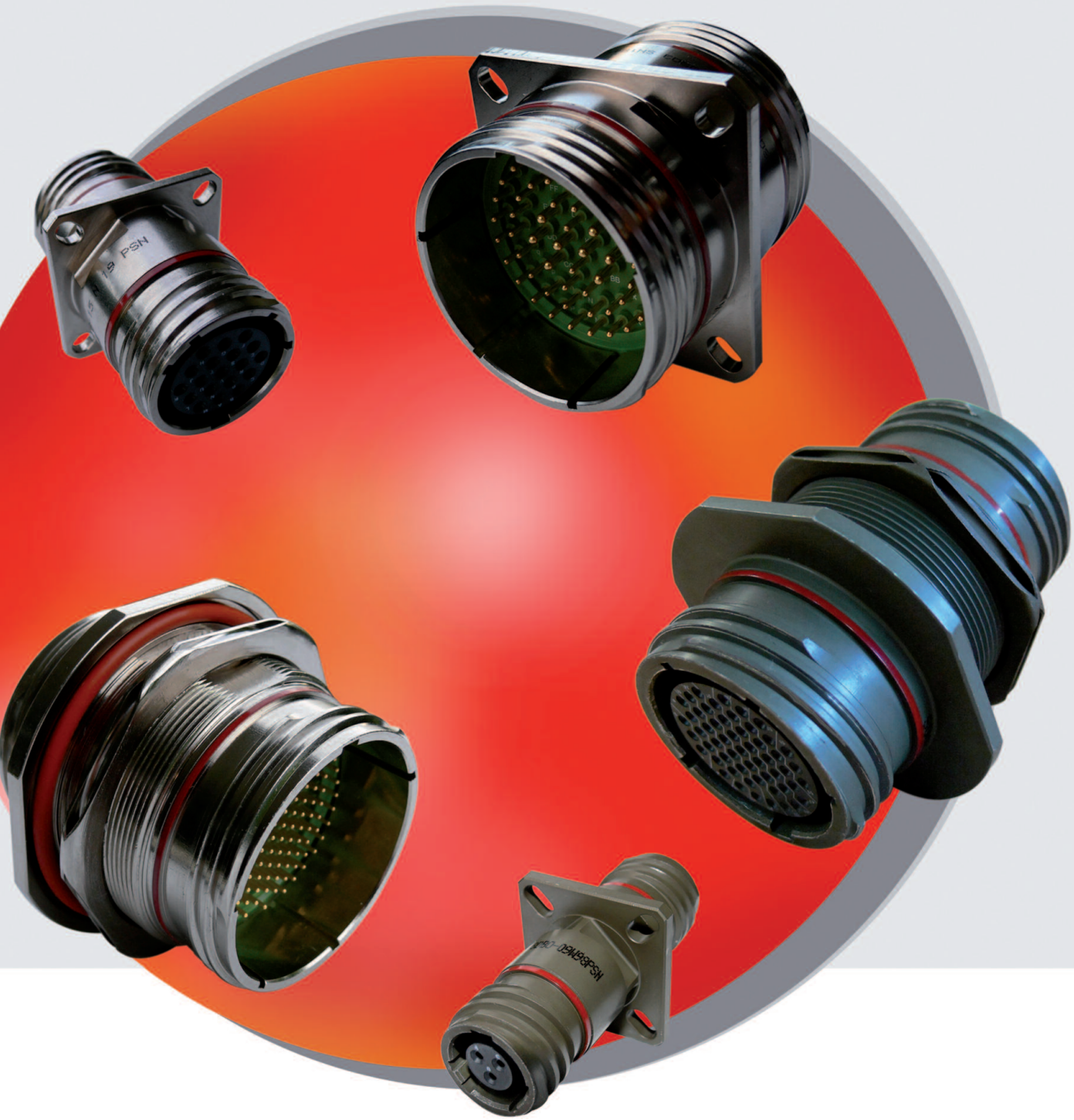

38999 series III

Bulkhead Feed-throughs

SOURIAU

Connection Technology

38999 Bulkhead Feed-throughs

SOURIAU

Connectors and interconnect systems for harsh environments

The company designs, manufactures and markets high performance interconnect solutions for severe environments from industrial broadline and universal ranges to complex system with integrated functions:
filtering, high speed data transmission, hermetic seal, separation mechanism, remote handling, underwater mating, …

Industrial

Aeronautical

Equipment & system

The dedicated end markets for SOURIAU's products are aeronautical, defense-space and industrial.

Railway
Geophysics
Manufacturing environment
Instrumentation
Automation & process

Civil & military aircraft
Helicopter
Weapon delivery system
Avionics

Military marine
Communications
Satellites
Launcher & missile

SOURIAU was established in 1917 and has been created by successive acquisitions of the industrial, aeronautical, defense and space activities of SOURIAU, JUPITER and BURNDY.

The Group's products are engineered and manufactured in the USA and Dominican Republic, Europe and Morocco, Japan and India, and sold by a worldwide sales and marketing organization, and in addition to SOURIAU's offices, a large network of licensed distributors and agents.

SOURIAU complies with most of national and international Quality Assurance Standards, production unit with ISO 14001.

Quality Certificate Management System

ISO 9001

Environment Certificate Management System

ISO 14001

Quality Certificate Management System

Aeronautic Industry : EN 9100

38999 Bulkhead Feed-throughs

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Range extension:
38999 series I & II Bulkhead Feed-throughs 23

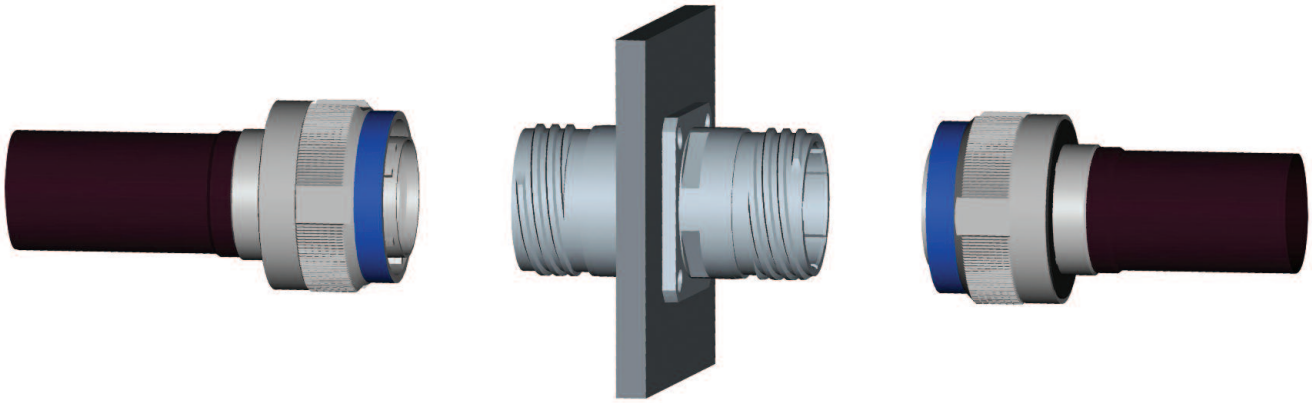
Standard reinforced sealing
38999 series III
Bulkhead Feed-throughs

