

## MIL-DTL-38999 Series III Type 233-212-00 Wall-mount bulkhead feed-thrus

ENVIRONMENTAL CONNECTORS

Part Number Development													
Sample Part Number	233-212					-00	NF	17-8	P	N	S	N	-01
Series / Basic Part No.	233-212 = SuperNine Environmental Bulkhead feedthru												
Connector Style	00 = Wall Mount Receptacle with Slotted Holes CM = Wall Mount Receptacle with Metric Clinch Nuts CS = Wall Mount Receptacle with Standard Clinch Nuts HM = Wall Mount Receptacle with Metric Helicoils HS = Wall Mount Receptacle with Standard Helicoils												
Finish*	NF = Cadmium Olive Drab MT = Nickel PTFE			ME = Electroless Nickel ZR = Black Zinc Nickel									
Shell Size-Insert Arrangement*	Per MIL-STD-1560												
Contact Type (Panel Side) See Note 1	P = Pin, Panel Side; 500 Cycles    S = Socket, Panel Side; 500 Cycles												
Alternate Polarization*	A, B, C, D, E, N = Normal, U = Universal												
Contact Type (Flange Side) See Note 1	P = Pin, Flange Side; 500 Cycles    S = Socket, Flange Side; 500 Cycles												
Alternate Polarization*	A, B, C, D, E, N = Normal, U = Universal												
Panel Accommodation	-01 = .062/.125			-02 = .062/.250			-03 = .062/.500						

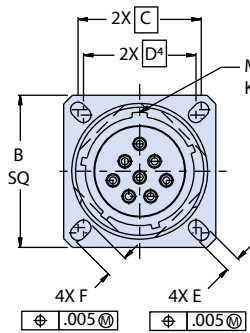
\*Refer to Section A for complete details

Dimensions												
Shell Size Code	Shell Size	A Thread -0.1P-0.3L- TS-2A	B Sq	B' Sq	C Bsc	D Bsc <sup>4</sup>	E	F	G	G'	H Thd	H' Thd
A	9	.6250	.949 (24.10) .925 (23.50)	1.094 (27.79) 1.054 (26.77)	.719 (18.26)	.594 (15.09)	.136 (3.45) .120 (3.05)	.224 (5.69) .208 (5.28)	.122 (3.10) .083 (2.11)	.179 (4.55) .140 (3.56)	.112-40	M3X0.5
B	11	.7500	1.043 (26.49) 1.019 (25.88)	1.187 (30.15) 1.147 (29.13)	.812 (20.62)	.719 (18.26)		.202 (5.13) .186 (4.72)				
C	13	.8750	1.138 (28.91) 1.114 (28.30)	1.281 (32.54) 1.241 (31.52)	.906 (23.01)	.812 (20.62)		.181 (4.60) .165 (4.19)				
D	15	1.0000	1.232 (31.29) 1.208 (30.68)	1.344 (34.14) 1.304 (33.12)	.969 (24.61)	.906 (23.01)						
E	17	1.1875	1.323 (33.60) 1.299 (32.99)	1.437 (36.50) 1.397 (35.48)	1.062 (26.97)	.969 (24.61)						
F	19	1.2500	1.449 (36.80) 1.425 (36.20)	1.531 (38.89) 1.491 (37.87)	1.156 (29.36)	1.062 (26.97)		.202 (5.13) .186 (4.72)				
G	21	1.3750	1.575 (40.00) 1.551 (39.40)	1.625 (41.28) 1.585 (40.26)	1.250 (31.75)	1.156 (29.36)						
H	23	1.5000	1.701 (43.21) 1.677 (42.60)	1.750 (44.45) 1.710 (43.43)	1.375 (34.92)	1.250 (31.75)	.162 (4.11) .146 (3.71)	.153 (3.89) .114 (2.90)	.190 (4.83) .170 (4.32)	.138-32	M4X0.7	
J	25	1.6250	1.823 (46.30) 1.799 (45.69)	1.875 (47.63) 1.835 (46.61)	1.500 (38.10)	1.375 (34.92)						

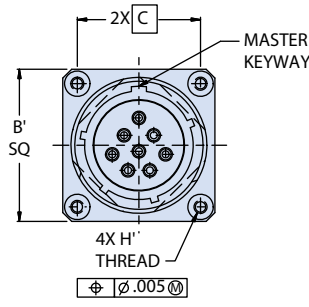
**MIL-DTL-38999 Series III Type**

**233-212-00 Wall-mount bulkhead feed-thrus**

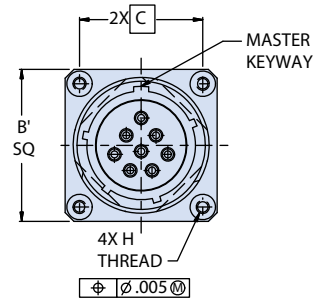
**00, CM, CS, HM, HS - WALL MOUNT RECEPTACLES**



