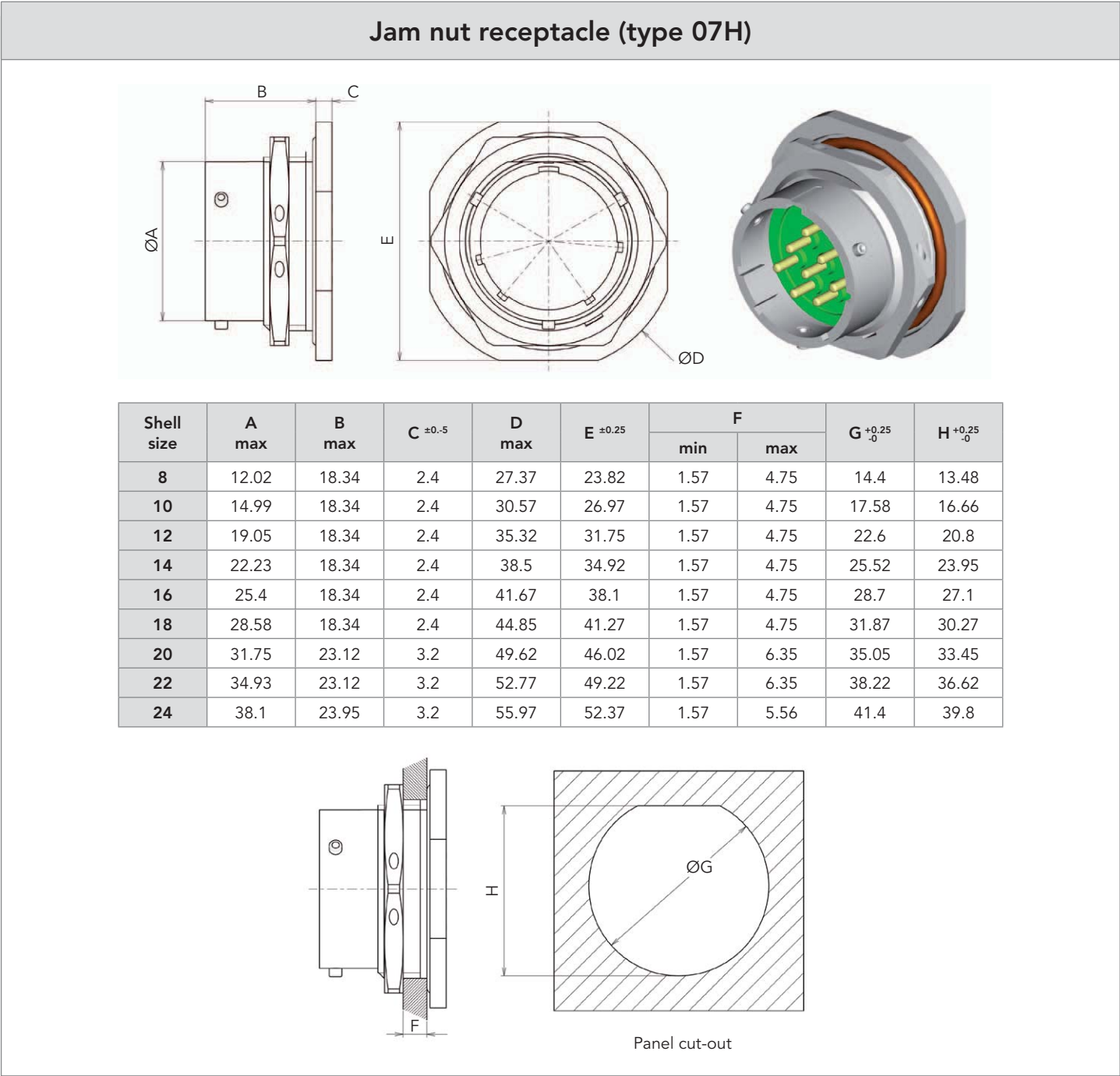
Note: All dimensions are in millimeters (mm)

Dimensions



Note: All dimensions are in millimeters (mm)

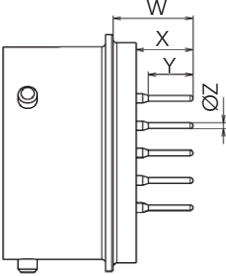
Dimensions



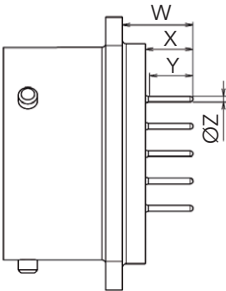
Note: All dimensions are in millimeters (mm)

Contact variations

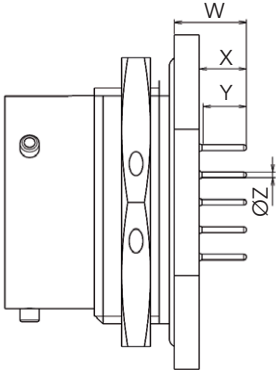
Contact variations summary



Type IH: Solder mount receptacle



Type 02H: Square flange receptacle



Type 07H: Jam nut receptacle

Type of contact	Specification	Shell type	Contact size	W Max	X Min	Y Min	Ø Z Max
Short PCB contact	005	IH	20	9.1	4.55	4.5	0.65
		02H	20	8.4	3.35	4.5	0.65
		07H	20	8.05	3.75	4.5	0.65
Long PCB contact	275	IH	20	13.87	8.5	6	0.65
		02H	20	12.9	7.3	6	0.65
		07H	20	12	7.7	6	0.65

Note: for other contact length, please consult us.

Gaskets & O'rings

Shell size	Gasket for receptacle Type 0 (not delivered with connector)		O ring for receptacle Type 7 (delivered with connector)	
	Part number	Material	Part number	Material
08	85251431	Fluorosilicone	AS3582-016	Silicone
10	85251432	Fluorosilicone	AS3582-018	Silicone
12	85251433	Fluorosilicone	AS3582-021	Silicone
14	85251434	Fluorosilicone	AS3582-023	Silicone
16	85251435	Fluorosilicone	AS3582-025	Silicone
18	85251436	Fluorosilicone	AS3582-027	Silicone
20	85251437	Fluorosilicone	AS3582-029	Silicone
22	85251438	Fluorosilicone	AS3582-030	Silicone
24	85251439	Fluorosilicone	AS3582-031	Silicone

Note: All dimensions are in millimeters (mm)



Description

- Bayonet coupling connector
- Derived from HE312 standard
Qualified per MIL-C 26482 Series 2 standard and PAN 6432
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to install square flange receptacle
 - . easy to replace jam nut receptacle
- Solder cup or PC tail contacts
- Specific fuel tank version for long term fuel immersion

Technical features

Mechanical

- **Shell:**
RoHS mat tin over nickel plated steel
- **Seals:**
Silicone elastomer
- **Contact:**
Gold plated ferrous alloy
- **Endurance:**
500 mating/unmating operations

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

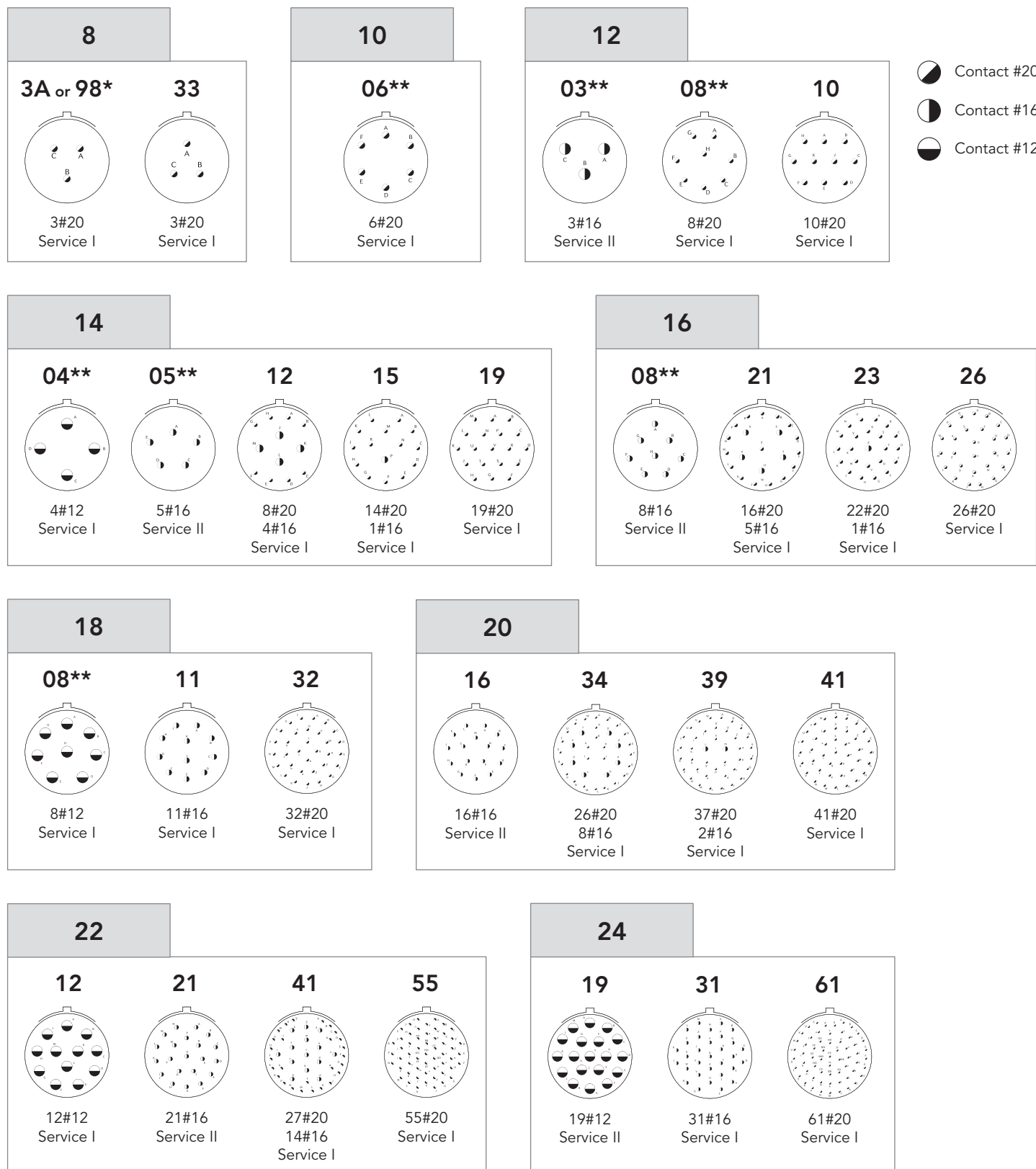
Contact size	20	16	12
Resistance mΩ	12	8	5

- **Insulation resistance:**
≥ 5000 MΩ at 500 Vdc

Environmental

- **Operating temperature:**
-55°C to 200°C
- **Hermeticity:**
Leak rate < 1.10⁻⁷ atm.cm³/s
(helium gas test)
- **Salt spray:**
48 hours

Contact layouts



* 3A for 8526 part numbering / 98 for MS part numbering.

** Remove digit "0" for MS part numbering.

Contact layouts (matrix)

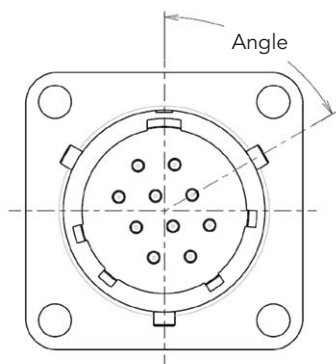
Shell size	Layout	Hermetic 8526	MIL-C 26482 G	PAN 6432	Number of contacts		
					#20	#16	#12
08	83A	OK		Q	3		
	898	OK		Q	3		
	833	OK	Q	Q	3		
10	106	OK	Q	Q	6		
12	123	OK	Q	Q		3	
	128	Available on request, please consult us			8		
	1210	OK	Q	Q	10		
14	144	OK		Q			4
	145	OK	Q	Q		5	
	1412	OK	Q	Q	8	4	
	1415	OK	Q		14	1	
	1419	OK	Q	Q	19		
16	168	OK	Q	Q		8	
	1621	OK			16	5	
	1623	Available on request, please consult us			22	1	
	1626	OK	Q	Q	26		
18	188	OK		Q			8
	1811			Q		11	
	1832	OK	Q	Q	32		

OK = SOURIAU's layout
Q = SOURIAU's qualified layout

Shell size	Layout	Hermetic 8526	MIL-C 26482 G	PAN 6432	Number of contacts		
					#20	#16	#12
20	2016	OK	Q	Q		16	
	2034	Available on request, please consult us			26	8	
	2039	OK			37	2	
	2041	OK	Q	Q	41		
22	2212	Available on request, please consult us					12
	2221	OK	Q	Q		21	
	2241	OK	Q	Q	27	14	
	2255	OK	Q	Q	55		
24	2419			Q			19
	2431			Q		31	
	2461	OK	Q	Q	61		

Orientation

Polarization code



Viewed from receptacle front face.
Insulator rotated inside metal body.