38999 Bulkhead Feed-throughs

Product range presentation

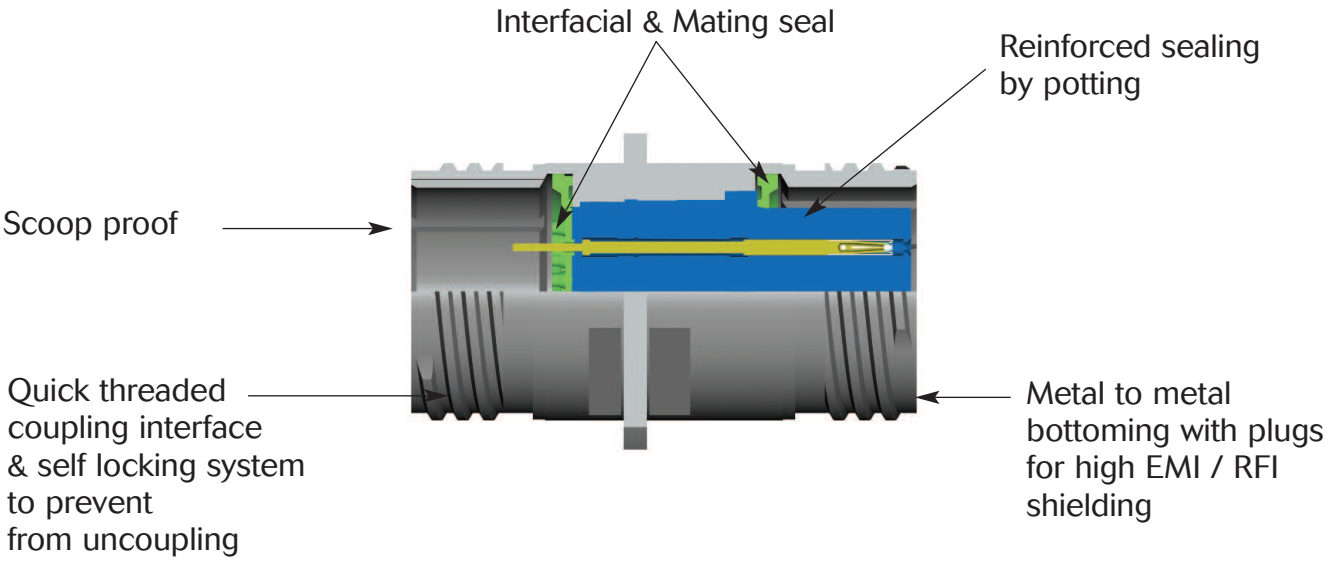
General characteristics

"Double Receptacle" mounted on panel allows cable plug connexion on both sides of the bulkhead:



- Male / female contacts Feed-through
- Standard 38999 sIII mating interface
- Standard 38999 sIII layouts: Contacts from #22 to #8
- Aluminium / Stainless steel / Titanium / Bronze shells
- Standard 38999 mounting interface (Square Flange, Jam Nut)

All 38999 sIII features integrated in Feed-through design



38999 Bulkhead Feed-throughs

Features & Benefits

Easy integration

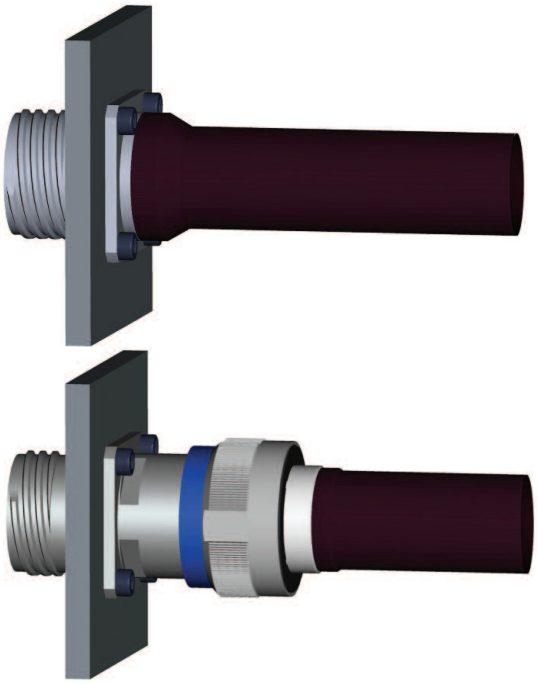
Standard Receptacle configuration:

- Receptacles and harness have to be mounted onboard the application
- Difficult operation when limited access area
- Not applicable to thick panel

Feed-through premounted on Panel:

- Simply mate the cabled plugs
- No fixing operations onboard
- No associated controls onboard (Torque measurement)
- Independent compartment architecture
- Accept panel thickness up to 12 mm

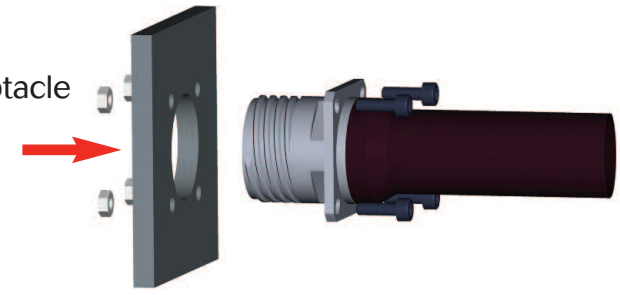
→ **LARGE TIME SAVING DURING DESIGN AND INTEGRATION**



Easy and reliable maintenance

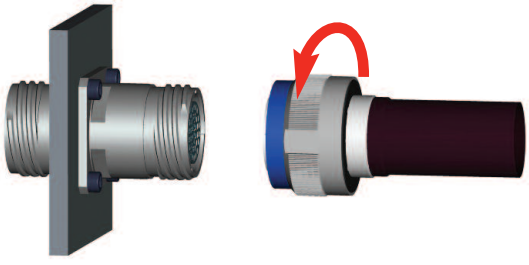
Receptacle and cable plug configuration:

- To dismount harnesses, need to remove receptacle from panel (4 screws or fixing nut)



Feed-through configuration:

- To dismount harnesses, only unmate cabled plug
- No mechanical operation on panel: Ensures structure mechanical integrity



→ **TIME SAVING & LOW RISK DURING MAINTENANCE**

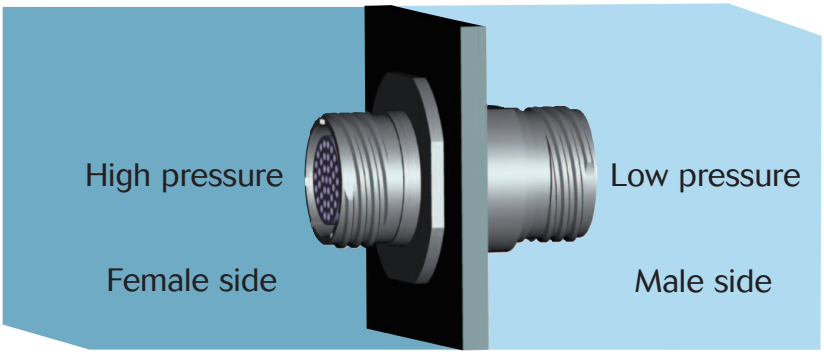
38999 Bulkhead Feed-throughs

Features & Benefits

Sealing barrier on panel

Souriau feed-throughs create a permanent sealed barrier on your panel:

- "Inside potting" ensures Feed-through sealing even when unmated
- Pressure difference up to 1 bar



