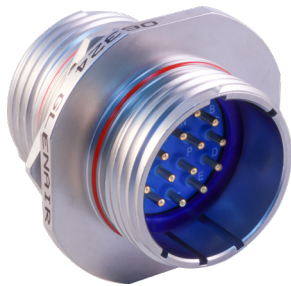


## MIL-DTL-38999 Series III Type 233-103 Bulkhead feed-thrus

HERMETIC CONNECTORS

Part Number Development	
Sample Part Number	233-103 -H2 Z1 17-35 S N -02
Series / Basic Part No.	Series 23 SuperNine Hermetic Bulkhead Feed-thru
Connector Style	H2 = Box Mount H7 = Jam-Nut Mount DH7 = Dual O-ring Jam-Nut Mount H8 = Weld Mount
Finish*	Z1 = CRES, Passivated ZL = CRES, Nickel Finish
Shell Size-Insert Arrangement*	Per MIL-DTL-38999/MIL-STD-1560
Contact Type	P = Pin on panel side S = Socket on panel side PP = Pin-Pin (See note 1) SS = Socket-Socket (See note 1)
Polarization*	A, B, C, D, E, N = Normal
Panel Thickness	01, 02, 03; See panel thickness table per connector style. Consult factory for additional options.

**\*Refer to Section A for complete details, consult factory for additional options**  
Modification codes may be added directly to the end of any valid part number



Hermetic Leak Rate Mod Codes	
Designator	Required Leak Rate
-585A	1 x 10 <sup>-10</sup> cc Helium per second
-585B	1 x 10 <sup>-9</sup> cc Helium per second
-585C	1 x 10 <sup>-8</sup> cc Helium per second

### NOTES

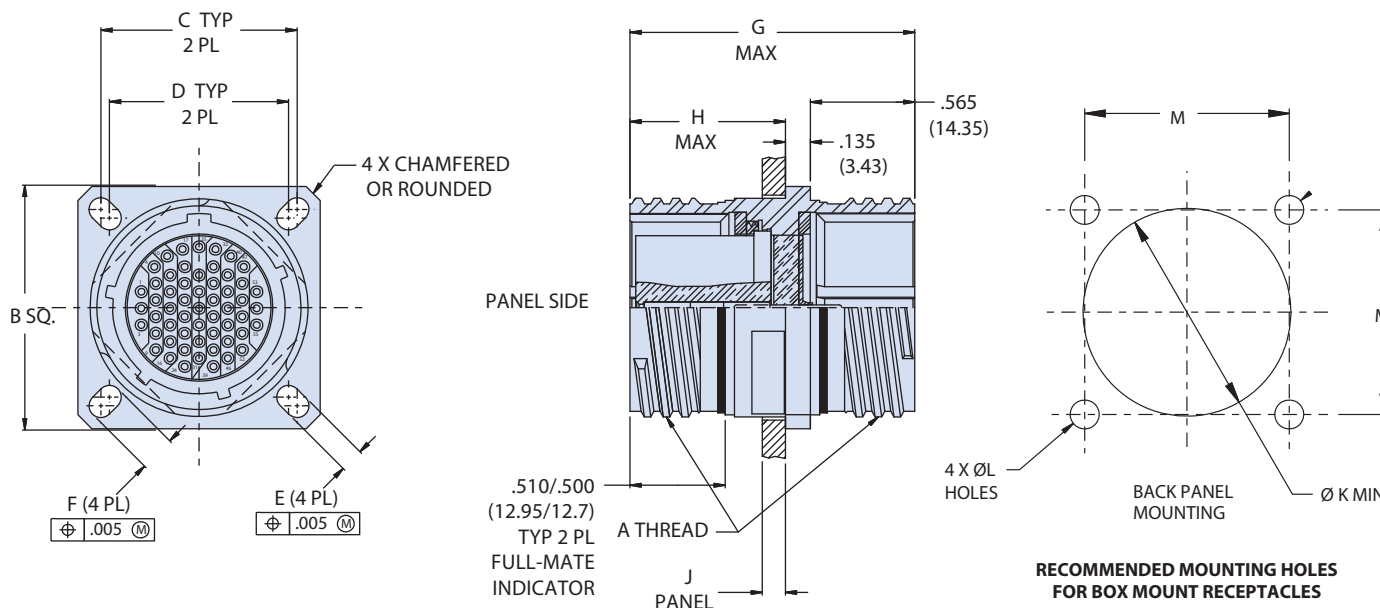
- For PP or SS style, only symmetrical layouts may be selected. Power to a given contact on one end will result in power to contact directly opposite, regardless of identification letter.
- Glenair 233-103 will mate with any QPL manufacturer's 38999 Series III plug of same shell size, polarization and opposite contact gender.
- Hermeticity: less than 1 x 10<sup>-7</sup> ccHe/sec at 1 atmosphere differential.
- For weld mount (H8) connector style, "SS" style, -01 dimensions "E" and "F" increase by .150"
- Electrical safety limits must be established by user. Peak voltage, switching surge, transient, etc should be used to determine safe application

### Material / Finish

- Shell and jam-nut (H7): CRES/passivate or CRES/nickel plate
- Contacts pin: nickel/iron alloy/gold plate
- Contacts sockets: copper alloy/gold plate insulator
- Insulator hermetic: vitreous glass/N.A
- Insulator socket: rigid dielectric/N.A
- Seals: fluorosilicone blend/N.A.