Shell size	Layout	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
	B19	0	30	165	315	-

Shell size	Layout	N	W	X	Y	Z
16	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

Ordering information

SOURIAU part numbers

Basic series	8526	2H	10	06	P	N
Shell type:						
1H: Solder mount hermetic receptacle						
2H: Square flange hermetic receptacle						
7H: Jam nut hermetic receptacle						
Shell size:						
08, 10, 12, 14, 16, 18, 20, 22, 24						
Contact layout:						
See page 30						
Contact type:						
P: Pin						
Orientation:						
N, W, X, Y, Z - see previous page						

MS qualified products

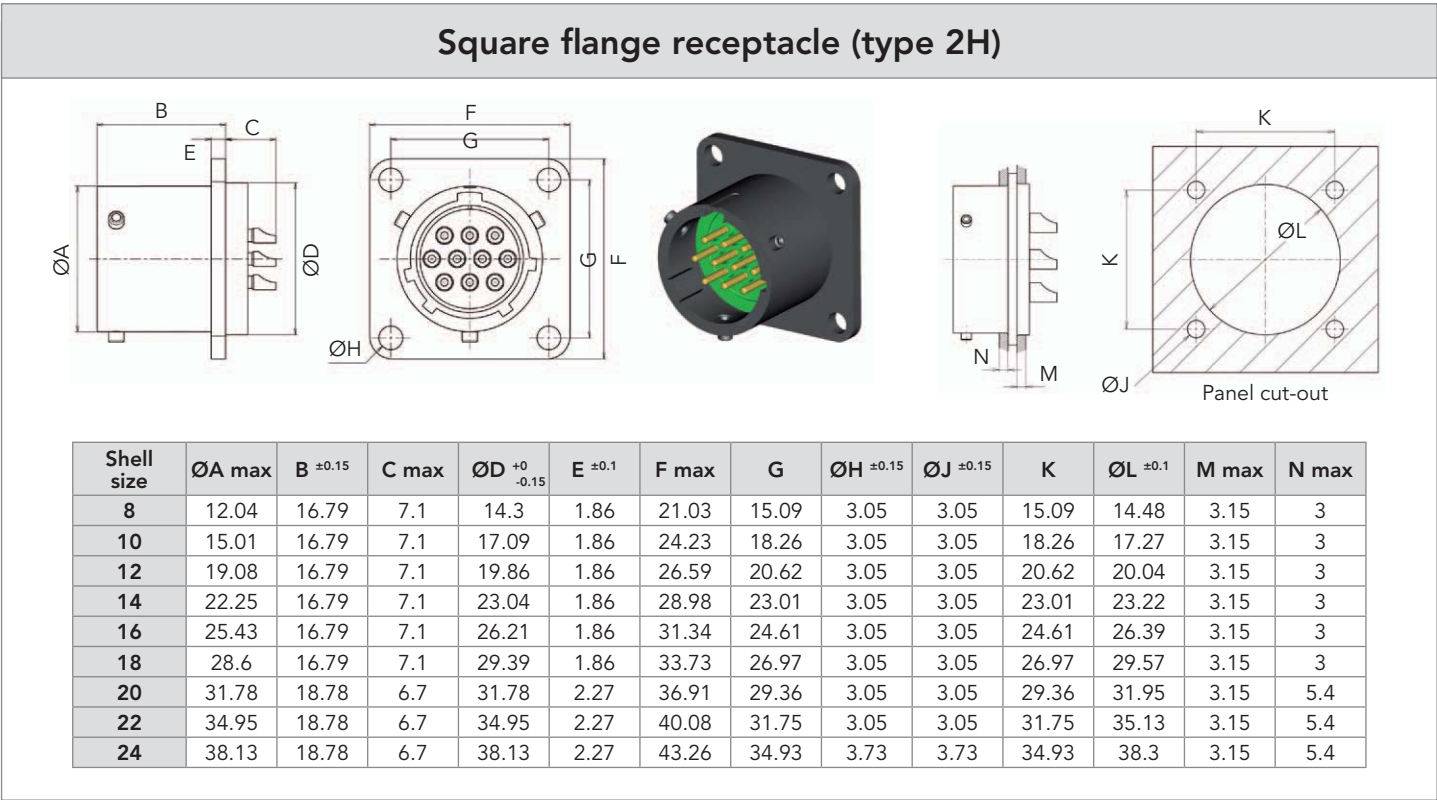
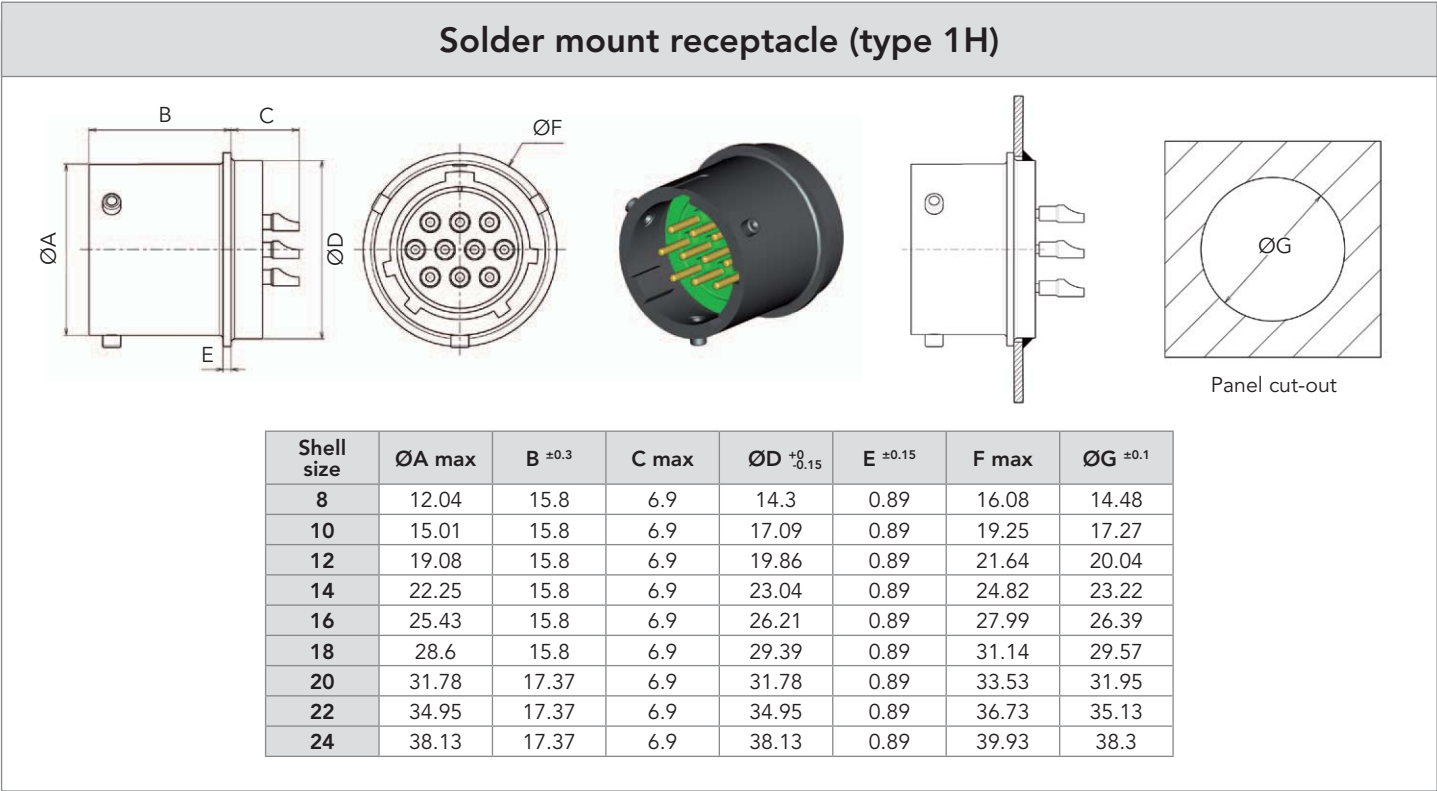
Basic series	MS	3440H	10	C	6	P
Shell type:						
3440H: Square flange hermetic receptacle						
3443H: Solder mount hermetic receptacle						
3449H: Jam nut hermetic receptacle						
Shell size:						
08, 10, 12, 14, 16, 18, 20, 22, 24						
Materials and terminal:						
C: Steel, solder bucket						
Contact layout:						
See page 30						
Contact type:						
P: Pin						
Orientation:						
None: Normal (N)						
W, X, Y, Z - see previous page						

Cross reference list

Receptacle type	SOURIAU	HE312
Solder mount	8526 1H •••• P □	HE312 1H •••• P □ 2
Square flange	8526 2H •••• P □	HE312 2H •••• P □ 2
Jam nut	8526 7H •••• P □	HE312 7H •••• P □ 2

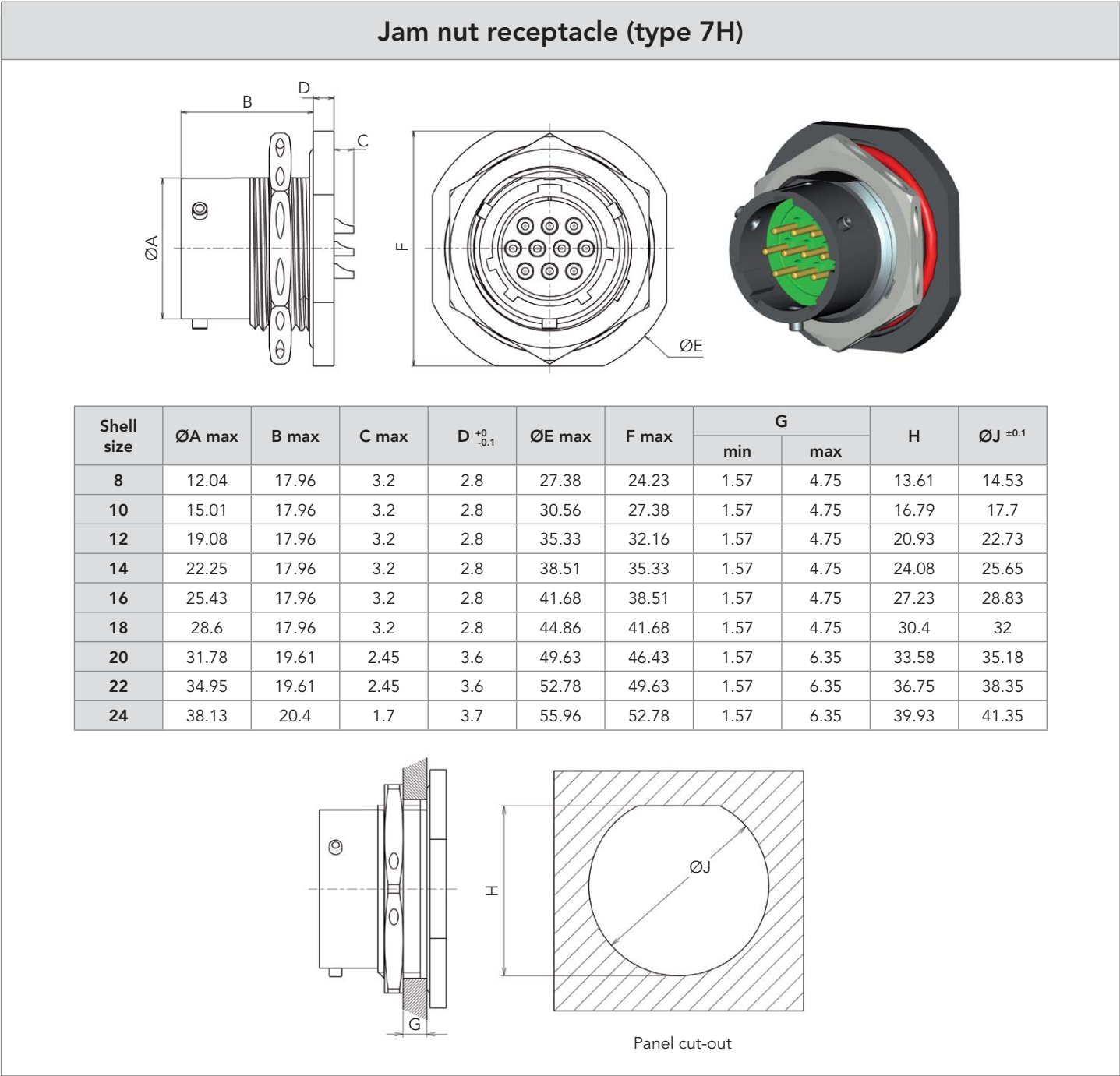
•••• Shell size & layout □ Orientation

Dimensions



Note: All dimensions are in millimeters (mm)

Dimensions



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 1)	7.5	10.6	15	19	23.3	29.4	31	41	46.7
Square flange receptacle (type 2)	11	13.6	18	23	28.3	36.4	42	49	57
Jam nut receptacle (type 7)	20	25	38	44	51.5	62	85	94	116

Gaskets & O'rings

Shell size	Gasket for receptacle Type 0 (not delivered with connector)		O ring for receptacle Type 7 (delivered with connector)	
	Part number	Material	Part number	Material
08	85251431	Fluorosilicone	AS3582-016	Silicone
10	85251432	Fluorosilicone	AS3582-018	Silicone
12	85251433	Fluorosilicone	AS3582-021	Silicone
14	85251434	Fluorosilicone	AS3582-023	Silicone
16	85251435	Fluorosilicone	AS3582-025	Silicone
18	85251436	Fluorosilicone	AS3582-027	Silicone
20	85251437	Fluorosilicone	AS3582-029	Silicone
22	85251438	Fluorosilicone	AS3582-030	Silicone
24	85251439	Fluorosilicone	AS3582-031	Silicone



Description

- Thread coupling connector
- EN2997 and ESC10 qualified connector
- High temperature and high vibration resistance (engine environment)
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to install square flange receptacle
 - . easy to replace jam nut receptacle
- Fully interchangeable with MIL 83723 hermetic connectors
- 230V qualified versions where higher voltage is used to reduce cable weight
- Solder cup or PC tail contacts
- Specific fuel tank version for long term fuel immersion

Technical features

Mechanical

- **Shell:**
Passivated Stainless steel
- **Seals:**
Silicone elastomer
- **Contact:**
Ferrous alloy
- **Contact plating:**
Gold
- **Endurance:**
500 mating/unmating operations

Electrical

- **Max current rating per contact:**

Contact size	20	16	12	6
Rating (A)	5	10	17	46

- **Dielectric withstanding voltage:**

Altitude	Service I
Sea level	1500 Vrms
15 000 m	600 Vrms
21 000 m	400 Vrms
33 000 m	200 Vrms