Recommanded configuration for pressure withstanding

→ **SUITABLE FOR PRESSURIZED OR DEPRESSURIZED AREAS**

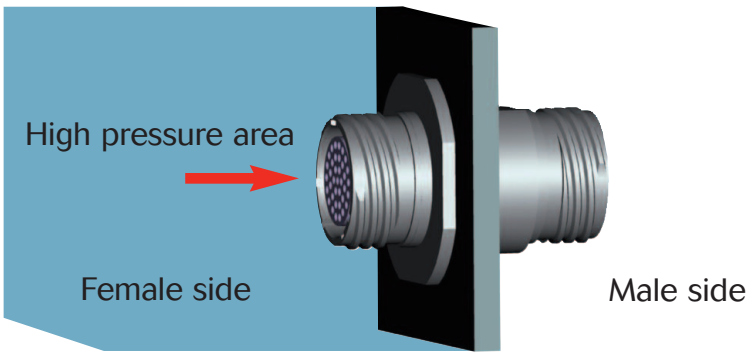
Reinforced sealing

Thanks to a special insulator design:

- Sealing increases with pressure

Sealing reaches hermeticity level of 10^{-6} atm x cm^3/s:

- 100 times higher than standard sealing at 10^{-4}



Recommanded configuration for pressure withstanding

→ **A SMART ALTERNATIVE TO STAINLESS STEEL GLASS FUSED FEED-THROUGHS: WEIGHT SAVING**

Standard reinforced sealing

38999 Bulkhead Feed-throughs

Description

Main performances

- 38999 Series electric performances
- Vibration: 60 G sine
  44 G random
- Temperature range: -65 to +200°C
- Standard reinforced sealing:
  $< 10^{-6}$ atm x cm^3 / s
- High corrosion resistance on demand

Technical features

Mechanical

- Shell: Aluminum alloy
  Stainless steel
  Titanium
  Marine bronze
- Shell plating: Nickel
  Olive drab cadmium
  Green zinc colbalt
  Black zinc nickel
- Insulator: Thermoplastic or thermoset
- Grommet and interfacial seal: Silicone elastomer
- Contacts: Copper alloy
- Contacts plating: Gold over nickel plated
- Endurance: 500 mating/unmating operations
- Shock: High impact as per MIL-S901,
  300 G, 3 ms
  according EN 2591-D2 method A
- Vibration:
  Sine: 10 to 2000 Hz, 3x12 hrs
  (60 G, 140 - 2000 Hz)
  with temperature cycling
  Random: 50 to 2000 Hz, 2x8 h
  1 G^2/Hz, 100 - 2000 Hz) at T° max.
  25 to 2000 Hz, 2x8 h
  (5 G^2/Hz, 100 - 300 Hz) at ambiant T°
  Test with accessories in acc with
  EN 2591-D3

Resistance to fluids

To MIL-DTL-38999 standard:

- Gazoline: JP5 (OTAN F44)
- Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
- Synthetic hydraulic fluid: Skydrol 500 B4

LD4 (SAE AS 1241)

- Mineral lubrificating: MIL-L-7870A (OTAN 0142)
- Synthetic lubrificating: MIL-L-23699 (OTAN 0156), MIL-L-7808
- Cleaning fluid: MIL-DTL-25769 diluted
- De-icing fluid: MIL-A-8243
- Extinguishing fluid: Chlorobromethane
- Cooling fluid: Coolanol

Electrical

- Test Voltage rating (Vrms)

Service	Sea level	At 21 000 m
M	1 300 V	800 V
N	1 000 V	600 V
I	1 800 V	1 000 V
II	2 300 V	1 000 V

- Insulation resistance: > 5000 MΩ (at 500 Vdc)
- EMI enhanced protection by shielding ring
- Contact resistance (as per SAE AS39029): Wire resistance included in measurement:

Size	
22D	14,6 mΩ
20	7,5 mΩ
16	3,8 mΩ
12	3,5 mΩ
8	3 mΩ

- Contact rating (as per SAE AS39029):

Size	
22D	5 A
20	7,5 A
16	13 A
12	23 A
8	45 A

38999 Bulkhead Feed-throughs

Technical features (continued)

Electrical & Environmental material and protection properties

	Electrical		Environmental	
	Shell continuity	Shielding	Temperature range	Salt spray
Nickel over Aluminium (F), Nickel over Stainless steel (S), Nickel over Titanium (TF)	1mΩ	65 dB at 10 GHz (for Aluminium (F): 85 dB at 1 GHz)	-65°C + 200°C	48 hours
Green zinc colbalt (Z), Black zinc nickel (L)	Consult us	Consult us	-65°C + 200°C	500 hours
Olive drab cadmium over Aluminium (W)	2,5mΩ	50 dB at 10 GHz	-65°C + 175°C	500 hours
Passivated Stainless steel (K), Titanium Without plating (TT)	10mΩ	45 dB at 10 GHz	-65°C + 200°C	500 hours
Marine Bronze (MB)	5mΩ	85 dB at 10 GHz	-65°C + 175°C	500

- Sealing: mated connectors meet altitude immersion requirements of MIL-DTL-38999
- Uncoupled connector: water proof
- Salt spray: MIL-STD 1344 method 1001
- Damp heat: MIL-DTL 38999 (10 cycles of 24 hours)

Weight comparison

Example for a 38999 plug shell size 15

Connector Part Number / Ordering information

Basic series	8DB	0	-	15	W	35	PS	N	...

Style
0: Square Flange
7: Jam Nut

Type*
-: Signal and power contacts only (#22D, #20, #16, #12, #10, #8)
For layouts including coax, triax & quadrax contacts, please consult us

Shell size
09 - 11 - 13 - 15 - 17 - 19 - 21 - 23 - 25

Plating and shell material
Aluminium shell: **W:** Olive drab cadmium **F:** Nickel **Z:** Green zinc colbalt **L:** Black zinc nickel
Stainless steel shell: **K:** Passivated (High corrosion resistance) **S*:** Nickel
Titanium shell: **TT:** Without plating **TF*:** Nickel
Marine Bronze shell: **MB**

Contact layouts
See pages 13, 14, 15

Contact type
PS: Male - female bulkhead
PP:** Male - male bulkhead

Key polarisation
N: Normal
A - B - C - D - E (see table page 17, Key Polarisation)

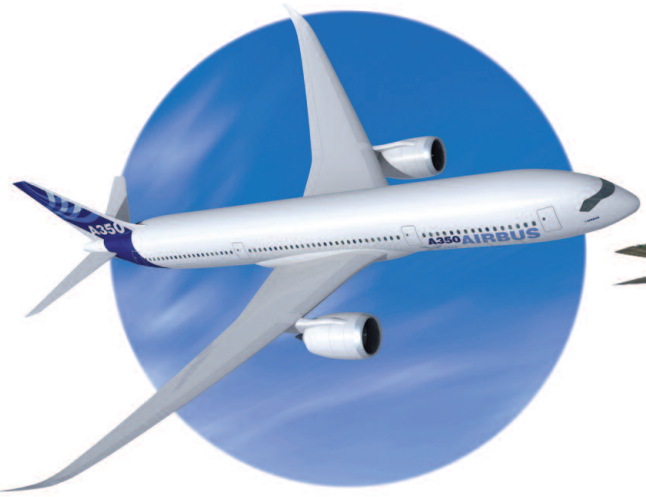
Specification

* For these platings, please consult us.
** For PP type, please consult us.

