

## MIL-DTL-38999 Series III Type

### 233-207 PCB wall-mount receptacle with flush flange

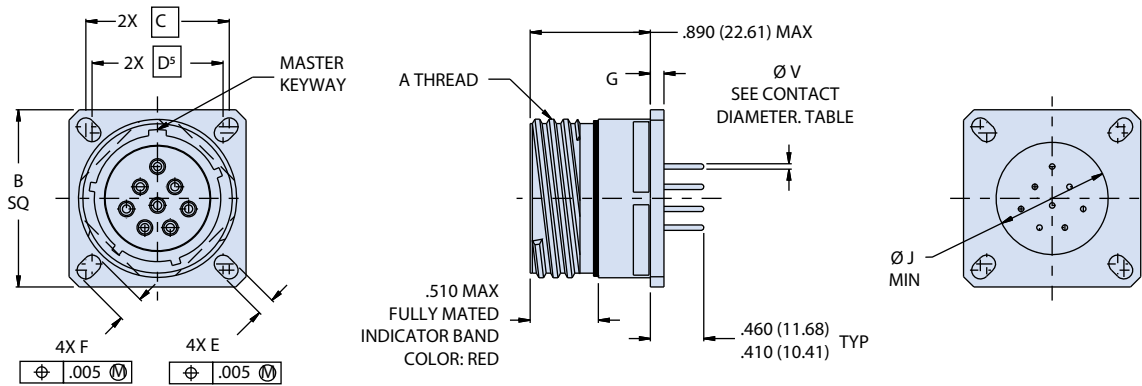
ENVIRONMENTAL CONNECTORS



Part Number Development					
Sample Part Number	233-207	-00	NF	17-8	P N
Series / Basic Part No.	233-207 = SuperNine PCB receptacle with flush flange				
Connector Style*	00 = Wall mount receptacle with slotted holes HM = Wall mount receptacle with metric helicoils HS = Wall mount receptacle with standard helicoils Additional shell styles available in metric and standard, consult factory				
Finish	NF = Al alloy/cadmium Olive Drab    MT = Al alloy/nickel PTFE ME = Al ally/Electroless Nickel    ZR = Al alloy/Black Zinc Nickel Consult factory for additional finish options				
Shell Size-Insert Arrangement*	Per MIL-STD-1560				
Contact Type	P = Pin, Gold, 1500 cycles    S = Socket, Gold, 1500 cycles    H = Pin, Pd/Ni, 1500 cycles J = Socket, Pd/Ni, 1500 cycles				
Alternate Polarization*	A, B, C, D, E, N = Normal (IAW MIL-DTL-38999 Series III)				

\*Refer to Section A for complete details

#### 00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



#### NOTES

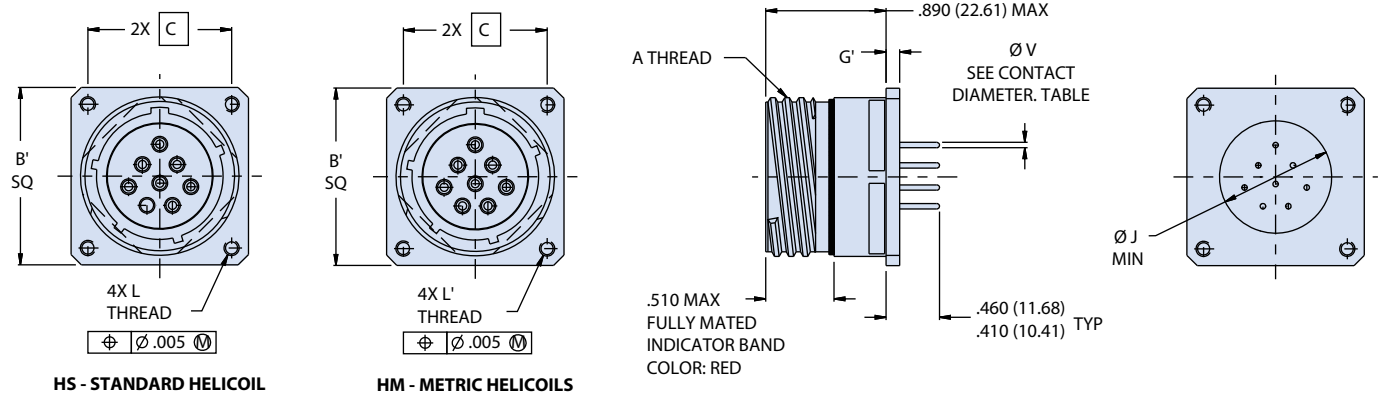
- 233-207 receptacle connector is designed to meet or exceed the mechanical, electrical, environmental and dimensional requirements of D38999/20 and MIL-STD-1560 except as shown and/or noted. Receptacle mates with any QPL manufacturer's D38999/26 Series III plug having the same shell size, insert arrangement and polarization.
- Insert arrangements IAW MIL-STD-1560, contact manufacturer for additional arrangements.
- 233-207 receptacle connector is designed with fixed PC tail contacts. Potting meets or exceeds ingress protection rating IP67 and is environmentally sealed with leak rate of  $< 1 \times 10^{-4}$  ccHe/sec in an unmated condition.
- 233-207 receptacle connector is designed to withstand a minimum of 1500 mating durability cycles when mated to a SuperNine® plug and appropriate contacts. Contact finish should be the same for both mating connectors to optimize performance.
- Front panel mount only
- Material/finish
  - Shell: see part number development, finish
  - Insulator: high-grade rigid dielectric/N.A.
  - Seals: fluorosilicone blend/N.A.
  - Contacts: copper alloy
  - Potting: epoxy/N.A.

