

SuperNine® Glass seal hermetic

MIL-DTL-38999 Series III Type

233-103-H9 Bulkhead Feed-thru Sav-Con



MIL-DTL-38999 Series III Type SuperNine hermetic bulkhead feed-thru Sav-Con withstand the pressure differentials between internal and external environments without compromising their integrity. Hermetic sealing of 1×10^{-7} atm cc/s ensures protection against moisture and contaminants, making them ideal for aerospace and defense applications to guarantee reliability in extreme environments, ensuring optimal performance in critical applications. Rated for temperatures from -65°C to $+200^{\circ}\text{C}$, they meet stringent military specifications, providing exceptional resistance to shock (up to 100g), vibration (up to 20g), and corrosion (salt spray per ASTM B117).

PERFORMANCE SPECIFICATIONS

- Hermeticity: $<1 \times 10^{-7}$ sccHe/sec @ one ATM differential. Not for use in liquid atmosphere.
- I.R.: 5 gigaohms min @ 500 VDC
- See D.W.V. Voltage Rating Table

MATERIAL/FINISH:

- Shell, jam nut: see Part No. Details table
- Contacts, pin: nickel-iron alloy/gold plate.
- Contacts, socket: copper alloy/gold plate.
- Insulator, hermetic: vitreous glass
- Insulator, socket: hi-grade rigid dielectric
- O-rings and seals: fluorosilicone blend
- Seals: fluorosilicone blend elastomer

NOTES

1. For PP or SS style, only symmetrical layouts may be selected. Power applied to contact on one side will result in power to the opposite contact, regardless of marking.

Part Number Development							
Part Number	233-103-H9	Z1	11	-35	P	N	01
Basic Part Number	233-103-H9 = Bulkhead Feed-Thru Sav-Con						
Finish	Z1 = Passivate ZL = Nickel Plate						
Shell Size	9, 11, 13, 15, 17, 19, 21, 23, 25						
Insert Arrangement	Per MIL-DTL-38999/MIL-STD-1560. See page A-8 for Insert Arrangements						
Contact Termination	P = Pin on plug end			S = Socket on plug end			
Polarization	A, B, C, D, E, N for Normal, U for Universal see notes						
Panel Accommodation	01, 02, 03						

Hermetic Leak Rate Modification Codes	
Designator	Required Leak Rate
-585A	1×10^{-10} atm ccHe/s per sec
-585B	1×10^{-9} atm ccHe/s per sec
-585C	1×10^{-8} atm ccHe/s per sec

Wire Accommodation	
Contact Size	Wire Gauge
22D	#22 - #28
20	#20 - #24
16	#16 - #20
12	#12 - #14

Panel Accommodation				
Sym	G		H	J
	Min	Max		
01	.0625 (1.59)	.125 (3.18)	.890 (22.61)	2.000 (50.80)
02	.0625 (1.59)	.250 (6.35)	1.150 (29.21)	2.225 (56.52)
03	.0625 (1.59)	.500 (12.70)	1.400 (35.56)	2.450 (62.23)

DWV Voltage Levels	
Service Rating	Voltage AC RMS 60Hz
M	1300 VAC
I	1800 VAC
II	2300 VAC
N	1000 VAC

Table I: Insert Arrangements

Shell Size	Layout	No. of Pins			
		22D	20	16	12
9	-35	6			
9	-98	3			
11	-5	5			
11	-98	6			
11	-99	7			
11	-35	13			
11	-2		2		
13	-4		4		
13	-8	8			
13	-98	10			
13	-35	22			
15	-5		5		
15	-15	14	1		
15	-18	18			
15	-19	19			
15	-35	37			
15	-97	8	4		
17	-6			6	

Table I: Insert Arrangements

Shell Size	Layout	No. of Pins			
		22D	20	16	12
17	-8		8		
17	-26		26		
17	-35	55			
17	-99	21	2		
19	-11		11		
19	-28	26	2		
19	-30	29	1		
19	-32	32			
19	-35	66			
19	-45	67			
21	-11			11	
21	-16		16		
21	-24	24			
21	-25	25			
21	-27	27			
21	-29	19	4	4	
21	-35	79			
21	-39	37	2		

Table I: Insert Arrangements

Shell Size	Layout	No. of Pins			
		22D	20	16	12
21	-41		41		
23	-21			21	
23	-32		32		
23	-34		34		
23	-35	100			
23	-36		36		
23	-53		53		
23	-55		55		
23	-97			16	
23	-99			11	
25	-4		48	8	
25	-19				19
25	-24			12	12
25	-29			29	
25	-35	128			
25	-37			37	
25	-43		23	20	
25	-61		61		