38999 Bulkhead Feed-throughs

Applications

Civil aircrafts



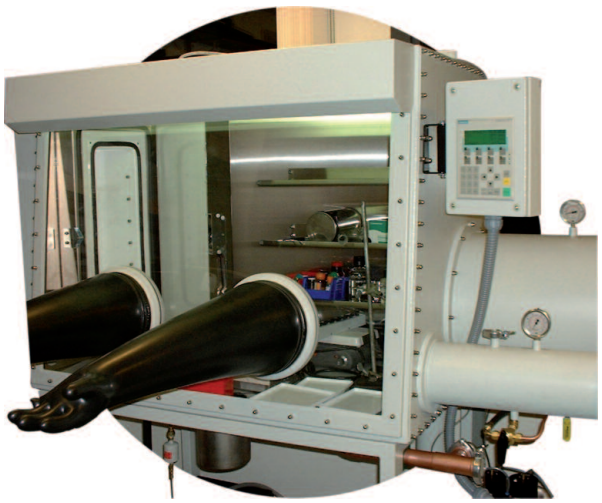
Thanks to Martin Alexander and Airbus for pictures authorization.

- In between aircraft compartments, with or without pressure difference
- Aircraft racks

Military vehicles

- Rugged applications

Laboratories, industrial glove boxes

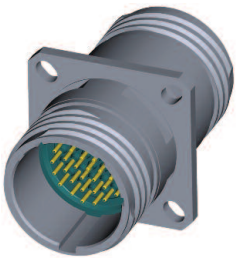


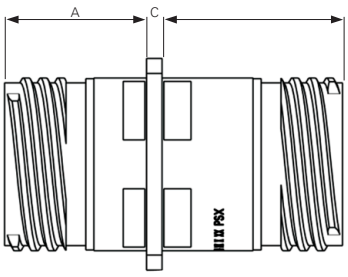
- High level of sealing for glove box applications

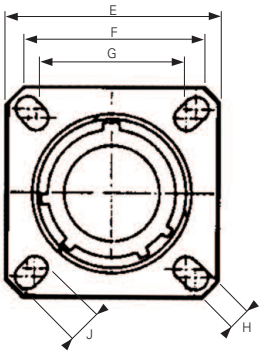
38999 Bulkhead Feed-throughs

Physical dimensions

Square Flange version

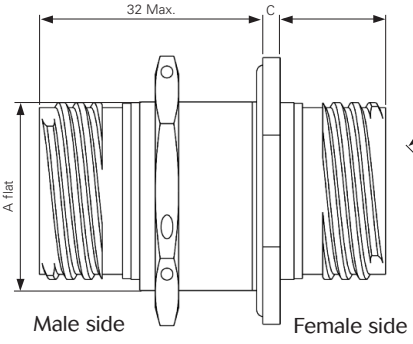


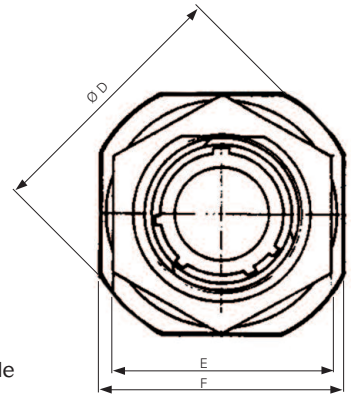




Shell size	A Max	C Max	E ± 0,30	F	G	H ± 0,20	J ± 0,20
9 (A)	20.90	2.50	23.80	18.26	15.09	3.25	5.49
11 (B)	20.90	2.50	26.20	20.62	18.26	3.25	4.93
13 (C)	20.90	2.50	28.60	23.01	20.62	3.25	4.93
15 (D)	20.90	2.50	31.00	24.61	23.01	3.25	4.93
17 (E)	20.90	2.50	33.30	26.97	24.61	3.25	4.93
19 (F)	20.90	2.50	36.50	26.36	26.97	3.25	4.93
21 (G)	20.10	3.20	39.70	31.75	29.36	3.25	4.93
23 (H)	20.10	3.20	42.90	34.93	31.75	3.91	6.15
25 (J)	20.10	3.20	46.00	38.10	34.93	3.91	6.15

Jam Nut version



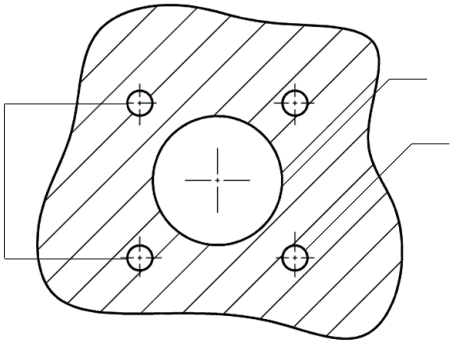


Shell size	A ± 0,15	C Max	D Max	E Max	F ± 0,40
9 (A)	16.53	2.80	30.50	23.00	27.00
11 (B)	19.07	2.80	35.20	26.00	31.80
13 (C)	23.82	2.80	38.40	31.00	34.90
15 (D)	26.97	2.80	41.60	34.00	38.10
17 (E)	30.15	2.80	44.80	37.00	41.30
19 (F)	33.32	3.50	49.50	41.00	46.00
21 (G)	36.50	3.50	52.70	46.00	49.20
23 (H)	39.67	3.50	55.90	47.00	52.40
25 (J)	42.85	3.50	59.00	52.00	55.60

38999 Bulkhead Feed-throughs

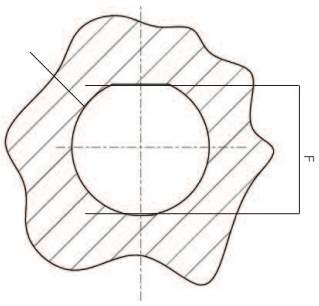
Mounting information

Panel cut-out



Square Flange version

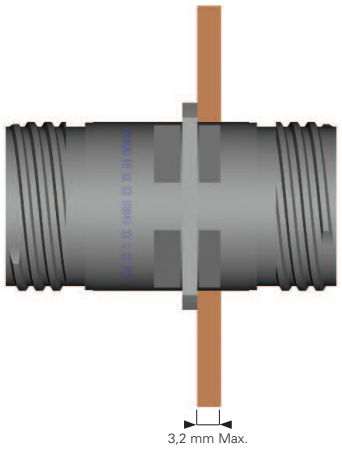
Shell size	A ± 0.25	G	B min.	C ± 0.13
09 (A)	18.26	15.09	16.66	3.25
11 (B)	20.62	18.26	20.22	3.25
13 (C)	23.01	20.62	23.42	3.25
15 (D)	24.61	23.01	26.59	3.25
17 (E)	26.97	24.61	30.96	3.25
19 (F)	29.36	26.97	32.94	3.25
21 (G)	31.75	29.36	36.12	3.25
23 (H)	34.93	31.75	39.29	3.91
25 (J)	38.10	34.94	42.47	3.91