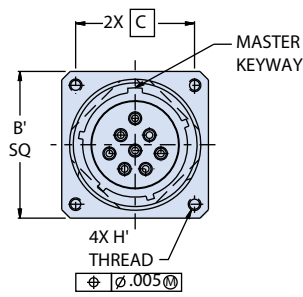
00 - SLOTTED HOLES



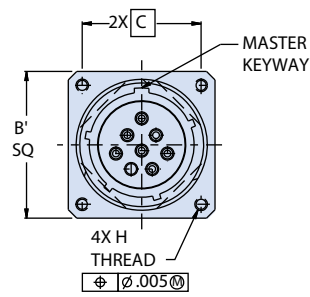
CM - METRIC CLINCH NUTS



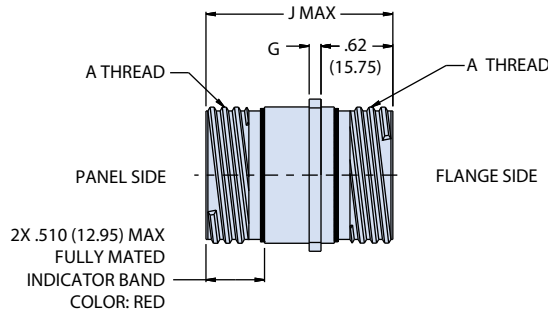
CS - STANDARD CLINCH NUTS



HM - METRIC HELICOILS



HS - STANDARD HELICOIL



Panel Accommodation		
Sym	Panel Thickness	J Max
01	.125 (3.18) .062 (1.57)	1.70 (43.18)
02	.250 (6.35) .062 (1.57)	1.83 (46.48)
03	.500 (12.70) .062 (1.57)	2.08 (52.83)

**NOTES:**

- 233-212 feed-thru connector is designed to meet or exceed the mechanical, dimensional, electrical, and environmental requirements of MIL-DTL-38999, D38999/20, and MIL-STD-1560 except as shown and/or noted. Feed-thru mates with any QPL manufacturer's MIL-DTL-38999, Series III plug connector, D38999/26, having the same shell size, insert arrangement, and polarization.
- For pin/pin and socket/socket, symmetrical layouts only, consult factory for available symmetrical insert arrangements.
- Power to a given contact on one end will result in power to a given contact directly opposite, regardless of identification letter.
- Front panel mount only
- Alternate polarization 'U' is a non-standard/non-mil-spec option, allows mating to any QPL manufacturers MIL-DTL-38999 connector, intended for use in testing facilities.
- Electrical safety limits must be established by user. Peak voltage, switching surge, transient, etcetera should be determined the safety application.
- Material/finish
  - Shell: see P/N development, finish
  - Contacts: copper alloy/gold plated
  - Insulators: high-grade rigid dielectric/N.A.
  - Seals: fluorosilicone blend/N.A.

**MIL-DTL-38999 Series III Type  
233-212-07 Jam-nut bulkhead feed-thru**

ENVIRONMENTAL CONNECTORS

Part Number Development													
Sample Part Number	233-212					-07	NF	17-8	P	N	S	N	-01
Series / Basic Part No.	233-212 = SuperNine Environmental Bulkhead Feed-thru												
Connector Style	07 = Jam-nut Receptacle												
Finish*	NF = Cadmium Olive Drab			ME = Electroless Nickel									
	MT = Nickel PTFE			ZR = Black Zinc Nickel									
Shell Size-Insert Arrangement*	Per MIL-STD-1560												
Contact Type (Panel Side) See Note 1	P = Pin, gold, 500 Cycles					S = Socket, gold, 500 Cycles							
Alternate Polarization* (Panel Side)	A, B, C, D, E, N = Normal, U = Universal												
Contact Type (Flange Side) See Note 1	P = Pin, gold, 500 Cycles					S = Socket, gold, 500 Cycles							
Alternate Polarization* (Flange Side)	A, B, C, D, E, N = Normal, U = Universal												
Panel Accommodation	See Panel Accommodation Table												

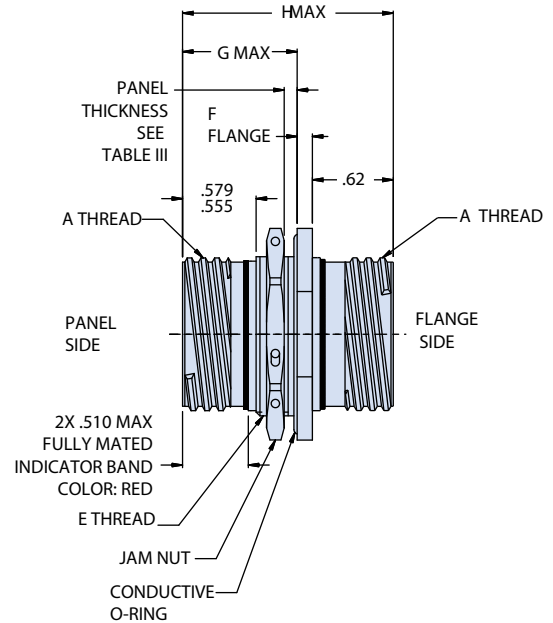
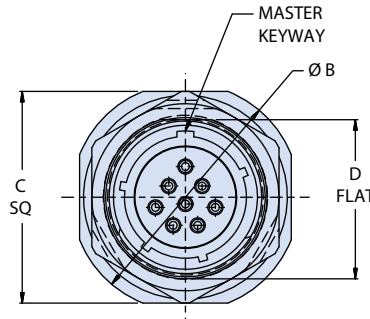
\*Refer to Section A for complete details