PC Tail Diameter	
Contact Size	ØV
23	.020 (.51)
	.018 (.46)
22	.020 (.51)
	.018 (.46)
20	.030 (.76)
	.028 (.71)
16	.040 (1.02)
	.038 (.97)
12	.072 (1.83)
	.070 (1.78)

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

**233-207 PCB wall-mount receptacle with flush flange**

**HS AND HM - WALL MOUNT RECEPTACLE WITH METRIC OR STANDARD MOUNTING HOLES**



ENVIRONMENTAL CONNECTORS

Wall Mount Dimensions													
Shell Size Code	Shell Size	A Thread -0.1P-0.3L- TS-2A	B Sq	B' Sq	C Bsc	D Bsc <sup>5</sup>	E	F	G	G'	ØJ Min	L Thd	L' Thd
A	9	.6250	.948 (24.08) .925 (23.50)	1.094 (27.79) 1.054 (26.77)	.719 (18.26)	.594 (15.09)		.224 (5.69) .208 (5.28)				.340 (8.64)	
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)				.468 (11.89)	
C	13	.8750	1.137 (28.88) 1.114 (28.30)	1.281 (32.54) 1.241 (31.52)	.906 (23.01)	.812 (20.62)			.122 (3.10) .083 (2.11)			.572 (14.53)	
D	15	1.0000	1.232 (31.29) 1.208 (3.68)	1.344 (34.14) 1.304 (33.12)	.969 (24.61)	.906 (23.01)	.136 (3.45) .120 (3.05)	.181 (4.60) .165 (4.19)		.179 (4.55) .140 (3.56)		.705 (17.91)	.112-40 UNC
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)						.830 (21.08)	
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)				.934 (23.72)	
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)			.153 (3.89) .114 (2.90)			1.055 (26.80)	
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)	.250 (6.35) .234 (5.94)		.190 (4.83) .170 (4.32)		1.160 (29.46)	.138-32 UNC
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)						1.307 (33.20)	M4X0.7