SUPER NINE GLASS-TO-METAL SEAL HERMETIC CONNECTORS

MIL-DTL-38999 Series III Type

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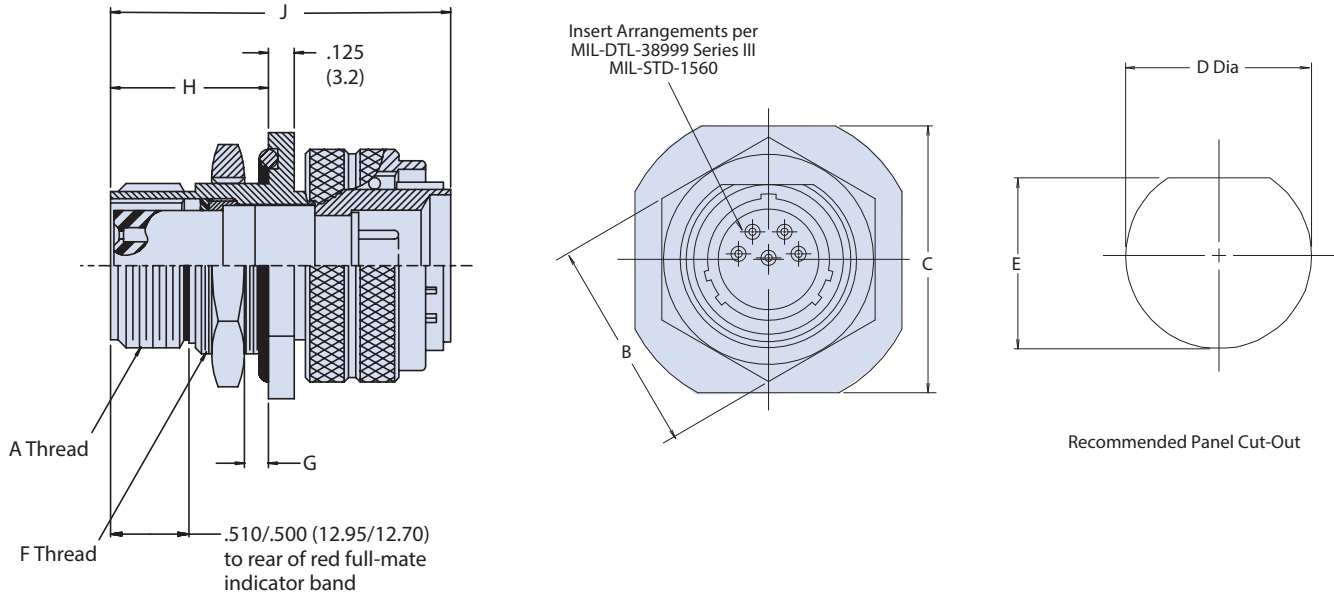


TABLE I: CONNECTOR DIMENSIONS						
SHELL SIZE	A THREAD 0.1 P-0.3L-TS-2	B DIM MAX	C DIM MAX	D DIA	E DIA	F THREAD x1-6g-0.100R
9	.6250	.945 (24.0)	1.090 (27.7)	.703 (17.86) / .693 (17.60)	.661 (16.79) / .655 (16.64)	M17
11	.7500	1.063 (27.0)	1.280 (32.5)	.835 (21.21) / .825 (20.96)	.771 (19.58) / .761(19.33)	M20
13	.8750	1.260 (32.0)	1.400 (35.6)	1.020 (25.91) / 1.010 (25.65)	.955 (24.26) / .945 (24.0)	M25
15	1.0000	1.417 (36.0)	1.530 (38.9)	1.145 (29.08) / 1.135 (28.83)	1.085 (27.56) / 1.075 (27.30)	M28
17	1.1875	1.457 (37.0)	1.660 (42.2)	1.270 (32.26) / 1.260 (32.00)	1.210 (30.73) / 1.200 (30.48)	M32
19	1.2500	1.614 (41.0)	1.840 (46.7)	1.395 (35.43) / 1.385 (35.18)	1.335 (33.91) / 1.325 (33.65)	M35
21	1.3750	1.811 (46.0)	1.970 (50.5)	1.520 (38.61) / 1.510 (38.35)	1.460 (37.08) / 1.450 (36.83)	M38
23	1.5000	1.968 (50.0)	2.090 (53.1)	1.645 (41.78) / 1.635 (41.53)	1.585 (40.26) / 1.575 (40.00)	M41
25	1.6250	2.017 (51.2)	2.210 (56.1)	1.770 (44.96) / 1.760 (44.70)	1.710 (43.43) / 1.700 (43.18)	M44