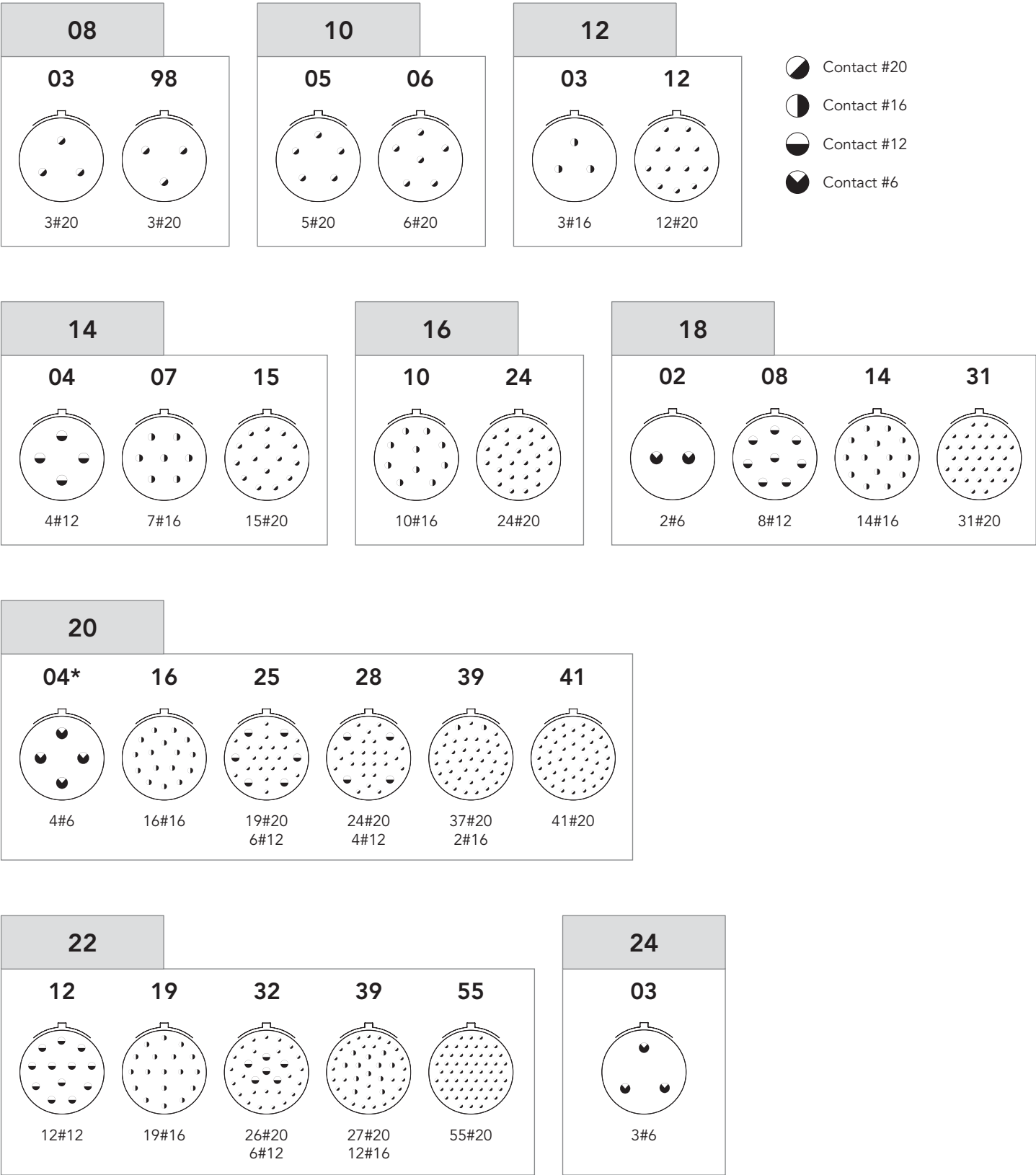
- **Contact resistance at rated current:**
Maximum initial contact resistance at ambient temperature

Contact size	20	16	12	6
Resistance mΩ	12	8.5	5	2

Environmental

- **Operating temperature:**
Class Y : -65°C to 200°C
Class YE : -65°C to 260°C cyclic
- **Hermeticity:**
Leak rate < 1.10⁻⁷ atm.cm³/s (helium gas test)
- **Salt spray:**
500 hours

Contact layouts



* ABS Power correspondance.

Contact layouts (matrix)

Shell size	Layout	8533 hermetic	EN2997 hermetic	ESC10 hermetic	8533 spec. 22	Number of contacts				
						#22D	#20	#16	#12	#6
08	08-03	OK	Q	Q	OK		3			
	08-06	Available on request, please consult us				6				
	08-98	OK	Q	Q			3			
10	10-05	OK	Q	Q			5			
	10-06	OK	Q		OK		6			
	10-12	Available on request, please consult us				12				
12	12-03	OK	Q	Q				3		
	12-12	OK	Q	Q	OK		12			
	12-21	Available on request, please consult us				21				
14	14-04	OK	Q	Q					4	
	14-07	OK	Q	Q	OK			7		
	14-15	OK	Q	Q			15			
16	16-10	OK	Q	Q				10		
	16-24	OK	Q	Q			24			
18	18-02	Available on request, please consult us								2
	18-08	Available on request, please consult us							8	
	18-14	Available on request, please consult us						14		
	18-31	OK	Q	Q			31			
20	20-04	OK								4
	20-16	Available on request, please consult us						16		
	20-25	Available on request, please consult us					19		6	
	20-28	Available on request, please consult us					24		4	
	20-39	Available on request, please consult us					37	2		
	20-41	OK	Q	Q	OK		41			
22	22-12	Available on request, please consult us							12	
	22-19	Available on request, please consult us						19		
	22-32	Available on request, please consult us					26		6	
	22-39	Available on request, please consult us					27	12		
	22-55	OK	Q	Q			55			
24	24-03	OK								3

OK = SOURIAU's layout

Q = SOURIAU's qualified layout

Connector weights (in grams)

Shell size	Square flange receptacle	Jam nut receptacle	Solder mount receptacle
08	18	29	15
10	24	37	21
12	31	50	31
14	40	58	35
16	49	72	46
18	54	79	51
20	62	87	59
22	77	108	73
24	88	122	86

Cross reference list

SOURIAU	MIL 83723
85332Y •••• P □	M83723/88Y •••• □
85337Y •••• P □	M83723/89Y •••• □
85331Y •••• P □	M83723/90Y •••• □

•••• Shell size & layout □ Orientation

Ordering information

SOURIAU part numbers

Basic series	8533	1	Y	10	05	P	N
Shell type: 1: Solder mount receptacle 2: Square flange receptacle 7: Jam nut receptacle							
Class: Y: 200°C YE: 260°C							
Shell size: 08 - 10 - 12 - 14 - 16 - 18 - 20 - 22							
Contact layout: See page 37							
P: Pin contacts							
Orientation: N - 6 - 7 - 8 - 9 - T - V - Y (see page 43)							
Specification (other specification: see page 42): None: Standard hermetic version (solder cup) - except for layout 20-04 and 24-03 112: Standard hermetic version (solder cup) - for layout 20-04 and 24-03 only 22: Fuel tank version (solder cup) 600: 230V qualified connector, delivered with contacts (layouts 12-03, 14-04, 14-07 & 20-04 - orientation T & V) A73: Tin plating on contacts rear side and gold plating on contacts front side							

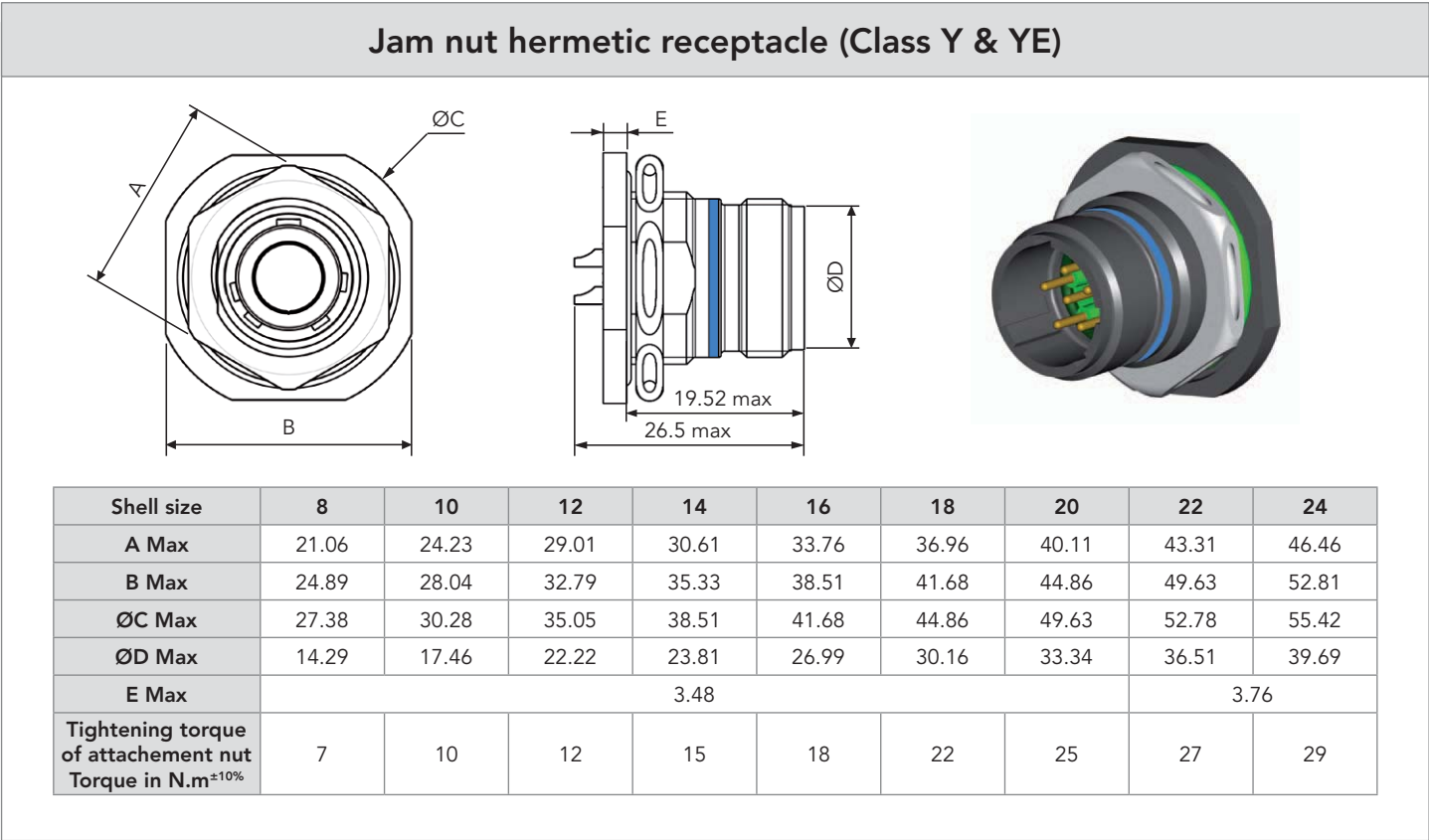
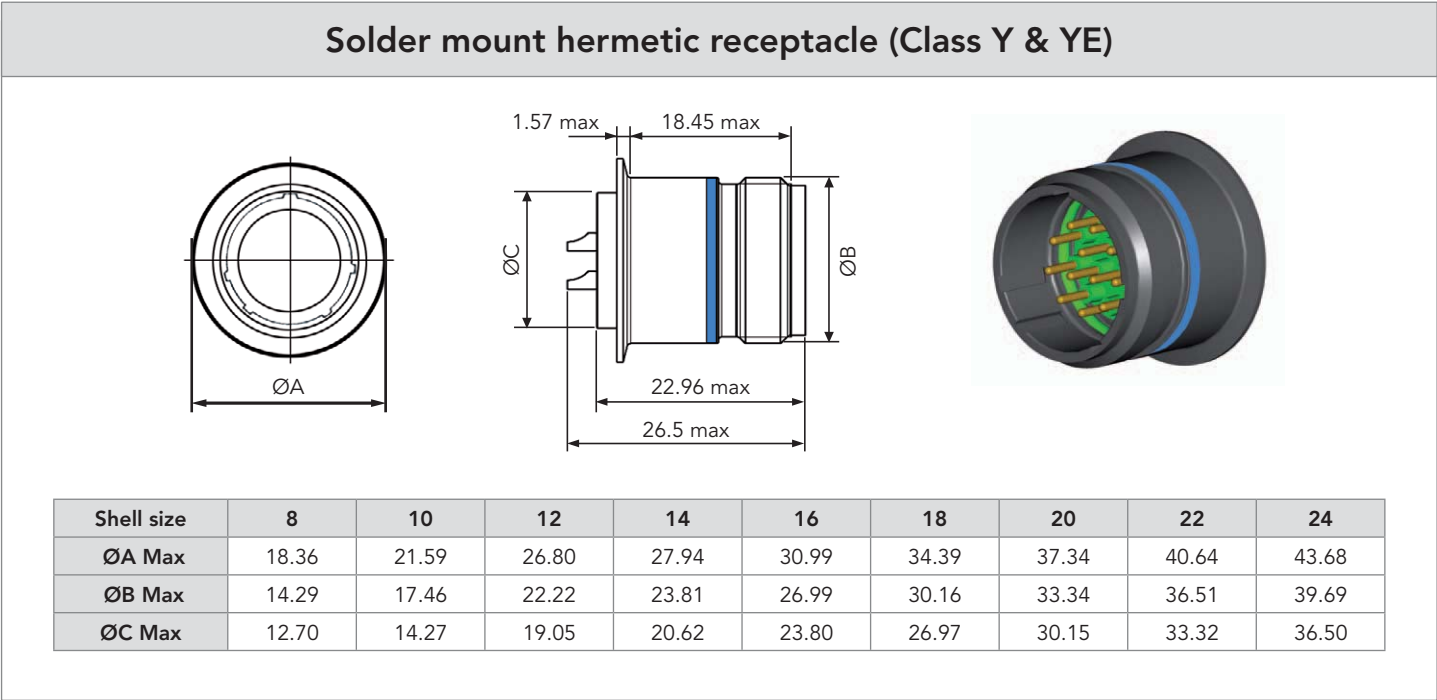
EN2997 qualified products

Basic series	EN 2997	Y	0	08	03	M	N
Class: Y: 200°C YE: 260°C							
Shell type: 0: Square flange receptacle 1: Solder mount receptable 7: Jam nut receptable							
Shell size: 08 - 10 - 12 - 14 - 16 - 18 - 20 - 22							
Contact layout: See page 37							
M: Pin contacts							
Orientation: N - 6 - 7 - 8 - 9 - Y (see page 43)							