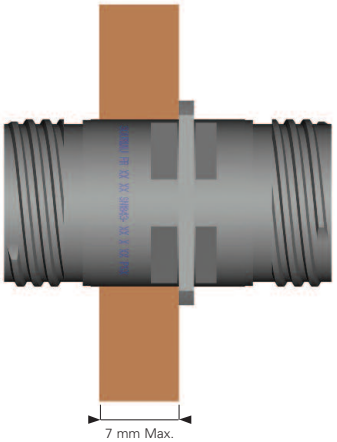
Jam Nut version

Shell size	E + 0.25	F
09 (A)	17.78	17.02
11 (B)	20.96	19.59
13 (C)	25.65	24.26
15 (D)	28.83	27.56
17 (E)	32.01	30.73
19 (F)	35.18	33.91
21 (G)	38.35	37.08
23 (H)	41.53	40.26
25 (J)	44.;70	43.43

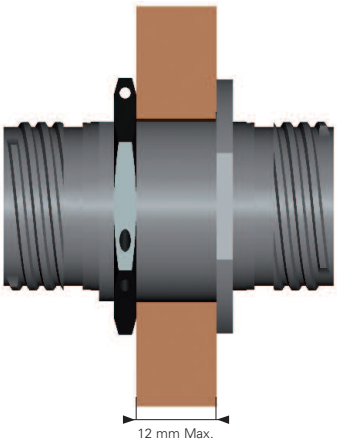
Maximum wall thickness



Square Flange : Rear mounting



Square Flange : Front mounting



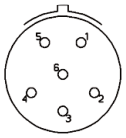
Jam Nut

38999 Bulkhead Feed-throughs

Available layouts

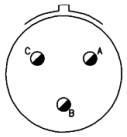
09 (A)

35

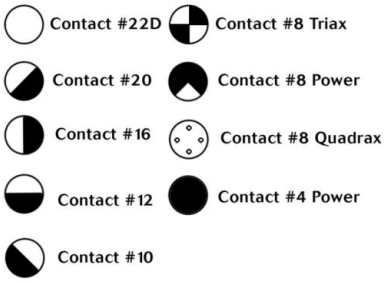


6#22D
Service M

98

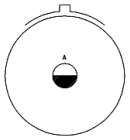


3#20
Service I



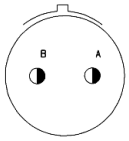
11 (B)

01



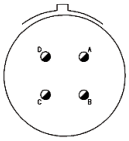
1#12
Service II

02



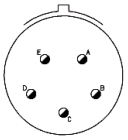
2#16
Service I

04



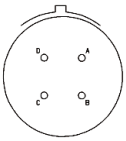
4#20
Service I

05



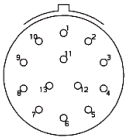
5#20
Service I

22



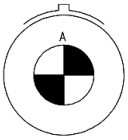
4#22D
Service M

35



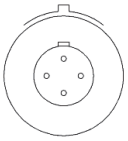
13#22D
Service M

80*



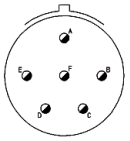
1#8 Triax
Service I

81*



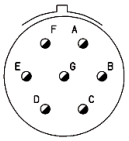
1#8 Quadrax
Service I

98



6#20
Service I

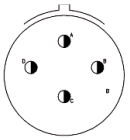
99



7#20
Service I

13 (C)

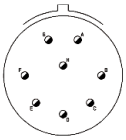
04



4#16

Service I

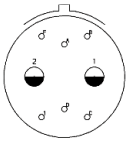
08



8#20

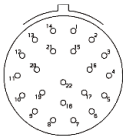
Service I

26



2#12
6#22D
Service M

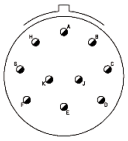
35



22#22D

Service M

98



10#20

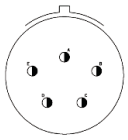
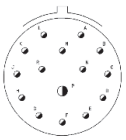
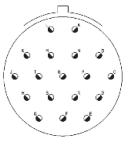
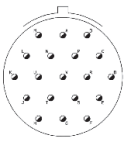
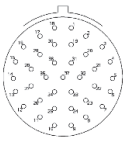
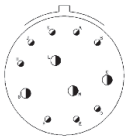
Service I

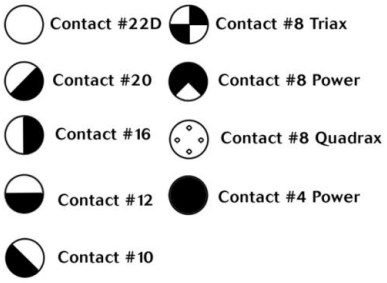
* For these layouts, please consult us.

38999 Bulkhead Feed-throughs

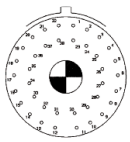
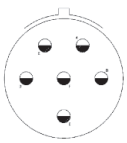
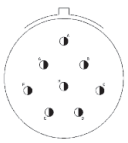
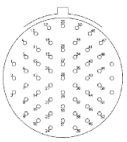
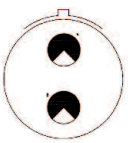
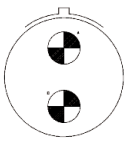
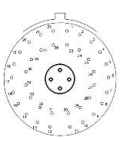
Available layouts

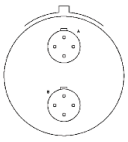
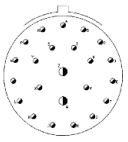
15 (D)

05	15	18	19	35	97
					
5#16 Service II	1#16 14#20 Service I	18#20 Service I	19#20 Service I	37#22D Service M	4#16 8#20 Service I

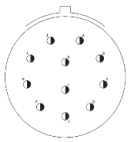
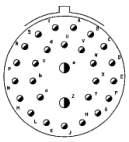
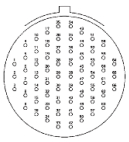


17 (E)

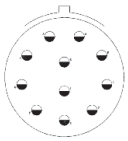
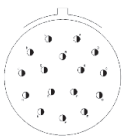
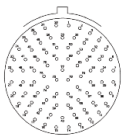
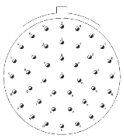
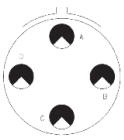
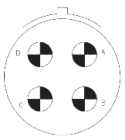
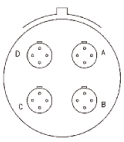
02*	06*	08	20	26	35	75	75*	81*
								
38#22D 1#8 Triax Service M	6#12 or 6#12 Coax Service I	8#16 Service II	4#12 16#22D Service M	26#20 Service II	55#22D Service M	2#8 Power Service M	2#8 Triax Service M	32#22D 1#8 Quadrax

82*	99
	
2 Quadrax	2#16 21#20 Service I

19 (F)

11	28	32	35
			
11#16 Service II	26#20 2#16 Service I	32#20 Service I	66#22D Service M

21 (G)

11	16	35	39	41	48	75*	84*
							
11#12 Service I	16#16 Service II	79#22D Service M	2#16 37#20 Service I	41#20 Service I	4#8 Power Service I	4#8 Triax Service M	4 Quadrax

* For these layouts, please consult us.