## MIL-DTL-38999 Series III Type 233-103 Bulkhead feed-thrus

### 233-103-H2 BOX MOUNT RECEPTACLE



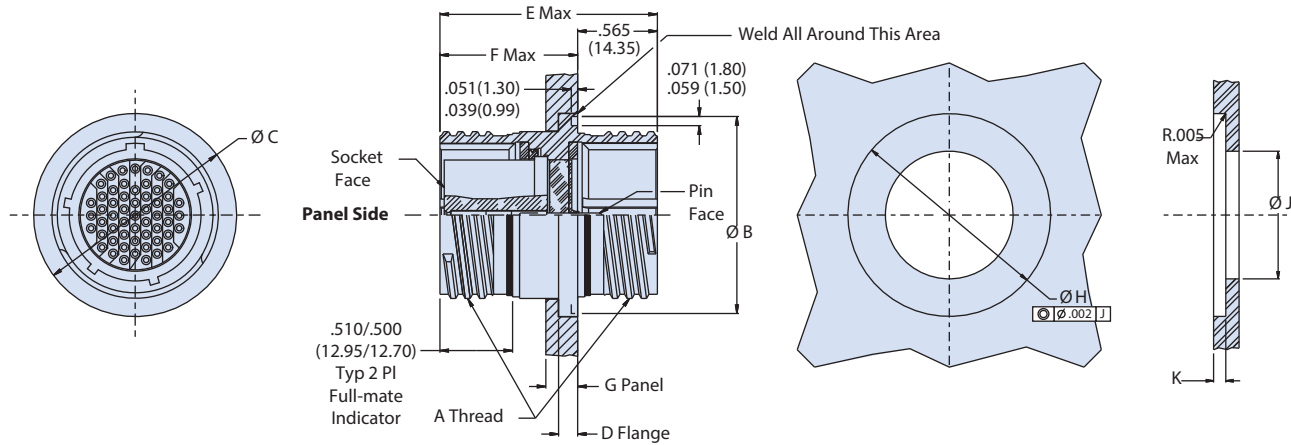
Dimensions						
SHELL SIZE	A THREAD	B SQ.	C BSC.	D BSC.	E	F
9	.6250	0.949 (24.10)	0.719	0.594	0.136 (3.45)	0.224 (5.69)
	.1 P-.3L-TS-2A	0.925 (23.50)	(18.26)	(15.09)	0.120 (3.05)	0.208 (5.28)
11	.7500	1.043 (26.49)	0.812	0.719	0.136 (3.45)	0.202 (5.13)
	.1 P-.3L-TS-2A	1.019 (25.88)	(20.62)	(18.26)	0.120 (3.05)	0.186 (4.72)
13	.8750	1.138 (28.91)	0.906	0.812	0.136 (3.45)	0.202 (5.13)
	.1 P-.3L-TS-2A	1.114 (28.30)	(23.01)	(20.62)	0.120 (3.05)	0.186 (4.72)
15	1.0000	1.232 (31.29)	0.969	0.906	0.136 (3.45)	0.181 (4.60)
	.1 P-.3L-TS-2A	1.208 (30.68)	(24.61)	(23.01)	0.120 (3.05)	0.165 (4.19)
17	1.1875	1.323 (33.60)	1.062	0.969	0.136 (3.45)	0.202 (5.13)
	.1 P-.3L-TS-2A	1.299 (32.99)	(26.97)	(24.61)	0.120 (3.05)	0.186 (4.72)
19	1.2500	1.449 (36.80)	1.156	1.062	0.136 (3.45)	0.202 (5.13)
	.1 P-.3L-TS-2A	1.425 (36.20)	(29.36)	(26.97)	0.120 (3.05)	0.186 (4.72)
21	1.3750	1.575 (40.00)	1.250	1.156	0.136 (3.45)	0.202 (5.13)
	.1 P-.3L-TS-2A	1.551 (39.40)	(31.75)	(29.36)	0.120 (3.05)	0.186 (4.72)
23	1.5000	1.701 (43.21)	1.375	1.25	0.162 (4.11)	0.250 (6.35)
	.1 P-.3L-TS-2A	1.677 (42.60)	(34.92)	(31.75)	0.146 (3.71)	0.234 (5.94)
25	1.6250	1.823 (46.30)	1.500	1.375	0.162 (4.11)	0.250 (6.35)
	.1 P-.3L-TS-2A	1.799 (45.69)	(38.10)	(34.92)	0.146 (3.71)	0.234 (5.94)