ESC10 qualified products

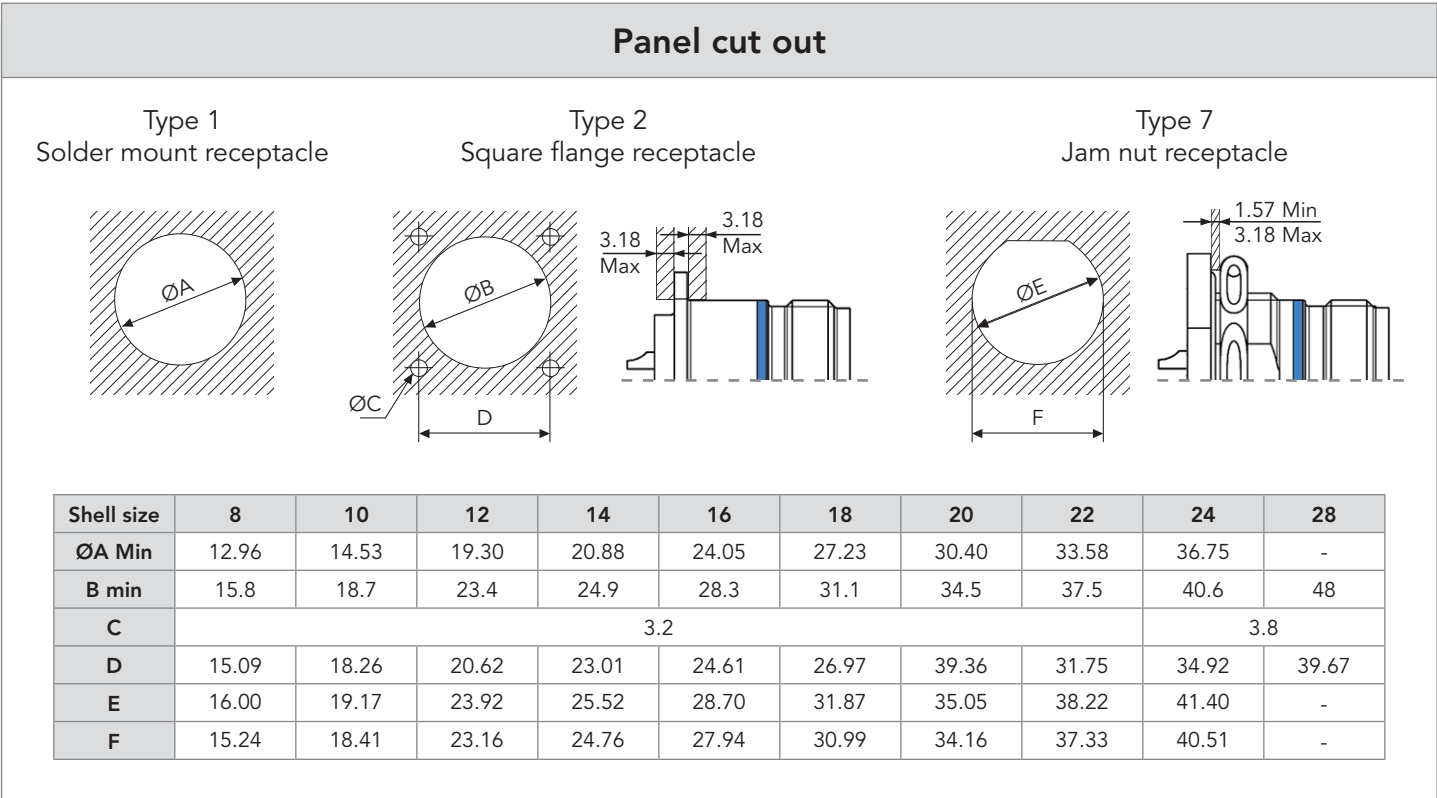
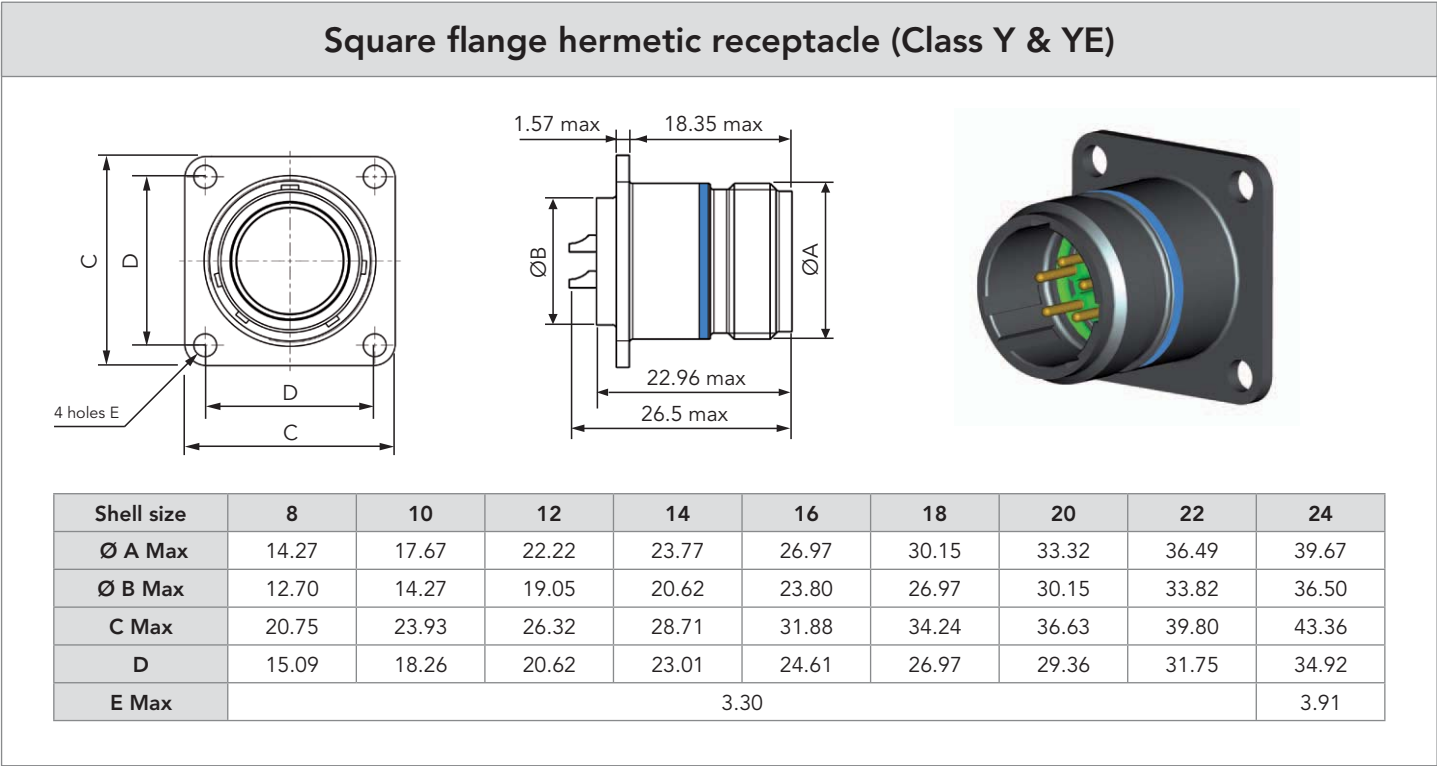
Basic series	ESC 10	YE	1	08	03	P	N	0
Class: YE: 260°C								
Shell type: 1: Solder mount receptacle 2: Square flange receptacle 3: Jam nut receptable								
Shell size: 08 - 10 - 12 - 14 - 16 - 18 - 20 - 22								
Contact layout: See page 37								
P: Pin contacts								
Orientation: N - 6 - 7 - 8 - 9 - Y (see page 43)								
Contact termination: 0: Solder cup contacts B: Eyelet contacts								

Dimensions



Note: All dimensions are in millimeters (mm)

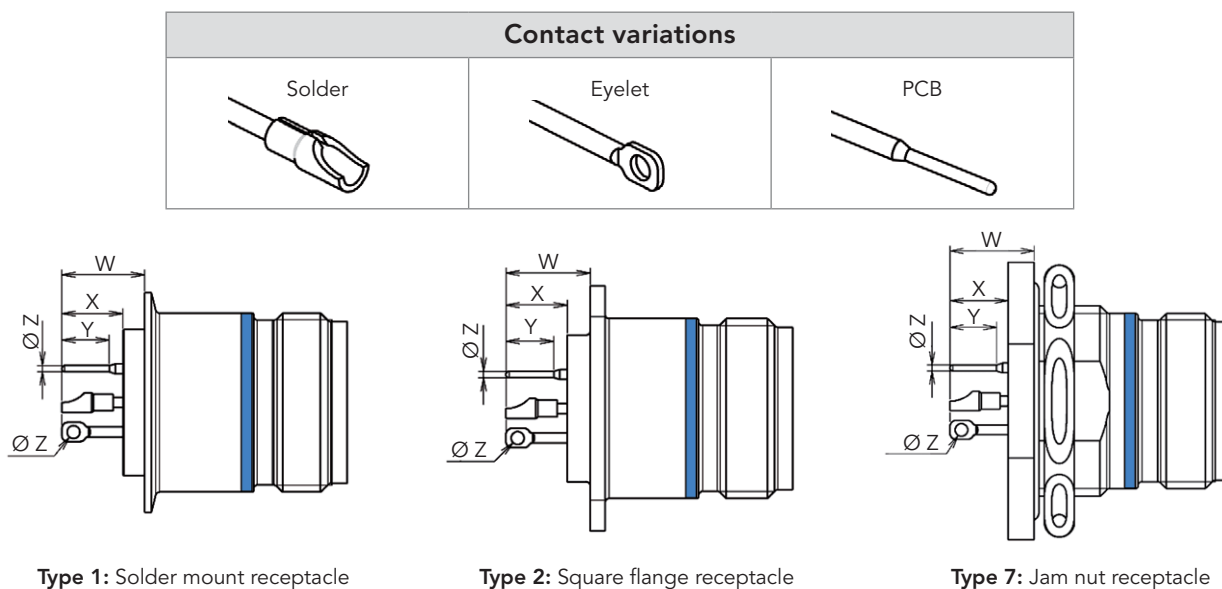
Dimensions



Note: All dimensions are in millimeters (mm)

Contact variations

Contact variations summary

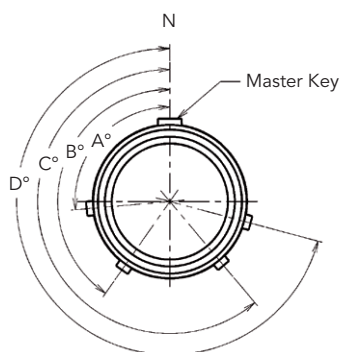


Type of contact	Specification	Contact size	W Max	X Min	Y Min	Ø Z Max	Designation
PCB contacts	05	20	8.78	4.78	4.50	0.65	PCB contact
	118	20	10.88	6.88	6.25	0.65	Long PCB contact
Eyelet contacts	105	20	6.98	2.98	4.05 ^{+0.2}	1.25 _{-0.15}	Eyelet contact
Solder cup contacts	Without specification or specification 22	20-16-12	7.78	2.98	-	-	Standard Solder cup contact
	112	6	9.03	5.13	-	-	
	62	20-16-12	7.78	2.98	-	-	Solder cup contact tin plated on rear part

Note: for other contact length, please consult us.

Orientation

Orientation



Front face view of receptacle

Shell size	Angles	N	6	7	8	9	T	V	Y
08	A°	105	102	80	35	64	-	-	-
	B°	140	132	118	140	155	-	-	-
	C°	215	248	230	205	234	-	-	-
	D°	265	320	312	275	304	-	-	-
10	A°	105	102	80	35	64	-	-	25
	B°	140	132	118	140	155	-	-	115
	C°	215	248	230	205	234	-	-	220
	D°	265	320	312	275	304	-	-	270
12 & 14	A°	105	18	92	84	24	55	50	98
	B°	140	149	152	152	135	145	156	152
	C°	215	192	222	204	199	228	218	268
	D°	265	259	342	334	240	280	290	338
20	A°	105	18	92	84	24	45	60	98
	B°	140	149	152	152	135	160	165	152
	C°	215	192	222	204	199	210	235	268
	D°	265	259	342	334	240	300	285	338
16, 18, 22 & 24	A°	105	18	92	84	24	-	-	98
	B°	140	149	152	152	135	-	-	152
	C°	215	192	222	204	199	-	-	268
	D°	265	259	342	334	240	-	-	338

Gaskets & O'rings

Shell size	Gasket for square flange receptacle (not delivered with connector)		O'ring for jam nut receptacle 200°C Class (delivered with connector)		O'ring for jam nut receptacle 260°C Class (delivered with connector)	
	Part number	Material	Part number	Material	Part number	Material
08	85251431	Fluorosilicone	8530455	Silicone	85227654	Silicone THT
10	85251432	Fluorosilicone	85300795	Silicone	85227655	Silicone THT
12	85251433	Fluorosilicone	8530458	Silicone	85227656	Silicone THT
14	85251434	Fluorosilicone	8530796	Silicone	85227632	Silicone THT
16	85251435	Fluorosilicone	8530797	Silicone	85227657	Silicone THT
18	85251436	Fluorosilicone	8530798	Silicone	85227658	Silicone THT
20	85251437	Fluorosilicone	85301548	Silicone	85227927	Silicone THT
22	85251438	Fluorosilicone	8530800	Silicone	85227659	Silicone THT



Description

- Thread coupling connector
- MIL-DTL-38999 Series III qualified
EN3645 compliant
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to install square flange receptacle
 - . easy to replace jam nut receptacle
- Signal and power contacts - up to size #4
- Special fuel tank versions for long term fuel immersion
- 230V qualified versions where higher voltage is used to reduce cable weight
- Solder cup, PC tail or eyelet contacts

Technical features

Mechanical

- **Shell:**
Class Y: passivated stainless steel
Class N: nickel plated stainless steel
- **Seals:**
Silicone elastomer
- **Contact:**
Gold plated ferrous alloy
- **Endurance:**
500 mating/unmating operations

Electrical

- Max current rating per contact:

Contact size	22D	20	16	12	8	4
Rating (A)	3	5	10	17	33	60

- Dielectric withstanding voltage:

Service	Sea level	30 000 m
M	1 300 Vrms	800 Vrms
I	1 800 Vrms	1 000 Vrms
II	2 300 Vrms	1 000 Vrms

- **Insulation resistance:**
5000 MΩ (under 500 Vdc)