38999 Bulkhead Feed-throughs

Available layouts

23 (H)

21

21#16

Service II

35

100#22D

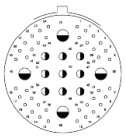
Service M

53

53#20

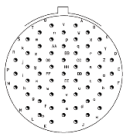
Service I

54



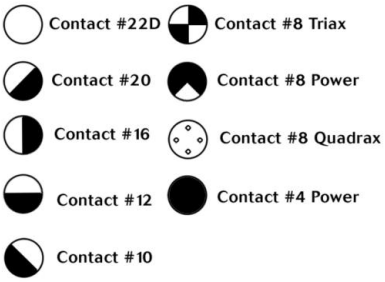
4#12
9#16
40#22D
Service M

55



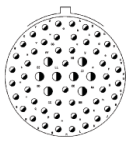
55#20

Service I



25 (J)

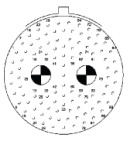
04



8#16
48#20

Service I

07*



2#8 Triax
97#22D

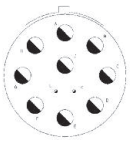
Service M

08*

8#8 Triax

Service M

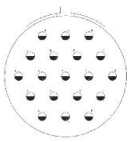
11*



2#20
9#10

Service N

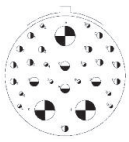
19



19#12

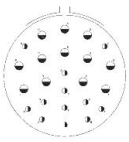
Service I

20*



10#20
4#12 Coax
13#16
3#8 Triax
Service N

24



12#16
12#12

Service II

29

29#16

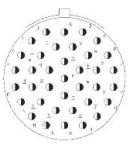
Service I

35

128#22D

Service M

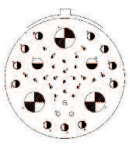
37



37#16

Service I

41*



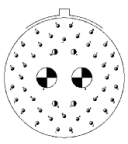
22#22D
3#20
11#16
2#12
3#8 Triax
Service M

43

23#20
20#16

Service I

46*



40#20
4#16
2#8 Triax

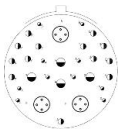
Service I

61

61#20

Service I

80*



10#20
13#16
4#12
3#8 Quadrax

Service N

81*

22#22D
3#20
11#16
2#12
3#8
Quadrax

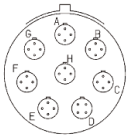
82*

97#22D
2#8 Quadrax

86*

40#20
4#16
2#8 Quadrax

88*



8 Quadrax

* For these layouts, please consult us.

38999 Bulkhead Feed-throughs

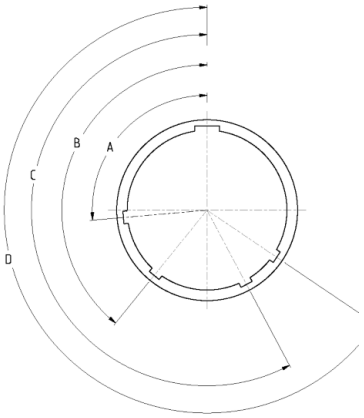
Contact layouts matrix

Shell Size	Layout	Service	Number of contacts	#22D	#20	#16	#12	#10	#8
09 (A)	09 - 35	M	6	6					
	09 - 98	I	3		3				
11 (B)	11 - 01	II	1				1		
	11 - 01	II	1						1 Coax
	11 - 02	I	2			2			
	11 - 04	I	4		4				
	11 - 05	I	5		5				
	11 - 12	I	1				1		
	11 - 22	M	4	4					
	11 - 35	M	13	13					
	11 - 80	I	1						1 Triax
	11 - 81	-	1						1 Quadrax
	11 - 98	I	6		6				
	11 - 99	I	7		7				
13 (C)	13 - 04	I	4			4			
	13 - 08	I	8		8				
	13 - 26	M	8	6			2		
	13 - 35	M	22	22					
	13 - 98	I	10		10				
15 (D)	15 - 05	II	5			5			
	15 - 15	I	15		14	1			
	15 - 18	I	18		18				
	15 - 19	I	19		19				
	15 - 35	M	37	37					
	15 - 97	I	12		8	4			
17 (E)	17 - 02	M	39	38					1 Triax
	17 - 06	I	6				6		
	17 - 08	II	8			8			
	17 - 20	M	20	16			4		
	17 - 26	I	26		26				
	17 - 35	M	55	55					
	17 - 75	M	2						2 or 2 Triax
	17 - 81	-	33	32					1 Quadrax
	17 - 82	-	2						2 Quadrax
	17 - 99	I	23		21	2			
19 (F)	19 - 11	II	11			11			
	19 - 28	I	28		26	2			
	19 - 32	I	32		32				
	19 - 35	M	66	66					
21 (G)	21 - 11	I	11				11		
	21 - 16	II	16			16			
	21 - 35	M	79	79					
	21 - 39	I	39		37	2			
	21 - 41	I	41		41				
	21 - 48	I	4						4 Power
	21 - 75	-	4						4 Triax
	21 - 84	-	4						4 Quadrax
23 (H)	23 - 21	II	21			21			
	23 - 35	M	100	100					
	23 - 53	I	53		53				
	23 - 54	M	53	40		9	4		
	23 - 55	I	55		55				
25 (E)	25 - 04	I	56		48	8			
	25 - 07	M	99	97					2 Triax
	25 - 08	-	8						8 or 8 Triax
	25 - 11	N	11		2			9	
	25 - 19	I	19				19		
	25 - 20	N	30		10	13	4 Coax		3 Triax
	25 - 24	II	24			12	12		
	25 - 29	I	29			29			
	25 - 35	M	128	128					
	25 - 37	I	37			37			
	25 - 41	N	41	22	3	11	2		3 Triax
	25 - 43	I	43		23	20			
	25 - 46	I	46		40	4			2 Coax
	25 - 61	I	61		61				
	25 - 80	N	30		10	13	4		3 Quadrax
	25 - 81	N	41	22	3	11	2		3 Quadrax
	25 - 82	M	99	97					2 Quadrax
	25 - 86	I	46		40	4			2 Quadrax
	25 - 88	-	8						8 Quadrax

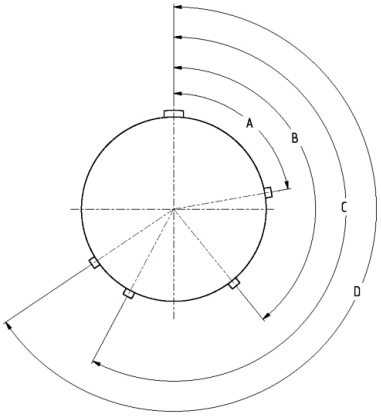
38999 Bulkhead Feed-throughs

Key polarisation

Male & female sides of feed-through



Standard 38999 corresponding plug
(Souriau part number 8D5*******)



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

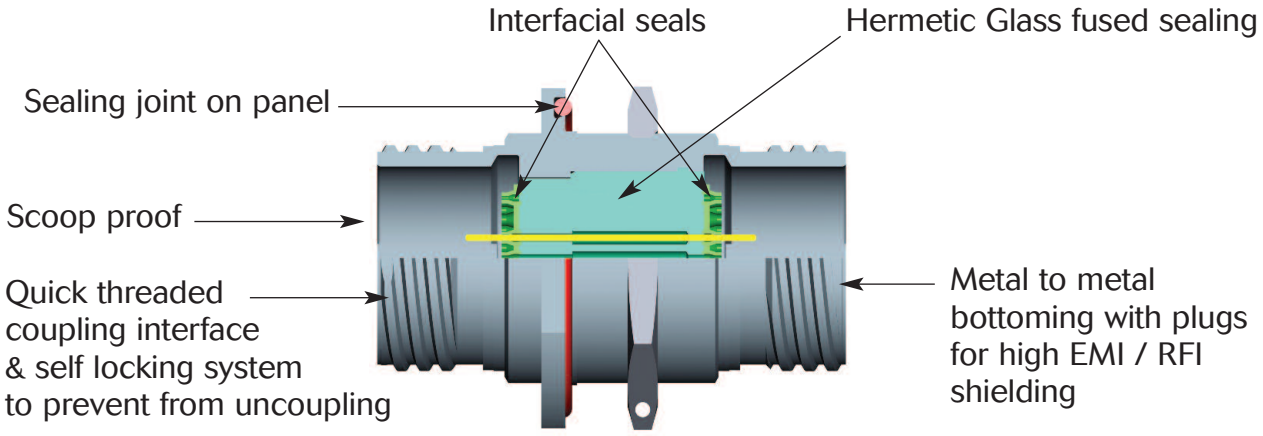
Hermetic Glass fused
38999 series III
Bulkhead Feed-throughs