# SuperNine® Environmental Series



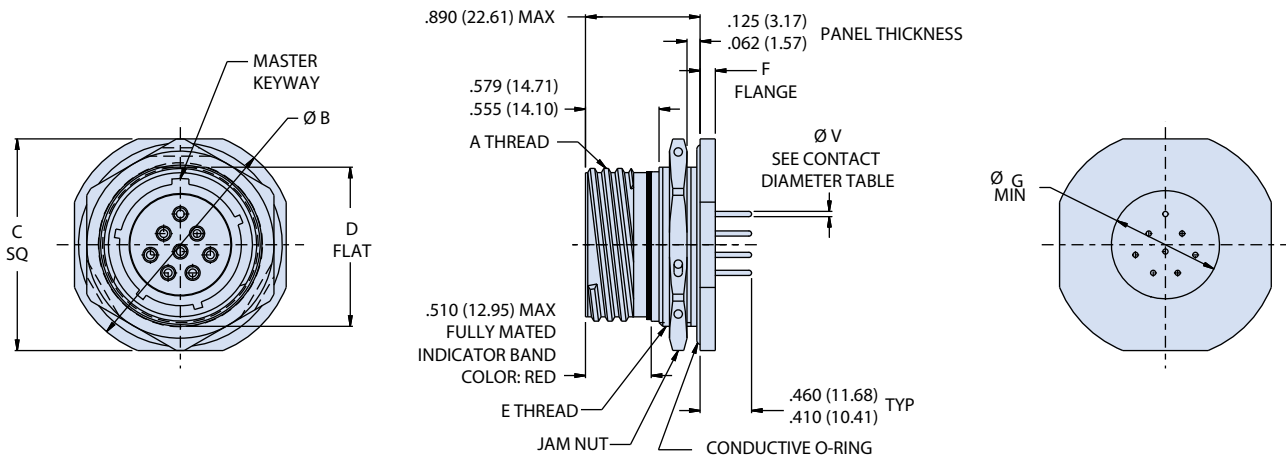
## MIL-DTL-38999 Series III Type

### 233-207-07 PCB receptacle with flush flange

ENVIRONMENTAL CONNECTORS

Part Number Development	
Sample Part Number	233-207 -07 NF 17-8 P N
Series / Basic Part No.	233-207 = SuperNine PCB receptacle with flush flange
Connector Style*	07 = Jam nut mount receptacle
Finish	NF = Al alloy/cadmium Olive Drab MT = Al alloy/nickel PTFE ME = Al alloy/electroless Nickel ZR = Al alloy/black Zinc Nickel Consult factory for additional finish options
Shell Size-Insert Arrangement*	Per MIL-STD-1560
Contact Type	P = Pin, Gold, 1500 cycles S = Socket, Gold, 1500 cycles H = Pin, Pd/Ni, 1500 cycles J = Socket, Pd/Ni, 1500 cycles
Alternate Polarization*	A, B, C, D, E, N = Normal (IAW MIL-DTL-38999 Series III)

Contact Diameter	
Contact Size	ØV
23	.020 (.51) .018 (.46)
22	.020 (.51) .018 (.46)
20	.030 (.76) .028 (.71)
16	.040 (1.02) .038 (.97)
12	.072 (1.83) .070 (1.78)



PC Tail Diameter	
Contact Size	ØM
23	.020 (.51) .018 (.46)
22	.020 (.51) .018 (.46)
20	.030 (.76) .028 (.71)
16	.040 (1.02) .038 (.97)
12	.072 (1.83) .070 (1.78)

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

**233-207-07 PCB receptacle with flush flange**

Jam Nut Dimensions										
Shell Size Code	Shell Size	A Thread -0.1P-0.3L-TS-2A	Ø B	C Sq	D Flat	E Thread ISO Metric	F	Ø G Min	Ø H	J Flat
A	9	.6250	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)	.340 (8.64)	.703 (17.86) .693 (17.60)	.661 (16.79) .654 (16.61)
B	11	.7500	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		.468 (11.89)	.835 (21.21) .825 (20.96)	.771 (19.58) .761 (19.33)
C	13	.8750	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		.572 (14.53)	1.020 (25.91) 1.010 (25.65)	.955 (24.26) .945 (24.00)
D	15	1.0000	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		.705 (17.91)	1.145 (29.08) 1.135 (28.83)	1.085 (27.56) 1.075 (27.30)
E	17	1.1875	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*		.830 (21.08)	1.270 (32.26) 1.260 (32.00)	1.210 (30.73) 1.200 (30.48)
F	19	1.2500	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)	.934 (23.72)	1.395 (35.43) 1.385 (35.18)	1.335 (33.91) 1.325 (33.65)
G	21	1.3750	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		1.055 (26.80)	1.520 (38.61) 1.510 (38.35)	1.460 (37.08) 1.450 (36.83)
H	23	1.5000	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		1.160 (29.46)	1.645 (41.78) 1.635 (41.53)	1.585 (40.26) 1.575 (40.00)
J	25	1.6250	2.323 (59.00)	2.205 (56.01)	1.691 (42.95)	M44 X 1.0-6g		1.307 (33.20)	1.770 (44.96)	1.710 (43.43)
			2.299 (58.39)	2.173 (55.19)	1.681 (42.70)			1.760 (44.70)	1.700 (43.18)	

Modified major diameter 31.95 - 31.80 (.257 - 1.252)

**NOTES**

- 233-207-07 receptacle connector is designed to withstand a minimum of 1500 mating durability cycles when mated to a SuperNine® plug and appropriate contacts. Contact finish should be the same for both mating connectors to optimize performance.
- 233-207-07 receptacle connector is designed with fixed PC tail contacts. Connector potting process meets or exceeds ingress protection rating IP67 and is environmentally sealed with a leak rate of < 1 X 10<sup>-4</sup> ccHe/sec in unmated condition.
- 233-207-07 receptacle connector is designed to meet or exceed the mechanical, electrical, environmental requirements of D38999/24 and MIL-STD-1560 except as shown and/or noted. Receptacle mates with any QPL manufacturer's D38999/26 Series III plug having same shell size, insert arrangement and polarization.
- Insert arrangements IAW MIL-STD-1560, contact manufacturer for additional arrangement options.
- Material/finish
  - Shell, jam-nut: see part number development, finish
  - Insulator: high-grade rigid dielectric/N.A.
  - Seals, grommet: fluorosilicone blend/N.A.
  - Potting: epoxy/N.A.
  - Contacts: copper alloy
  - O-ring: silver plated aluminum in fluorosilicone (cho-seal 1298 or equivalent)