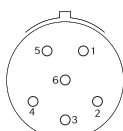
Environmental

- **Operating temperature:**
-65°C to 200°C
- **Hermeticity:**
Leak rate < 1.10⁻⁷ atm.cm³/s
(helium gas test)
- **Salt spray:**
Class Y: 500 hours
Class N: 48 hours

Contact layouts

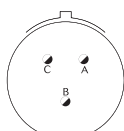
09 / A

35



6#22D
Service M

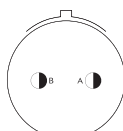
98



3#20
Service I

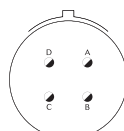
11 / B

02



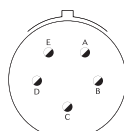
2#16
Service I

04



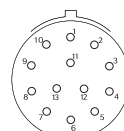
4#20
Service I

05



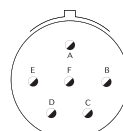
5#20
Service I

35



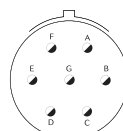
13#22D
Service M

98



6#20
Service I

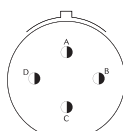
99



7#20
Service I

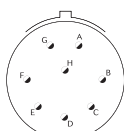
13 / C

04



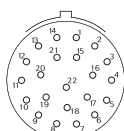
4#16
Service I

08



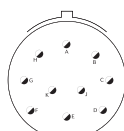
8#20
Service I

35



22#22D
Service M

98

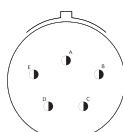


10#20
Service I

- Contact #22D
- Contact #20
- Contact #16
- Contact #12
- Contact #8 Power

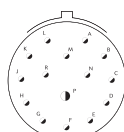
15 / D

05



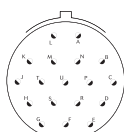
5#16
Service II

15



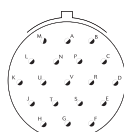
1#16, 14#20
Service I

18



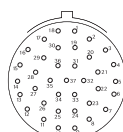
18#20
Service I

19



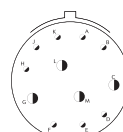
19#20
Service I

35



37#22D
Service M

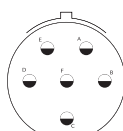
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4#16, 8#20
Service I

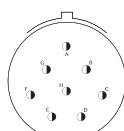
17 / E

06



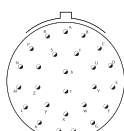
6#12
Service I

08



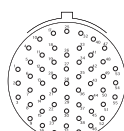
8#16
Service II

26



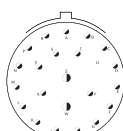
26#20
Service I

35



55#22D
Service M

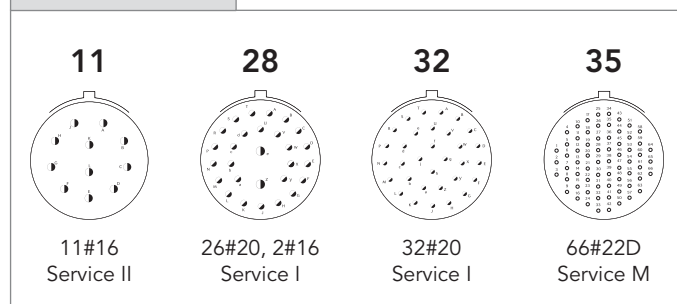
99



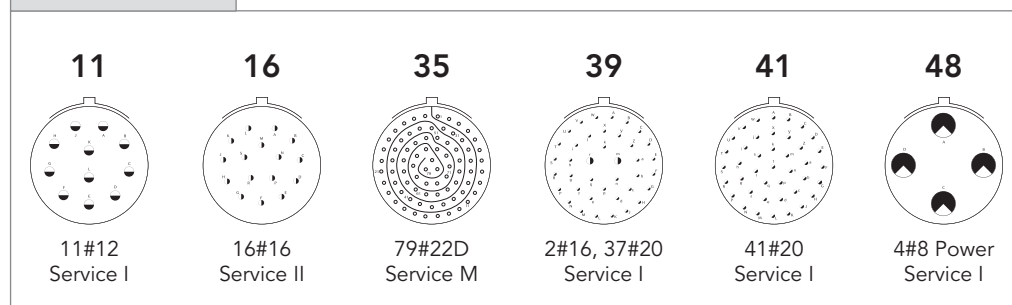
2#16, 21#20
Service I

Contact layouts

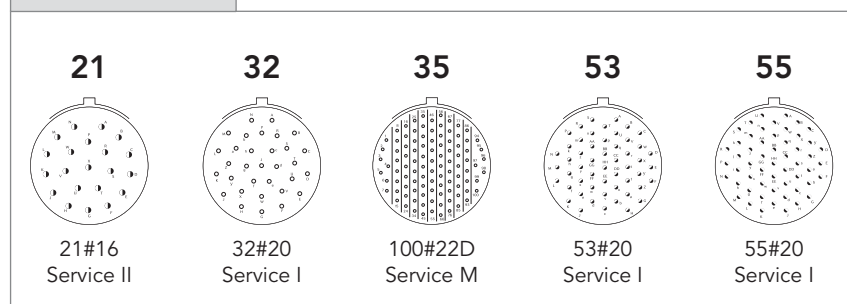
19 / F



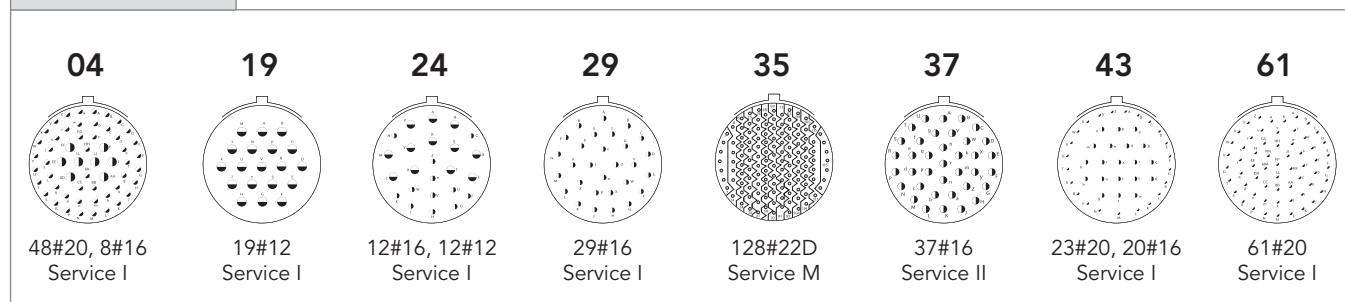
21 / G



23 / H



25 / J



Contact layouts (matrix)

Shell size	Layout	D38999 QPL	8D type 21 Spec. 600*	8D Spec. 022*	8D Spec. 840 & 850*	8D Spec. A76*	Number of contacts					
							#22D	#20	#16	#12	#8	#4
09 / A	09-35	Q		OK	OK		6					
	09-98	Q		OK	OK			3				
11 / B	11-02	Q			OK				2			
	11-04	Q			OK			4				
	11-05	Q			OK			5				
	11-12	OK	Available on request, please consult us							1		
	11-22	OK	Available on request, please consult us				4					
	11-35	Q		OK	OK	OK	13					
	11-98	Q			OK			6				
	11-99	Q		OK	OK			7				
13 / C	13-03	OK	Available on request, please consult us						3			
	13-04	Q	OK		OK				4			
	13-08	Q			OK			8				
	13-26	OK	Available on request, please consult us				6			2		
	13-35	Q		OK	OK		22					
	13-98	Q			OK			10				
15 / D	15-05	Q	Available on request, please consult us						5			
	15-15	Q	Available on request, please consult us					14	1			
	15-18	Q			OK			18				
	15-19	Q		OK	OK			19				
	15-35	Q		OK	OK	OK	37					
	15-97	Q	Available on request, please consult us					8	4			
17 / E	17-06	Q	OK	OK						6		
	17-08	Q	OK		OK				8			
	17-20	OK	Available on request, please consult us				16			4		
	17-26	Q			OK			26				
	17-35	Q		OK	OK	OK	55					
	17-99	Q	Available on request, please consult us					21	2			
19 / F	19-11	Q	Available on request, please consult us						11			
	19-28	Q	Available on request, please consult us					26	2			
	19-32	Q	Available on request, please consult us					32				
	19-35	Q			OK		66					
21 / G	21-11	Q								11		
	21-16	Q	Available on request, please consult us						16			
	21-35	Q		OK	OK		79					
	21-39	Q	Available on request, please consult us					37	2			
	21-41	Q			OK			41				
	21-48	OK	OK								4	
	21-59	OK	Available on request, please consult us				55			4		
23 / H	23-21	Q			OK				21			
	23-32	Q	Available on request, please consult us					32				
	23-35	Q			OK		100					
	23-53	Q			OK			53				
	23-54	OK	Available on request, please consult us				40		9	4		
	23-55	Q			OK			55				
25 / J	25-04	Q			OK			48	8			
	25-19	Q								19		
	25-24	Q	Available on request, please consult us						12	12		
	25-29	Q			OK				29			
	25-35	Q	Available on request, please consult us				128					
	25-37	Q	Available on request, please consult us						37			
	25-43	Q	Available on request, please consult us					23	20			
	25-44	OK	Available on request, please consult us						4			4
	25-61	Q	Available on request, please consult us					61				

OK = SOURIAU's layout

Q = SOURIAU's qualified layout

* see next page for specifications details

Connector part numbers

MIL-DTL-38999 part number

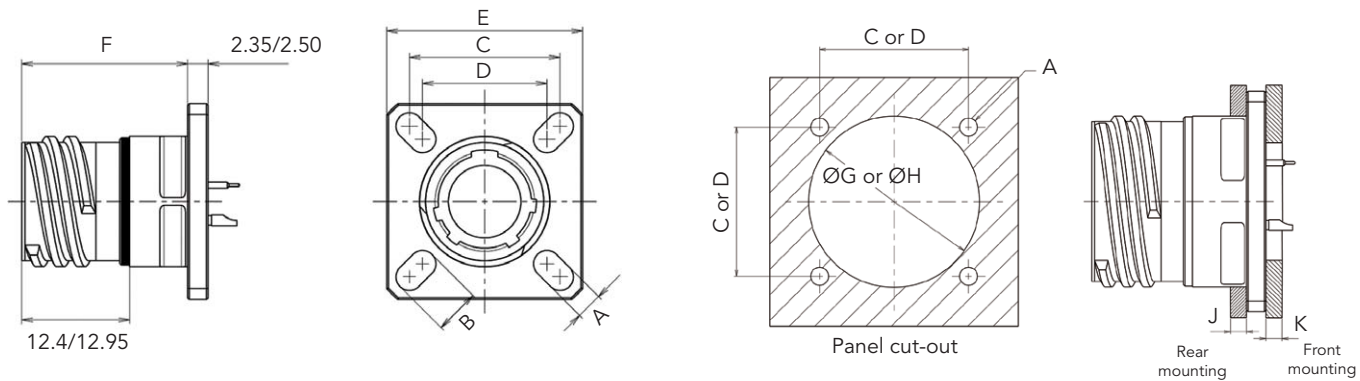
Basic Series	D38999	21	Y	A	35	P	N
Shell style: 21: Square flange receptacle 23: Jam nut receptacle 25: Solder mount receptacle 27: Weld mount receptacle							
Class: Y: Passivated stainless steel N: Nickel plated stainless steel							
Shell size: 09=A, 11=B, 13=C, 15=D, 17=E, 19=F, 21=G, 23=H, 25=J							
Contact layout: See pages 45 & 46							
Contact type: P: Male solder cup C: Male PC tail contacts X: Male eyelet contacts							
Orientation: N, A, B, C, D, E							

SOURIAU part number

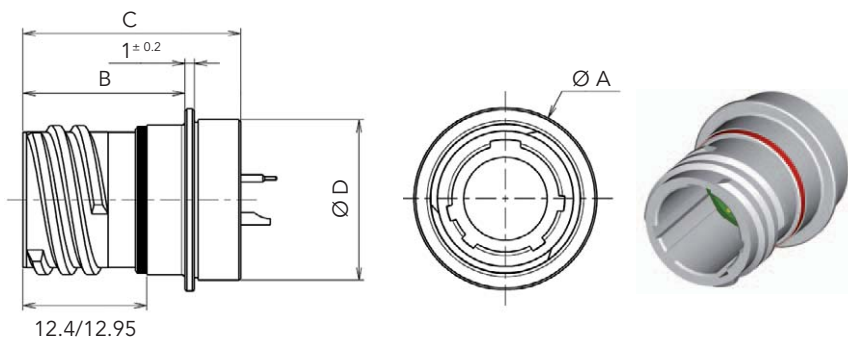
Basic Series	8D	0	Y	13	35	P	N	022
Shell style: 0: Square flange receptacle 1: Solder mount receptacle 4: Weld mount receptacle 7: Jam nut receptacle								
Class: Y: Passivated stainless steel N: Nickel plated stainless steel								
Shell size: 09, 11, 13, 15, 17, 19, 21, 23, 25								
Contact layout: See pages 45 & 46								
Contact type: P: Male solder cup C: Male PC tail contacts X: Male eyelet contacts								
Orientation: N, A, B, C, D, E								
Specification: 022: Fuel tank version 840: Short PCB contact 850: Long PCB contact 600: 230V qualified connector (layouts 13-04, 17-06, 17-08 & 21-48 - orientation T & V) A73: Tin plating on contacts rear side and gold plating on contacts front side A76: Fuel tank version with crimp removable contacts - Jam nut only								

Dimensions

Square flange receptacle (type 21)