Hermetic Glass fused
38999 Bulkhead Feed-throughs

Product range presentation

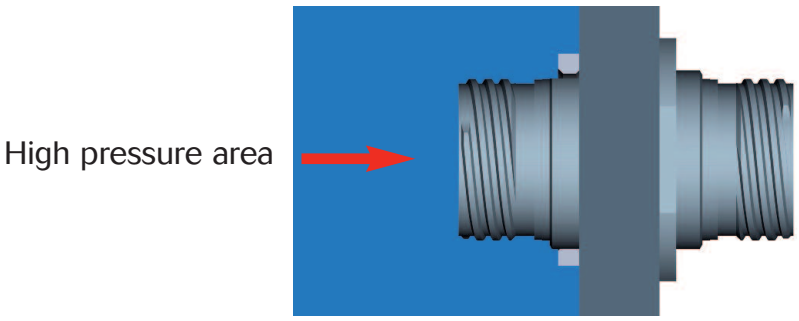
General characteristics

- Male / male contacts Feed-through
- Standard 38999 sIII mating interface
- Standard 38999 sIII layouts: Contacts from #22 to #8
- Stainless steel shell
- Standard 38999 Jam Nut mounting interface
- Same electric, vibration and environment performances as standard reinforced sealing version



Highest level hermetic glass fused sealing

- Sealing reaches hermeticity level of 10^{-8} atm x cm^3 / s (10^4 times higher than standard sealing !)
- O-ring design ensures panel sealing



SUITABLE FOR VACUUM CHAMBERS

Hermetic Glass fused
38999 Bulkhead Feed-throughs

Description

Main performances

- 38999 Series electric performances
- Vibration: 44 G random
- Temperature range: -65 to +200°C
- Hermetic Glass fused:
  $< 10^{-8}$ atm x cm^3 / s
- High corrosion resistance on demand

Technical features

Mechanical

- Shell: Stainless steel
- Protection:
  Passivated for high corrosion resistance
  or Nickel shell plating
- Insulator: Glass fused
- Interfacial seal: Silicone elastomer
- Contacts: Nickel iron alloy
- Contacts plating: Gold over nickel plated
- Endurance: 500 mating/unmating operations
- Shock: Half sine wave of 75 G, 3 ms
- Vibration:
  Random: 20 to 100 Hz at 6dB per octave
  100 to 2000 Hz constant at 1 G^2/Hz
  3 axes, 3.5 minutes per axis

Resistance to fluids

To MIL-DTL-38999 standard:

- Gazoline: JP5 (OTAN F44)
- Mineral hydraulic fluid: MIL-H-5606 (OTAN H515)
- Synthetic hydraulic fluid: Skydrol 500 B4

LD4 (SAE AS 1241)

- Mineral lubrificating: MIL-L-7870A (OTAN 0142)
- Synthetic lubrificating: MIL-L-23699 (OTAN 0156), MIL-L-7808
- Cleaning fluid: MIL-DTL-25769 diluted
- De-icing fluid: MIL-A-8243
- Extinguishing fluid: Chlorobromethane
- Cooling fluid: Coolanol

Electrical

- Test Voltage rating (Vrms)

Service	Sea level	At 33 000 m
M	1 300 V	250 V
I	1 800 V	Consult us
II	2 300 V	Consult us

- Insulation resistance (at 500 Vdc):
  > 5000 MΩ at 25°C
  > 1000 MΩ at 200°C
- EMI enhanced protection by shielding ring
- Contact resistance (as per SAE AS39029):
  Wire resistance included in measurement:

Size	
22D	60 mΩ
20	30 mΩ
16	15 mΩ
12	8 mΩ
8	3 mΩ

- Contact rating (as per SAE AS39029):

Size	
22D	3 A
20	5 A
16	10 A
12	17 A
8	33 A

Hermetic Glass fused
38999 Bulkhead Feed-throughs

Technical Features (continued)

Electrical & Environmental material and protection properties

	Electrical		Environmental	
	Shell continuity	Shielding	Temperature range	Salt spray
Nickel over Stainless steel (S)	1mΩ	65 dB at 10 GHz	-65°C + 200°C	48 hours
Passivated Stainless steel (K)	10mΩ	45 dB at 10 GHz	-65°C + 200°C	500

- Sealing: mated connectors meet altitude immersion requirements of MIL-DTL-38999
- Uncoupled connector: water proof
- Salt spray: MIL-STD 1344 method 1001
- Damp heat: MIL-DTL 38999 (10 cycles of 24 hours)

Connector Part Number / Ordering Information

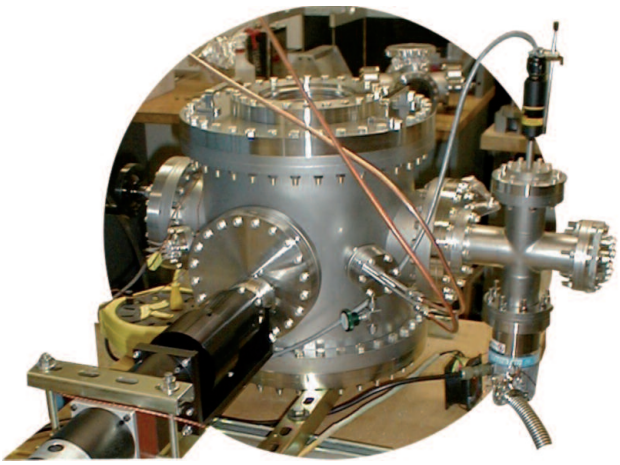
Basic series	**8DB**	**7**	**H**	**15**	**K**	**35**	**PP**	**N**	**...**
Style	**7:** Jam Nut								
Type	Hermectic: Signal and power contacts (#22, #20, #16, #12, #10, #8) For layouts including coax, triax & quadrax contacts, please consult us								
Shell size	15 - 19 - 25								
Plating and shell material **Stainless Steel shell:** **K:** Passivated (High corrosion resistance) **S:** Nickel									
Contact layouts	Please consult us for layout availability								
Contact type	**PP:** Male - male bulkhead								
Key polarisation	**N:** normal **A - B - C - D - E** (see table page 17)								
Specification									