Recommended Mounting Holes			
SHELL SIZE	Ø K MIN	Ø L HOLES	M
9	0.656 (16.66)	0.133 (3.38)	0.724 (18.39)
		0.123 (3.12)	0.714 (18.14)
11	0.781 (19.84)	0.133 (3.38)	0.817 (20.75)
		0.123 (3.12)	0.807 (20.50)
13	0.921 (23.39)	0.133 (3.38)	0.911 (23.14)
		0.123 (3.12)	0.901 (22.89)
15	1.047 (26.59)	0.133 (3.38)	0.973 (24.71)
		0.123 (3.12)	0.963 (24.46)
17	1.218 (30.94)	0.133 (3.38)	1.067 (27.10)
		0.123 (3.12)	1.057 (26.85)
19	1.296 (32.92)	0.133 (3.38)	1.161 (29.49)
		0.123 (3.12)	1.151 (29.24)
21	1.421 (36.09)	0.133 (3.38)	1.255 (31.88)
		0.123 (3.12)	1.245 (31.62)
23	1.546 (39.27)	0.159 (4.04)	1.380 (35.05)
		0.149 (3.78)	1.370 (34.80)
25	1.672 (42.47)	0.159 (4.04)	1.505 (38.23)
		0.149 (3.78)	1.495 (37.97)

Box Mount (H2) Panel Thickness			
DASH NO.	G DIM, OAL MAX	H DIM, MAX	J DIM, PANEL
-01	1.600 (40.64)	.843 (21.41)	.125 (3.18) .062 (1.57)
-02	1.730 (43.94)	1.040 (26.42)	.250 (6.35) .062 (1.57)
-03	2.000 (50.80)	1.290 (32.77)	.500 (12.70) .062 (1.57)

**MIL-DTL-38999 Series III Type  
233-103 Bulkhead feed-thrus**

**233-103-H8 WELD MOUNT RECEPTACLE**



Dimensions					
Shell Size Code	Shell Size	A Thread	Ø B	Ø C	D
A	9	.6250-1P-.3L-TS-2A	.941 (23.90) .929 (23.60)	.984 (24.99) .972 (24.69)	.134 (3.40) .118 (3.00)
B	11	.7500-1P-.3L-TS-2A	1.063 (27.00) 1.051 (26.70)	1.106 (28.09) 1.094 (27.79)	.134 (3.40) .118 (3.00)
C	13	.8750-1P-.3L-TS-2A	1.189 (30.20) 1.177 (29.90)	1.232 (31.29) 1.220 (30.99)	.134 (3.40) .118 (3.00)
D	15	1.0000-1P-.3L-TS-2A	1.315 (33.40) 1.303 (33.10)	1.358 (34.49) 1.346 (34.19)	.134 (3.40) .118 (3.00)
E	17	1.1875-1P-.3L-TS-2A	1.402 (35.61) 1.390 (35.31)	1.445 (36.70) 1.433 (36.40)	.134 (3.40) .118 (3.00)
F	19	1.2500-1P-.3L-TS-2A	1.547 (39.29) 1.535 (38.99)	1.591 (40.41) 1.579 (40.11)	.134 (3.40) .118 (3.00)
G	21	1.3750-1P-.3L-TS-2A	1.689 (42.90) 1.677 (42.60)	1.732 (43.99) 1.720 (43.69)	.134 (3.40) .118 (3.00)
H	23	1.5000-1P-.3L-TS-2A	1.854 (47.09) 1.842 (46.79)	1.898 (48.21) 1.886 (47.90)	.165 (4.19) .149 (3.78)
J	25	1.6250-1P-.3L-TS-2A	1.941 (49.30) 1.929 (49.00)	1.984 (50.39) 1.972 (50.09)	.165 (4.19) .149 (3.78)

Recommended Panel Cutout			
Shell Size	Ø H	Ø J ±.005 (0.13)	Depth K ±.005 (0.13)
9	.990/.985 (25.15/ 25.02)	.635 (16.13)	.126 (3.20)
11	1.112/1.107 (28.24/ 28.12)	.760 (19.30)	.126 (3.20)
13	1.238/1.233 (31.45/ 31.32)	.885 (22.48)	.126 (3.20)
15	1.364/1.359 (34.65/34.52)	1.010 (25.65)	.126 (3.20)
17	1.451/1.446 (36.86/ 36.73)	1.195 (3.35)	.126 (3.20)
19	1.597/1.592 (40.56/ 40.44)	1.260 (32.00)	.126 (3.20)
21	1.738/1.733 (44.15/ 44.02)	1.385 (35.18)	.126 (3.20)
23	1.894/1.899 (48.11/ 48.23)	1.510 (38.35)	.157 (3.99)
25	1.990/1.985 (50.55/ 50.42)	1.635 (41.53)	.157 (3.99)

Weld Mount (H8) Panel Thickness			
Dash no	E Dim, OAL Max	F Dim, Max	G Dim, Panel
-01	1.630 (41.40)	1.060 (26.92)	.250 (6.35) .175 (4.44)
-02	1.750 (44.45)	1.180 (29.97)	4.25 (107.95) .175 (4.44)
-03	1.920 (48.77)	1.350 (34.29)	.600 (15.24) .175 (4.44)