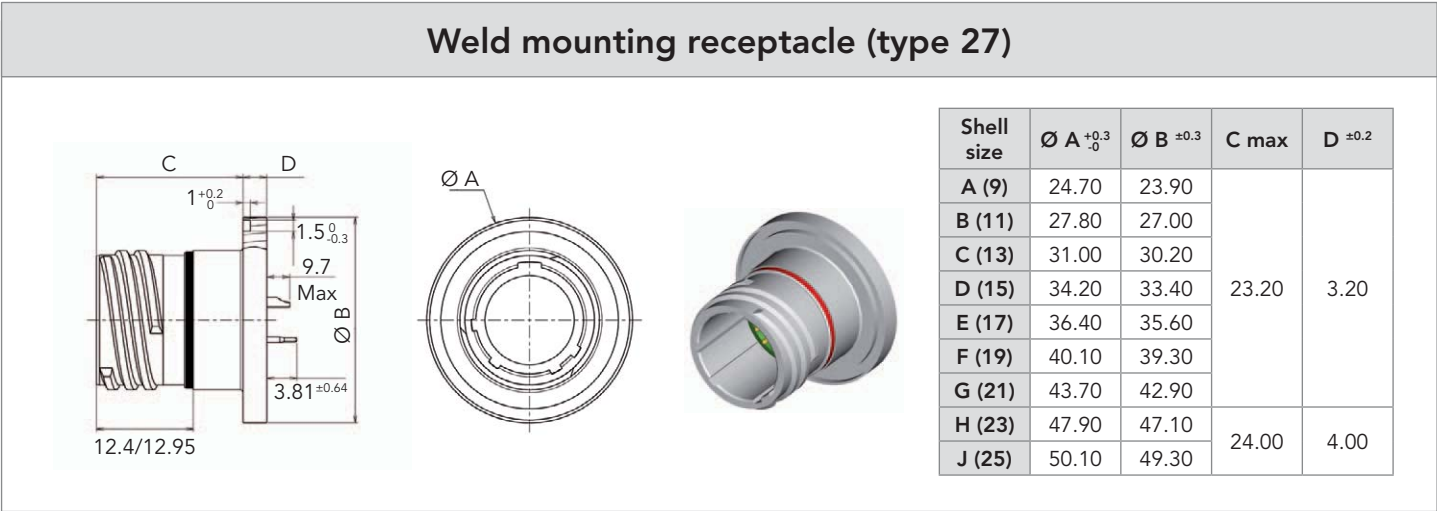
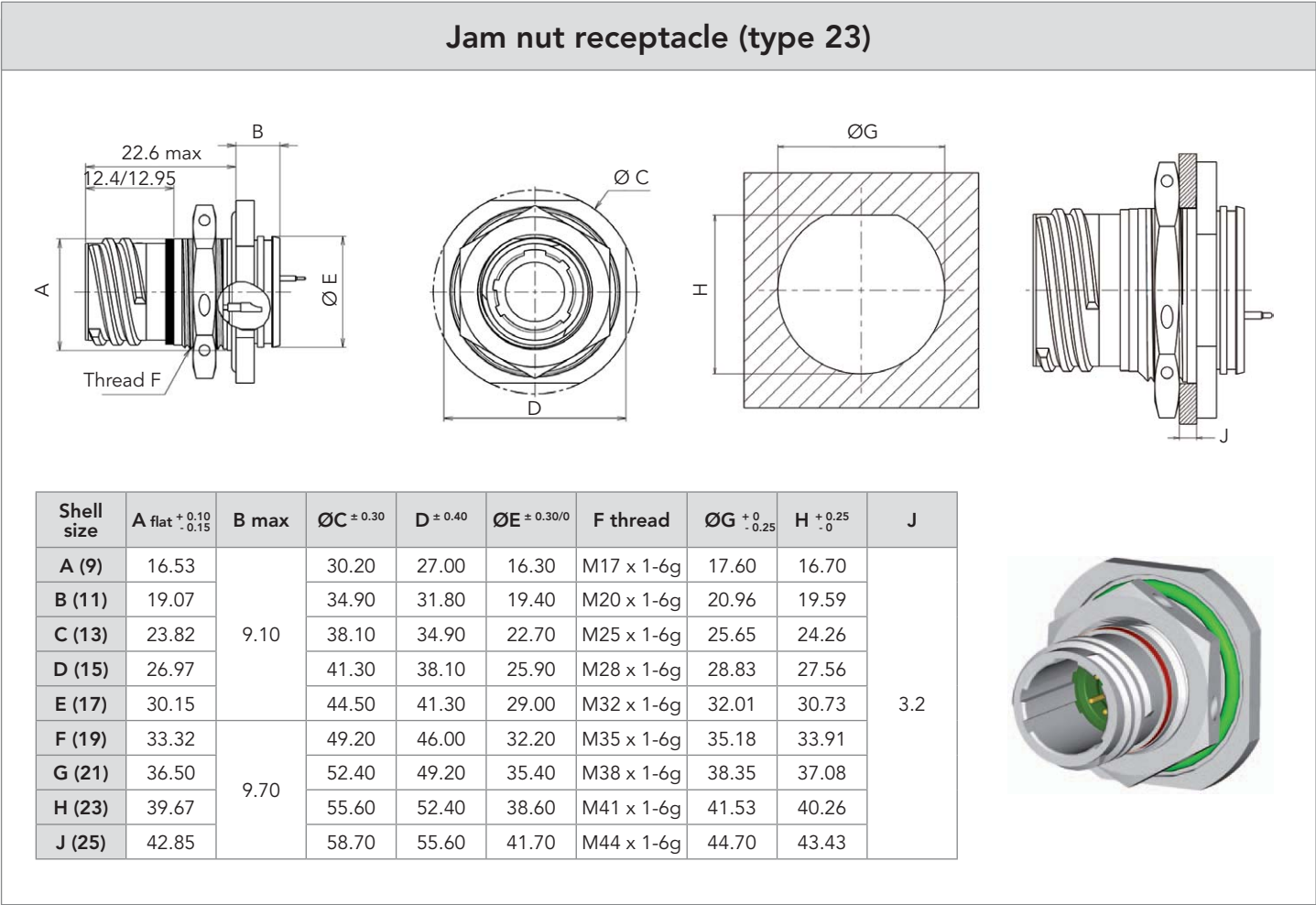
Solder mounting receptacle (type 25)



Shell size	Ø A max	B max	C max	D max
A (9)	19.40	17.20	23.80	17.10
B (11)	21.80			19.90
C (13)	24.90			23.10
D (15)	28.10			26.20
E (17)	31.30			29.40
F (19)	33.60			31.80
G (21)	36.80			35.00
H (23)	40.00		24.60	38.20
J (25)	43.20	41.30		

Note: All dimensions are in millimeters (mm)

Dimensions



Note: All dimensions are in millimeters (mm)

Orientations

Orientations

Viewed from
front face
of receptacle

A technical diagram of a circular receptacle shell. Four curved arrows, labeled A, B, C, and D, indicate different viewing orientations. Arrow A points towards the top of the shell. Arrow B points towards the left. Arrow C points towards the bottom-left. Arrow D points towards the bottom-right. The shell has a central circular opening and a small rectangular feature on the right side.

Viewed from
front face
of plug

A technical diagram of a circular plug shell. Four curved arrows, labeled A, B, C, and D, indicate different viewing orientations. Arrow A points towards the top of the shell. Arrow B points towards the right. Arrow C points towards the bottom-right. Arrow D points towards the bottom-left. The shell has a central circular opening and a small rectangular feature on the left side.

Shell size	Angles	N	A	B	C	D	E	T	V
9 (A)	A°	105	102	80	35	64	91	-	-
	B°	140	132	118	140	155	131		
	C°	215	248	230	205	234	197		
	D°	265	320	312	275	304	240		
11 (B) 15 (D)	A°	95	113	90	53	119	51	-	-
	B°	141	156	145	156	146	141		
	C°	208	182	195	220	176	184		
	D°	236	292	252	255	298	242		
13 (C)	A°	95	113	90	53	119	51	70	75
	B°	141	156	145	156	146	141	136	138
	C°	208	182	195	220	176	184	218	224
	D°	236	292	252	255	298	242	261	268
17 (E) 21 (G)	A°	80	135	49	66	62	79	58	85
	B°	142	170	169	140	145	153	162	150
	C°	196	200	200	200	180	197	188	191
	D°	293	310	244	257	280	272	316	307
19 (F) 23 (H) 25 (J)	A°	80	135	49	66	62	79	-	-
	B°	142	170	169	140	145	153		
	C°	196	200	200	200	180	197		
	D°	293	310	244	257	280	272		

Maximum connector weight (in grams)

Shell size	Square flange receptacle	Jam nut receptacle	Solder mount receptacle
09 (A)	23	39	21
11 (B)	28	53	25
13 (C)	35	63	31
15 (D)	41	73	38
17 (E)	57	92	53
19 (F)	60	106	55
21 (G)	65	118	57
23 (H)	75	132	68
25 (J)	91	154	83

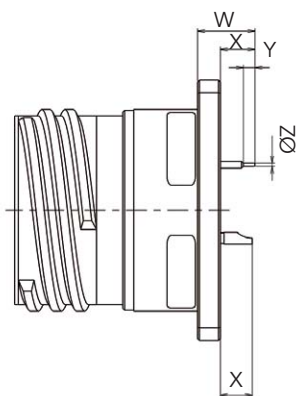
Gaskets & O'rings

Shell size	Gasket for receptacle Type 0 (not delivered with connector)		O ring for receptacle Type 7 (delivered with connector)	
	Part number	Material	Part number	Material
09 (A)	85995541	Fluorosilicone	AS3582-019	Silicone
11 (B)	85995542	Fluorosilicone	AS3582-022	Silicone
13 (C)	85995543	Fluorosilicone	AS3582-024	Silicone
15 (D)	85995544	Fluorosilicone	AS3582-026	Silicone
17 (E)	85995545	Fluorosilicone	AS3582-028	Silicone
19 (F)	85995546	Fluorosilicone	AS3582-128	Silicone
21 (G)	85995547	Fluorosilicone	AS3582-130	Silicone
23 (H)	85995548	Fluorosilicone	AS3582-132	Silicone
25 (J)	85995549	Fluorosilicone	AS3582-134	Silicone

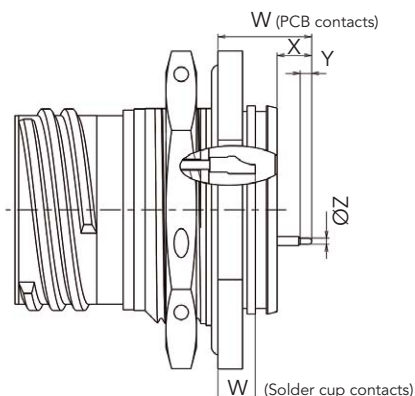
Note: All dimensions are in millimeters (mm)

Contact variations

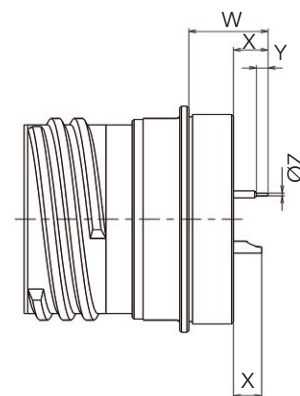
Contact variations summary



Type 21: Square flange receptacle



Type 23: Jam nut receptacle



Type 25: Solder mount receptacle

Type of contact	Specification	Type of shell	Contact size	W max	X min	Y min	ØZ max
Solder cup (P)	WF (F38999)	21	20 & 22	N/A	3.45	N/A	N/A
		23	20 & 22	4.5	N/A	N/A	N/A
		25	20 & 22	N/A	2.3	N/A	N/A
PCB (C)	WF (F38999)	21	16	6.65	3.45	N/A	N/A
			20			0.89	0.71
			22			0.89	0.38
		23	16	11.5	3.3	N/A	N/A
			20			0.89	0.71
			22			0.89	0.38
		25	16	10.75	3.4	N/A	N/A
			20	12.15		0.89	0.71
			22	13.55		0.89	0.38
	840 (8D)	21	20	8.05	4.85	4.5	0.62
			22	7.32	4.12	3.82	0.53
		23	20	11.8	3.6	4.5	0.62
			22	10.6	2.4	5.75	0.53
		25	20	10.15	3.7	4.5	0.62
			22	9.42	2.97	3.82	0.53
	850 (8D)	21	20	13	9.8	6	0.62
			22	10.69	7.49	7.35	0.53
		23	20	15.3	7.1	6.25	0.62
			22	16.2	8	9.25	0.45
		25	20	15.1	8.65	6	0.62
			22	12.79	6.34	7.35	0.53

Note: for other contact length, please consult us.



Description

- Bayonet coupling connector
- Micro miniature connector based on MIL-DTL-38999 standard
- Glass sealed hermetic:
 - . high hermeticity performance
 - . compact low profile
- Various mounting styles:
 - . compact solder mount receptacle
 - . easy to replace jam nut receptacle
- Solder cup or PC tail contacts
- Specific fuel tank version for long term fuel immersion

Technical features

Mechanical

- **Shell:** Stainless steel
- **Shell plating:** Passivated
- **Insulator:** Glass bead
- **Contact:** Nickel iron
- **Contact plating:** Gold
- **Endurance:** 500 mating cycles

Electrical

- **Test voltage:**
 - Service I: 1800V
 - Service M: 1300V
- **Contact resistance:** 2 mΩ
- **Insulation resistance:**
 - ≥ 5000MΩ (at 500Vdc)
- **Contact rating:**
 - Size 16: 10 A
 - Size 20: 5 A
 - Size 22D: 3 A
 - Size 26: 1.8 A

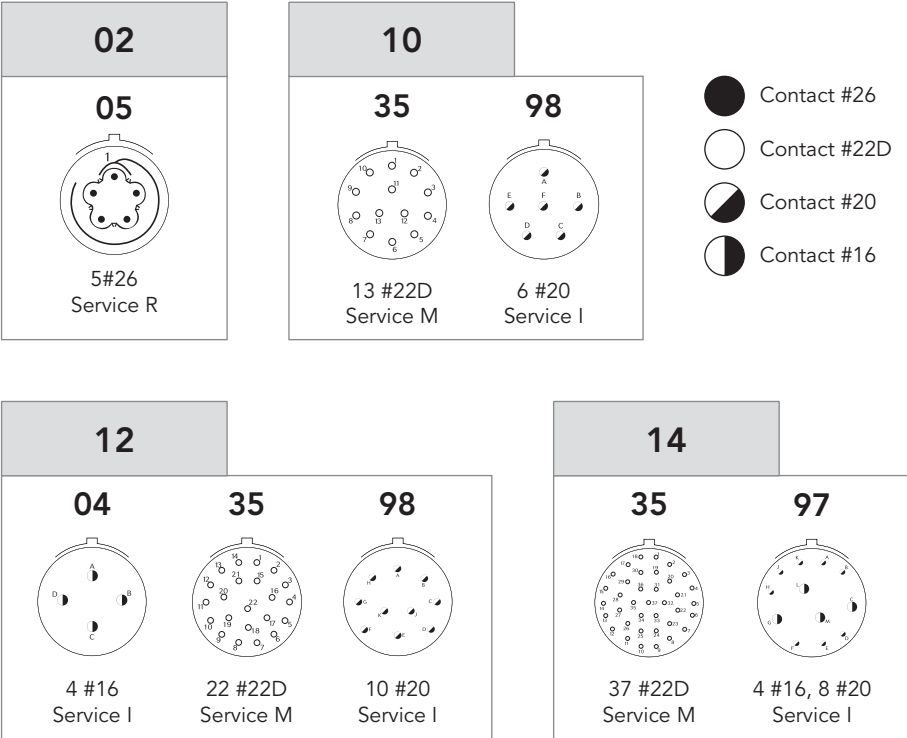
Environmental

- **Operating temperature:**
 - 55°C to +175°C
- **Sealing mated connectors:**
 - IP67 (1 meter for 30 min minimum)
- **Salt spray:** 48 hours
- **Hermeticity:**
 - Leak rate < 1.10⁻⁷ atm.cm³/s (helium gas test)