Applications

Critical glove boxes

• High level of sealing
for nuclear glove box applications

Laboratories, vacuum chambers

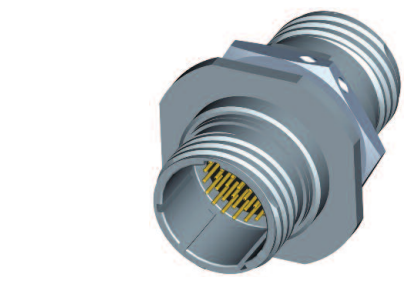


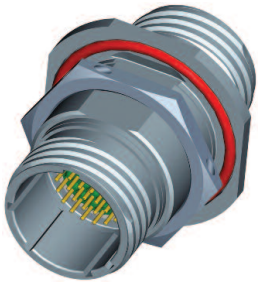
• High level of sealing for vacuum applications

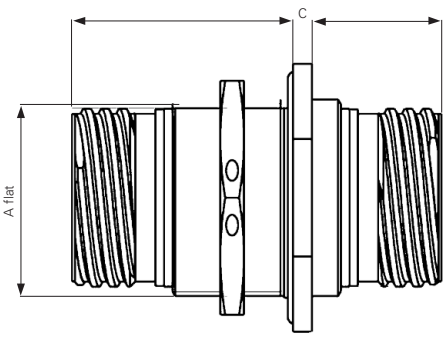
Hermetic Glass fused
38999 Bulkhead Feed-throughs

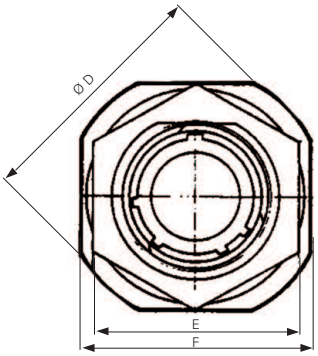
Physical dimensions

Standard 38999 sIII dimensions





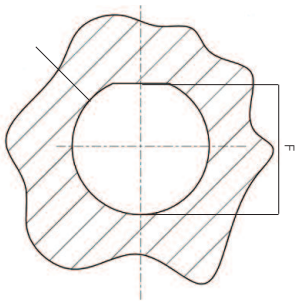




Shell size	A ± 0,15	C Max	D Max	E Max	F ± 0,40
9 (A)	16.53	2.80	30.50	23.00	27.00
11 (B)	19.07	2.80	35.20	26.00	31.80
13 (C)	23.82	2.80	38.40	31.00	34.90
15 (D)	26.97	2.80	41.60	34.00	38.10
17 (E)	30.15	2.80	44.80	37.00	41.30
19 (F)	33.32	3.50	49.50	41.00	46.00
21 (G)	36.50	3.50	52.70	46.00	49.20
23 (H)	39.67	3.50	55.90	47.00	52.40
25 (J)	42.85	3.50	59.00	52.00	55.60

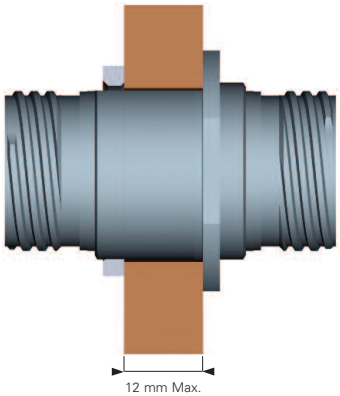
Mouting information

Panel cut-out



Shell Size	E + 0.25	F
09 (A)	17.78	17.02
11 (B)	20.96	19.59
13 (C)	25.65	24.26
15 (D)	28.83	27.56
17 (E)	32.01	30.73
19 (F)	35.18	33.91
21 (G)	38.35	37.08
23 (H)	41.53	40.26
25 (J)	44.70	43.43

Maximum wall thickness

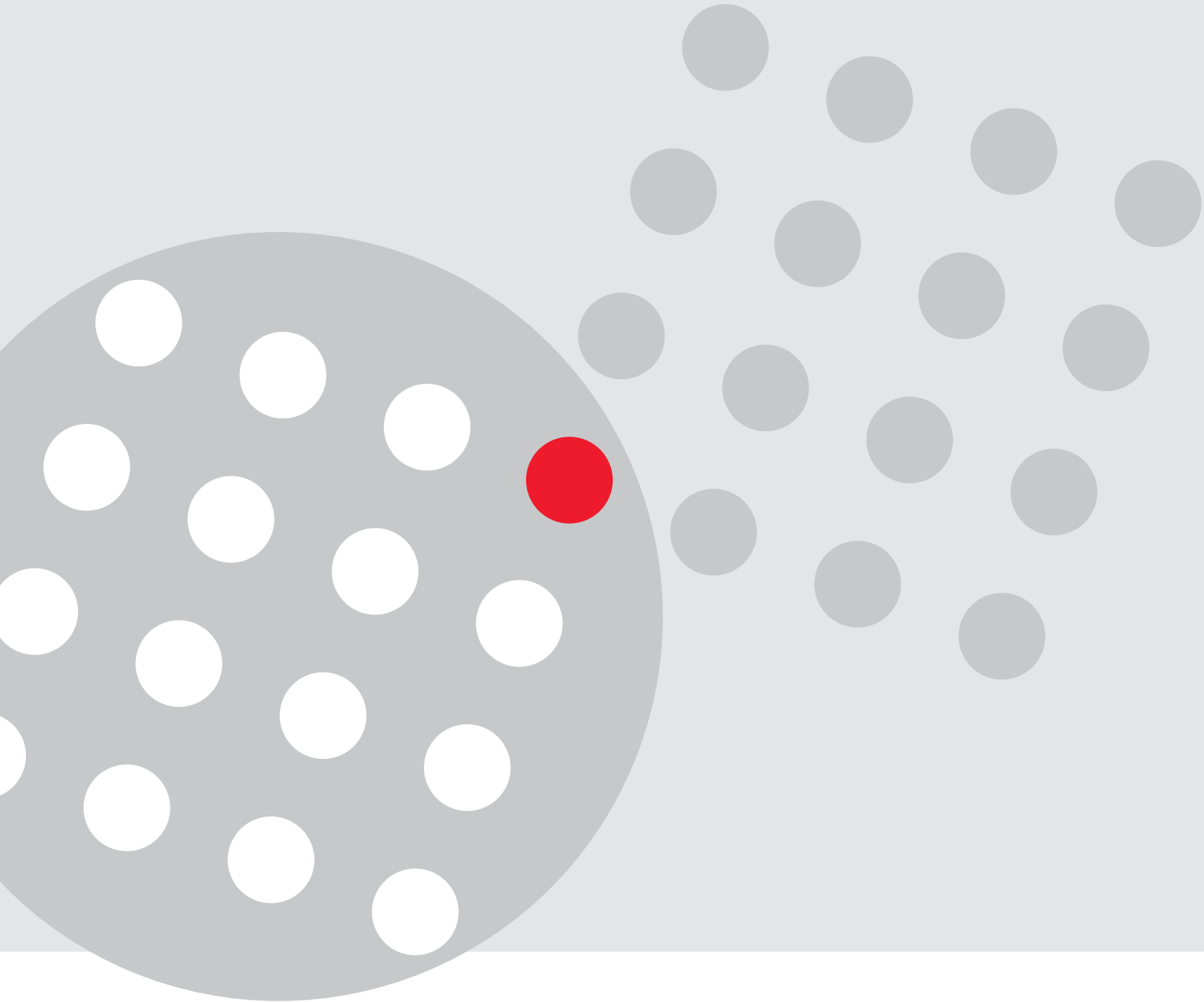


Available layouts
Key polarisation
refer to pages 13-17

Range extension: 38999 series I & II Bulkhead Feed-throughs

Please consult us

Notes



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