Dimensions							
Shell Size Code	Shell Size	A Thd	Ø B	C Sq	D Flat	E Thd ISO Metric	F
A	9	.6250 -0.1P-0.3L-TS-2A	1.200 (30.48) 1.178 (29.92)	1.078 (27.38) 1.048 (26.62)	.654 (16.61) .645 (16.38)	M17 X 1.0-6g	.122 (3.10) .083 (2.11)
B	11	.7500 -0.1P-0.3L-TS-2A	1.386 (35.20) 1.362 (34.59)	1.268 (32.21) 1.236 (31.39)	.755 (19.18) .745 (18.92)	M20 X 1.0-6g	
C	13	.8750 -0.1P-0.3L-TS-2A	1.512 (38.40) 1.488 (37.80)	1.390 (35.31) 1.358 (34.49)	.942 (23.93) .932 (23.67)	M25 X 1.0-6g	
D	15	1.0000 -0.1P-0.3L-TS-2A	1.638 (41.61) 1.614 (41.00)	1.516 (38.51) 1.484 (37.69)	1.066 (27.08) 1.056 (26.82)	M28 X 1.0-6g	
E	17	1.1875 -0.1P-0.3L-TS-2A	1.764 (44.81) 1.740 (44.20)	1.642 (41.71) 1.610 (40.89)	1.191 (30.25) 1.181 (30.00)	M32 X 1.0-6g*	
F	19	1.2500 -0.1P-0.3L-TS-2A	1.949 (49.50) 1.925 (48.90)	1.827 (46.41) 1.795 (45.59)	1.316 (33.43) 1.306 (33.17)	M35 X 1.0-6g	.153 (3.89) .114 (2.90)
G	21	1.3750 -0.1P-0.3L-TS-2A	2.075 (52.71) 2.051 (52.10)	1.953 (49.61) 1.921 (48.79)	1.441 (36.60) 1.431 (36.35)	M38 X 1.0-6g	
H	23	1.5000 -0.1P-0.3L-TS-2A	2.201 (55.91) 2.177 (55.30)	2.079 (52.81) 2.047 (51.99)	1.566 (39.78) 1.556 (39.52)	M41 X 1.0-6g	
J	25	1.6250 -0.1P-0.3L-TS-2A	2.323 (59.00) 2.299 (58.39)	2.205 (56.01) 2.173 (55.19)	1.691 (42.95) 1.681 (42.70)	M44 X 1.0-6g	

\* Modified major diameter 31.95 - 31.80 (1.257 - 1.252).

## MIL-DTL-38999 Series III Type

### 233-212-07 Jam-nut bulkhead feed-thru



ENVIRONMENTAL CONNECTORS

Panel Accommodation			
Sym	Panel Thickness	G Max	H Max
01	.125 (3.18) .062 (1.57)	.890 (22.61)	1.70 (43.18)
02	.250 (6.35) .062 (1.57)	1.015 (25.78)	1.83 (46.48)
03	.500 (12.70) .062 (1.57)	1.265 (32.13)	2.08 (52.83)

**NOTES:**

- 233-212-07 feed-thru connector is designed to meet or exceed the mechanical, dimensional, electrical, and environmental requirements of MIL-DTL-38999, D38999/24, and MIL-STD-1560 except as shown and/or noted. Feed-thru mates with any QPL manufacturer's MIL-DTL-38999, series III plug connector, D38999/26, having the same shell size, insert arrangement, and polarization.
- For pin/pin and socket/socket, symmetrical layouts only, consult factory for available symmetrical insert arrangements.
- Power to a given contact on one end will result in power to a given contact directly opposite, regardless of identification letter. Alternate polarization 'U' is a non-standard/non-mil-spec option, allows mating to any QPL manufacturers MIL-DTL-38999 connector, intended for use in testing facilities.
- Electrical safety limits must be established by user. Peak voltage, switching surge, transient, etc. should be used to determine the safety application.
- Material/finish
  - Shell, jam-nut: see part number development table, finish
  - contacts: copper alloy/gold plated
  - insulators: high-grade rigid dielectric/N.A.
  - seals: fluorosilicone blend/N.A.
  - O-ring: silver plated aluminum in fluorosilicone (cho-seal 1298 or equivalent)