Ordering information

Basic series	8STA	1	Y	02	05	P	N	A73
Shell type								
1: Solder flange								
7: Jam nut receptacle								
Class								
Y: Hermetic version								
Shell size: 02, 04, 06, 08, 10, 12, 14								
Contact layout: See next page for available layouts								
Type of contact								
C: Male PC tail contacts								
P: Male solder cup contacts								
Orientation								
N: Red / A: Yellow / B: Blue / C: Orange / D: Green								
Specification (mandatory)								
022: Fuel immersible version								
A73: Tin plating on contacts rear side and gold plating on contacts front side								

Contact layouts (viewed from front face of male insulator)



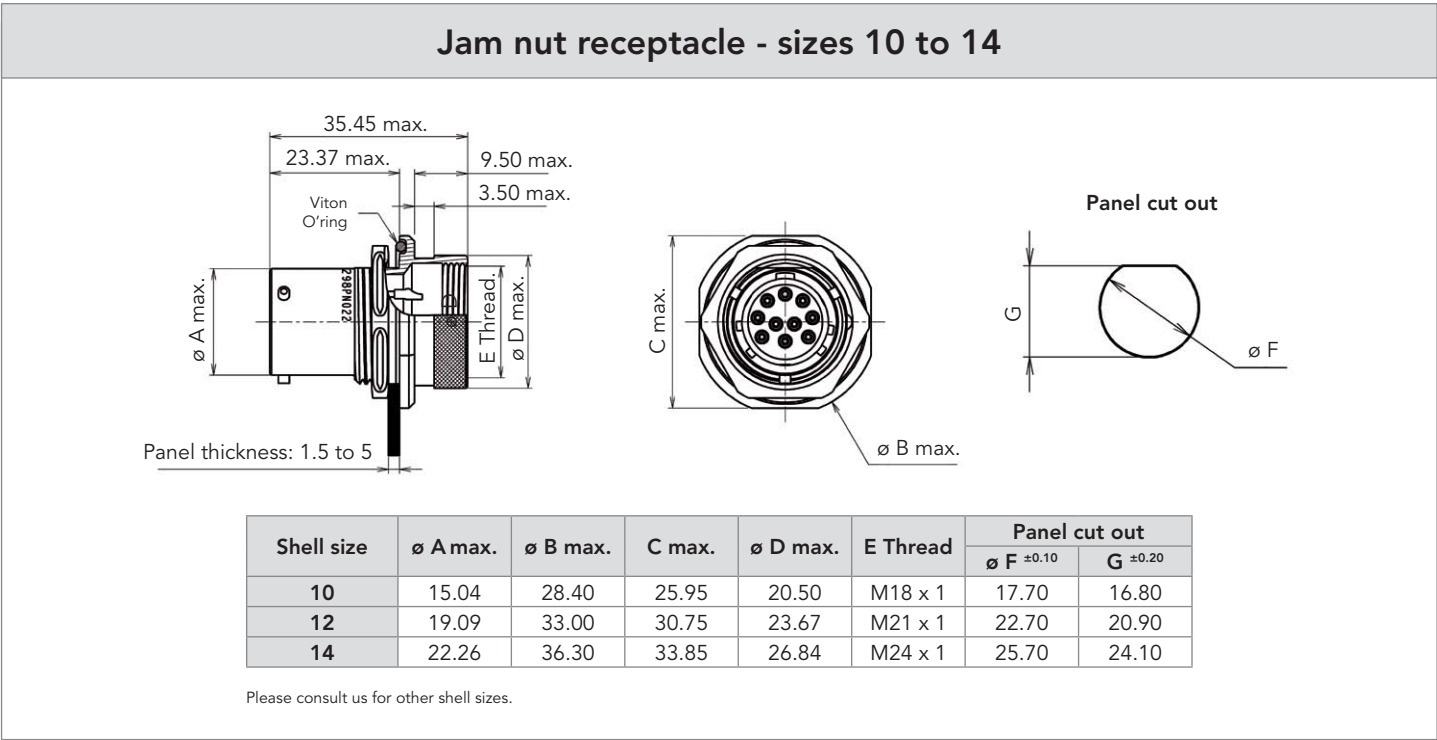
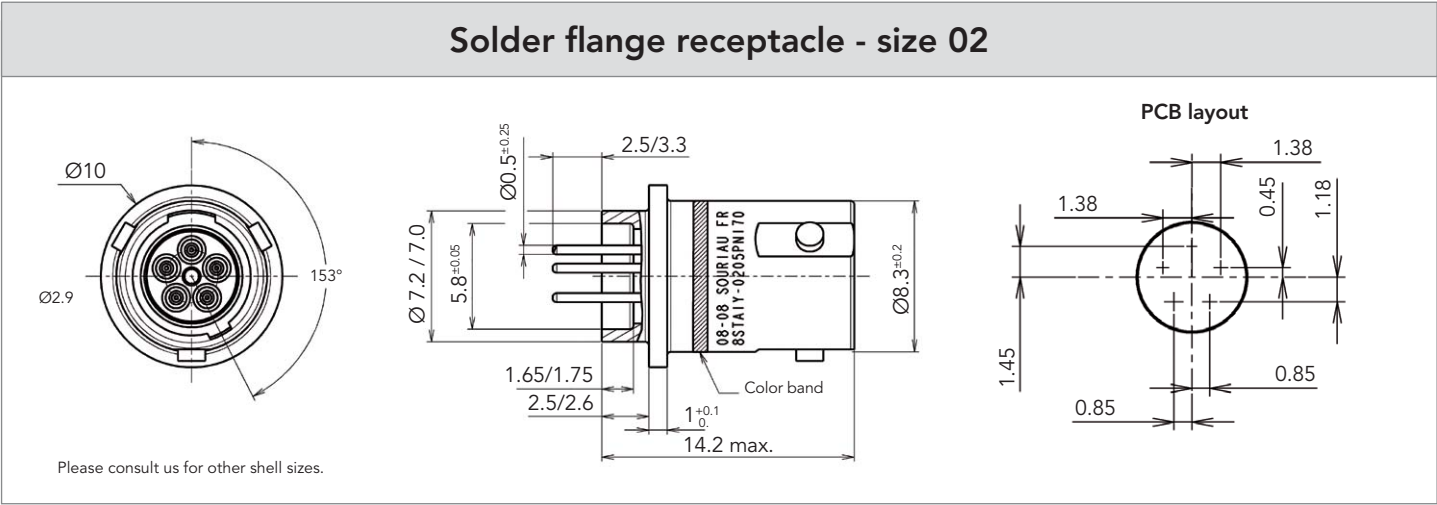
Contact layouts (matrix)

Shell size	Layout	Hermetic 8STA	Number of contacts				
			#26	#22D	#20	#16	#12
02	02-05	OK	5				
	02-35	Available on request, please consult us		3			
04	04-05	Available on request, please consult us	5				
	04-06	Available on request, please consult us	6				
	04-35	Available on request, please consult us		3			
06	06-05	Available on request, please consult us	5				
	06-09	Available on request, please consult us	9				
	06-35	Available on request, please consult us		5			
08	08-12	Available on request, please consult us	12				
	08-35	Available on request, please consult us		6			
	08-98	Available on request, please consult us			3		
10	10-02	Available on request, please consult us				2	
	10-04	Available on request, please consult us			4		
	10-05	Available on request, please consult us			5		
	10-22	Available on request, please consult us		4			
	10-26	Available on request, please consult us	26				
	10-35	OK		13			
	10-98	OK			6		

Shell size	Layout	Hermetic 8STA	Number of contacts				
			#26	#22D	#20	#16	#12
12	12-03	Available on request, please consult us				3	
	12-04	OK				4	
	12-08	Available on request, please consult us			8		
	12-26	Available on request, please consult us		6			2
	12-35	OK		22			
	12-43	Available on request, please consult us	43				
	12-98	OK			10		
14	14-05	Available on request, please consult us				5	
	14-15	Available on request, please consult us			14	1	
	14-18	Available on request, please consult us			18		
	14-19	Available on request, please consult us			19		
	14-35	OK		37			
	14-68	Available on request, please consult us	68				
	14-97	OK			8	4	

OK = SOURIAU's layout

Dimensions



Note: All dimensions are in millimeters (mm)



Description

- Rackable/screw coupling connector
- MIL C 24308 C compliant
- High density D-Sub interface
- Glass sealed hermetic
- 2 fixing types:
 - . Fast and interchangeable screw mounting
 - . Hermetic solder mounting
- Solder cup or PC tail contacts
- Large shell plating type:
 - . Gold
 - . Tin
 - . Cadmium

Technical features

Mechanical

- **Shell:**
Steel
- **Shell plating:**
Cadmium, gold, bright tin lead, mat RoHS tin
- **Contact:**
Ferrous alloy
- **Contact plating:**
Gold, mat tin
- **Endurance:**
500 mating/unmating operations

Electrical

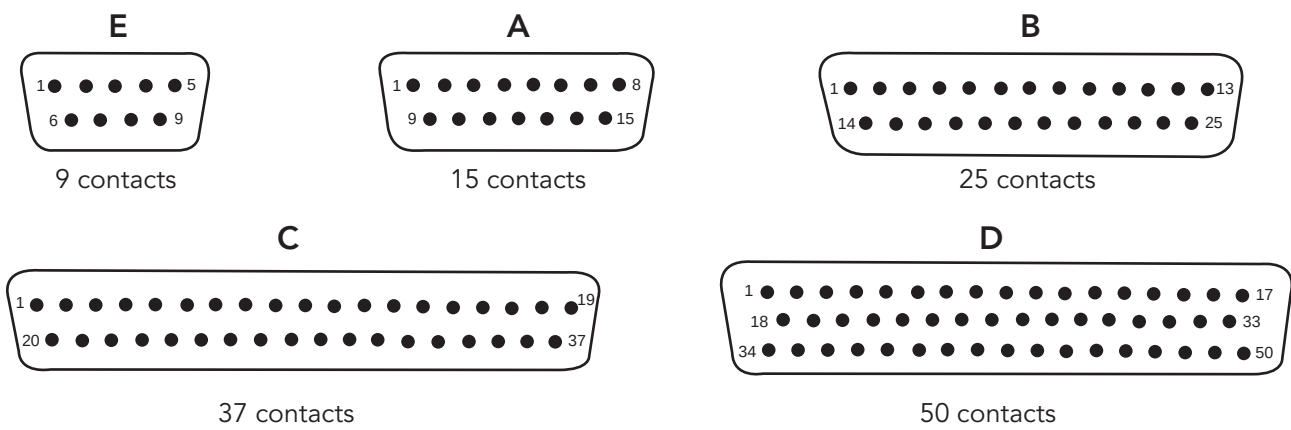
- **Contact rating:**
5A max
- **Test voltage:**
750 Vrms (max Vrms/50Hz)
- **Insulation resistance:**
 $\geq 5000 \text{ M}\Omega$
- **Contact resistance:**
 $\leq 14 \text{ m}\Omega$

Environmental

- **Operating temperature:**
-55°C to 125°C
- **Hermeticity:**
Leak rate $< 1.04 \cdot 10^{-5} \text{ atm.cm}^3/\text{s}$
(helium gas test)
- **Salt spray:**
48 hours (cadmium)
24 hours (tin)

Contact layouts

Viewed from front face of male insulator. Contacts are individually numbered on both side of insulator.



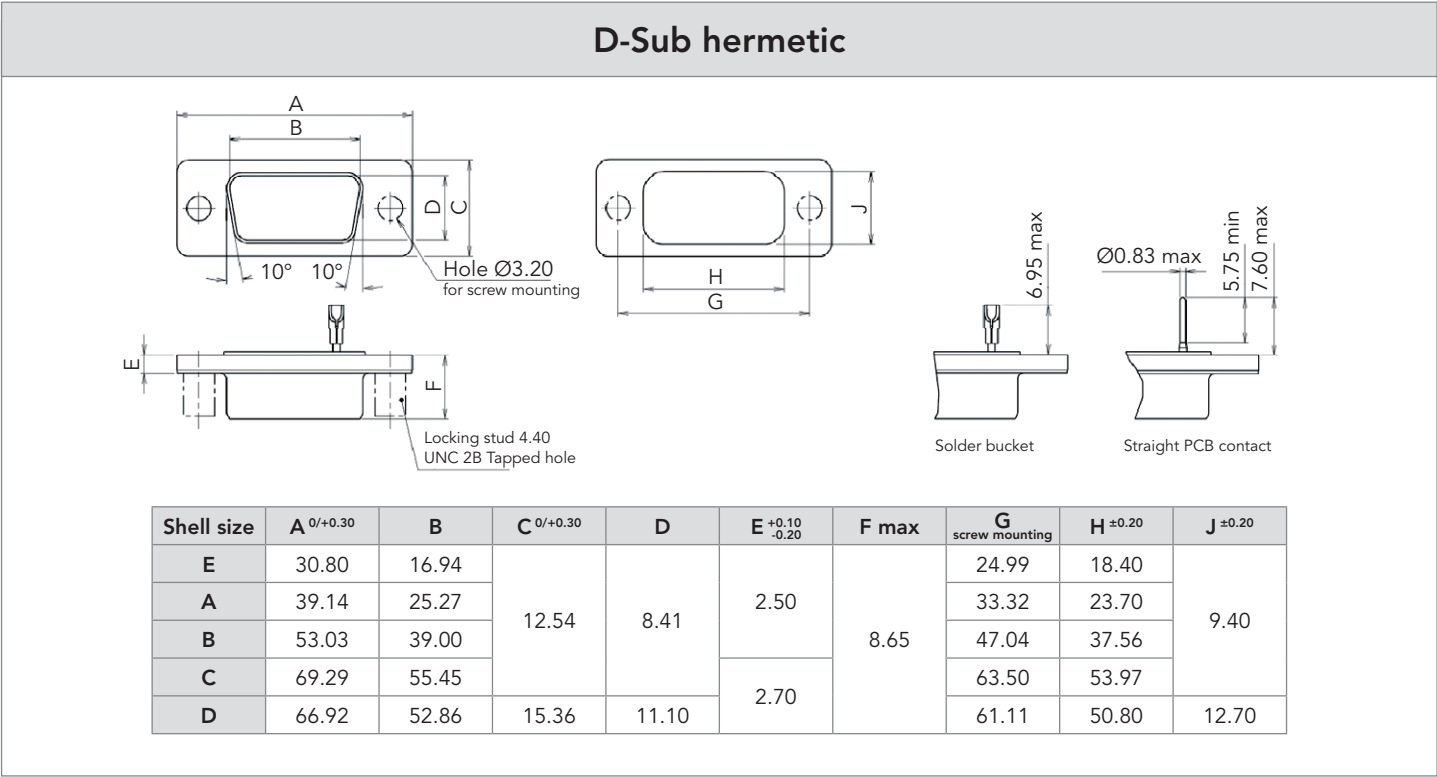
Ordering information

Basic Series						D	E	H	09	P	002
Shell size:											
E, A, B, C, D											
Class:											
H: Hermetic											
Number of contacts:											
09 (E), 15 (A), 25 (B), 37 (C), 50 (D)											
Contact type:											
P: Pin											
Specification:											
Shell plating	Contacts plating	Solder mounting				Screw mounting					
		with locking stub		without locking stub							
		Solder bucket	Straight PCB contact	Solder bucket	Straight PCB contact	Solder bucket	Straight PCB contact				
Cadmium	Gold	006	008	002	004	102	104				
Tin lead	Gold	005	010	007	016	107	116				
Mat tin	Mat tin	-	009	-	-	-	-				
	Gold	-	-	-	026	-	-				
Gold	Gold	-	-	-	-	122	124				

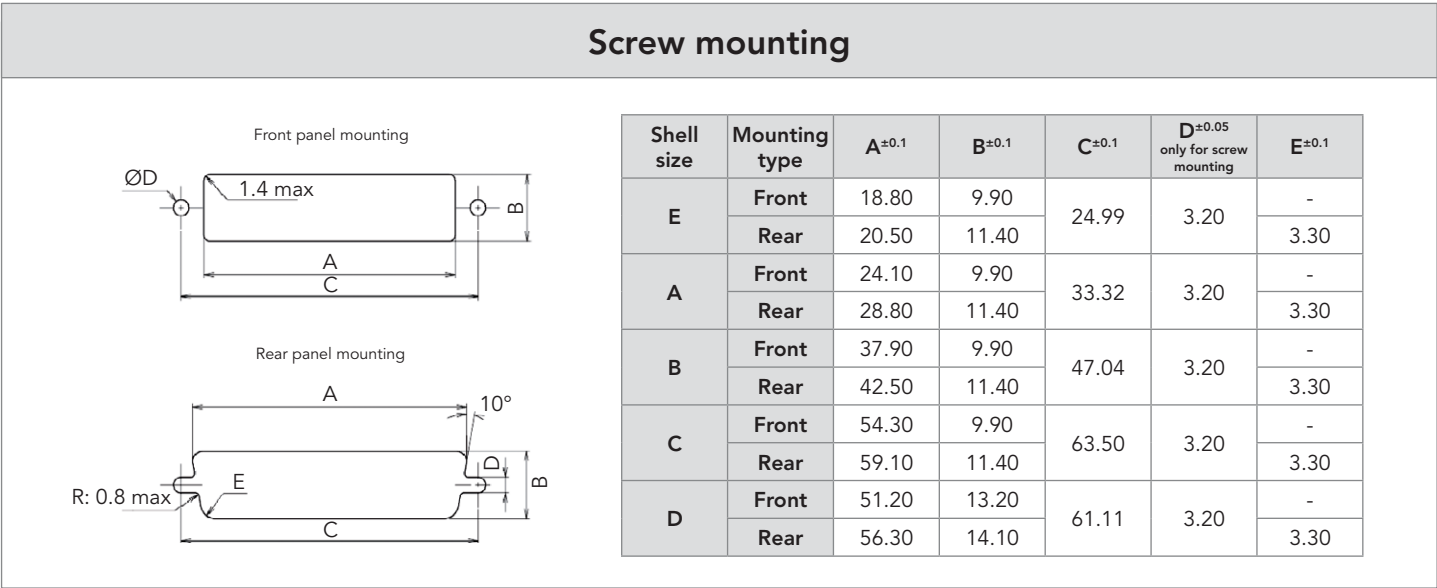
Cross reference list

SOURIAU	M24308 (not QPL)	SOURIAU	M24308 (not QPL)
DEH09P005	M24308/9-1	DEH09P007	M24308/9-11
DAH15P005	M24308/9-2	DAH15P007	M24308/9-12
DBH25P005	M24308/9-3	DBH25P007	M24308/9-13
DCH37P005	M24308/9-4	DCH37P007	M24308/9-14
DDH50P005	M24308/9-5	DDH50P007	M24308/9-15

Dimensions

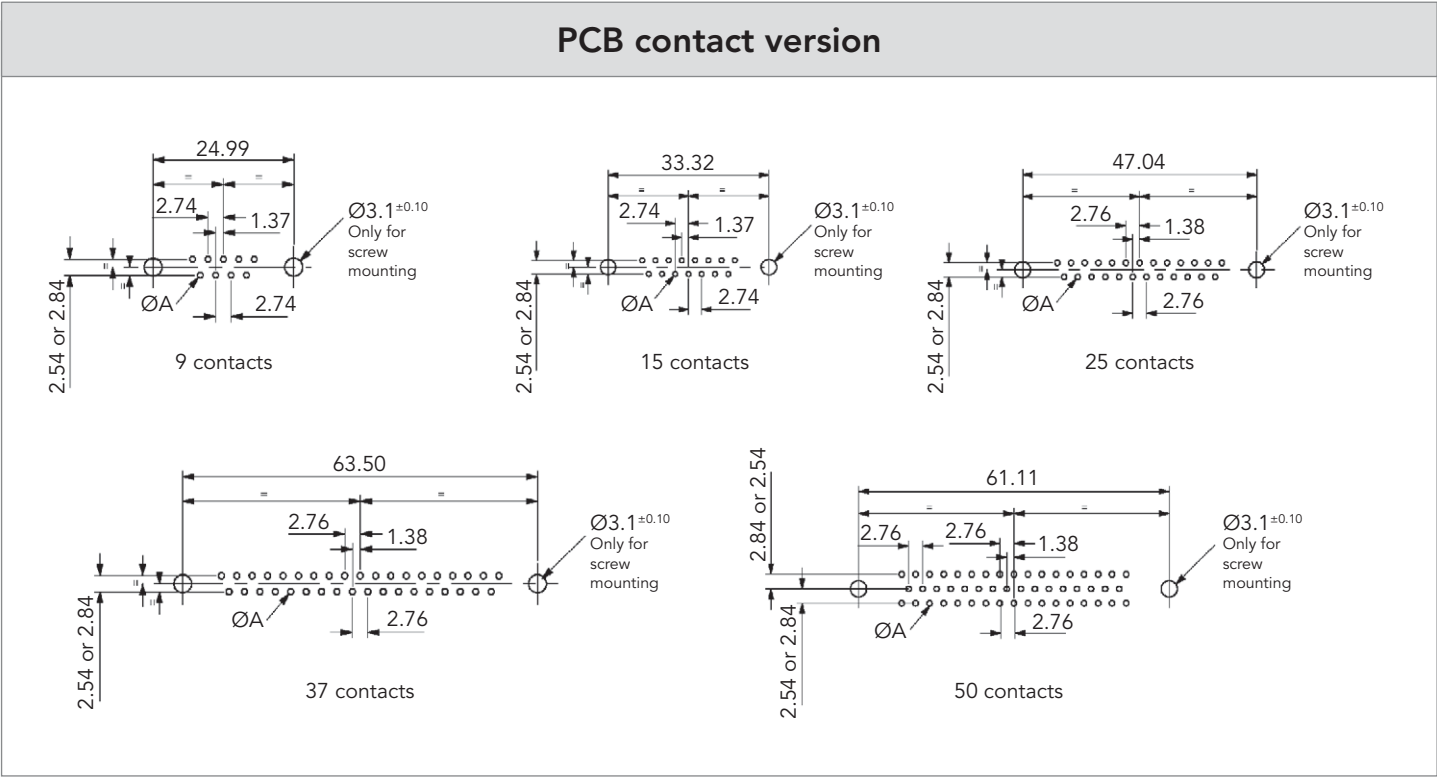


Panel cut-out



Note: All dimensions are in millimeters (mm)

PCB drilling



Accessories

D-Sub hermetic cap



Shell size	Cap part number
E	70 508
A	70 509
B	70 510
C	70 511
D	70 512

Note: All dimensions are in millimeters (mm)

HERMETIC

Hermetic

Range Extension

■ Standard glass to metal sealing technologies:

Removable crimp contacts	62
Hermetic receptacles with stand-offs	62
8LT27 rack & panel hermetic connector	63
Panel bulkhead	63
Hermetic compact connector metallized	64
Solder contacts on both sides of bulkhead	64
Contact grounded on the shell	65
Thermocouple	65

■ Alternative sealing technologies:

Resin sealed connector	66
------------------------------	----

Standard glass to metal sealing technologies

Removable Crimp 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.



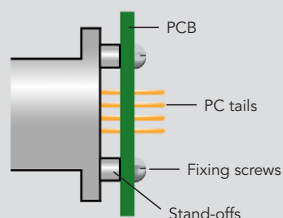
See «MIL-DTL-38999, EN3646, EN2997 Fuel Tank Connector» datasheet on www.souriau.com

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: PC tail to PCB stresses are eliminated 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» datasheet on www.souriau.com

Standard glass to metal sealing technologies

8LT27 Rack & Panel Hermetic Connector

Rack & panel glass sealed receptacle. Combine the easy use of blind mateable connectors to excellent hermeticity.

Blind connection:

- . Per HE308 standard.
- . Fixed receptacle to the float mounting plug: just push to connect... and release to disconnect!
- . Superior misalignment allowances:



Axial ±1mm

Angular ±1mm

Longitudinal ±1mm

High pressure performance:

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



See «8LT27 Series - Hermetic Connectors» datasheet on www.souriau.com

Hermetic Feedthrough

Glass fused hermetic through bulkhead. Connector derivatives from the bulkhead feed-through range.

Simplified use. Quick and easy:

- . Each face of the receptacle mates to a plug.
- . Quick cable integration.
- . Easy maintenance.

Secured pressure differential:

- . Glass fused insert enables it to resist high pressure differences, even when unmated.
- . Leakage 1,000 times lower than standard connectors.

Male/male interface:

- . Each side of the receptacle is populated with male contacts.
- . For male/female options, see the reinforced sealing bulkhead range.



See «Hermetic Feed-through» datasheet on www.souriau.com

Standard glass to metal sealing technologies

Hermetic Compact Connector Metallized

AM89 Series Servo Control Connector.
Shielded and space saving receptacle with hermetic performance.

High density solution:

- . 4 contacts #20 in standard.
- . Other arrangements available on request.

High hermeticity:

- . Glass to metal sealing technology.
- . Leak rate $<1.10^{-7}$ atm.cm³/s.
- . Housing made of stainless steel.

Compact solution:

- . Oval flange solution.

Large range of applications:

- . Suitable for primary and secondary actuators.



See «AM89 Receptacle - Hermetic Connectors»
datasheet on www.souriau.com

Solder Contacts on Both Sides of Bulkhead

8STA connector designed for high vibration environment. Wire soldered on both sides of the feed-through: no plugs needed.

Cost and space saving:

- . Adapted to space-constrained area.
- . No plugs necessary.

Easy to solder:

- . Contacts fully tin plated.
- . Different contact sizes available.

High performance sealing:

- . $<1.10^{-7}$ atm.cm³/s.

Heat shrink boot version:

- . AM44 connector with specific shell:



See «8STA Series Hermetic Feed-through»
datasheet on www.souriau.com

Standard glass to metal sealing technologies

Contact Grounded on the Shell

Hermetic connector with one or several contacts directly grounded on the shell.

Time saving:

- . No specific wiring operation required.

Quality control:

- . Grounding operation done in controlled conditions.

Compact:

- . No additional pigtail needed.



Thermocouple

Hermetic connector with Kp/Kn contacts for integration into thermocouple sensors.

Standard interface:

- . Solution compatible with EN2997, MIL-DTL-38999, MIL-DTL-26482 and EN3646 standards.

High hermeticity:

- . Leak rate $< 1.10^{-7}$ atm.cm³/s (helium gas test).

Easy integration into thermocouple sensors:

- . Same conductive materials used as thermocouple sensors.
- . Solder flange with specific dimensions available.
- . Housing available in 304L, 316L and other materials on request.



Alternative sealing technologies

Resin Sealed Connector

Connector with reinforced sealing. Resin sealed for harsh environment applications. Up to 1000 times higher sealing than standard version.

Wide availability:

- . All 38999 layouts.
- . Aluminum, including RoHS Black Zinc Nickel.
- . Composite for ultra low weight.
- . Titanium or stainless steel for outdoor application.

Temperature:

- . Fast temperature change: from -55°C to 125°C.
- . Compatible with wave or iron soldering.

Large contacts offer:

- . PC tail or solder contacts.
- . Male or female contacts.
- . Tin plated version available.
- . Shoulderless contact available, consult us.



See «8LT, 8ST & 8D Series - Reinforced Sealing» datasheet on www.souriau.com

Reliable People, Reliable Solutions



Your local contact



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