

SuperNine® Environmental Series

MIL-DTL-38999 Series III Type

233-211-00 PCB dual-flange wall-mount receptacles



ENVIRONMENTAL CONNECTORS

Part Number Development						
Sample Part Number	233-211	-00	NF	17-8	P	N
Series / Basic Part No.	233-211 = SuperNine PCB receptacle with dual flange					
Connector Style*	00 = Wall Mount Receptacle with Slotted Holes and Standard Stand-Off Thread 10 = Wall Mount Receptacle with Slotted Holes and Metric Stand-Off Thread 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 DO = Wall Mount Receptacle with Round Holes					
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, U = Universal (IAW MIL-DTL-38999 Series III)					

*Refer to Section A for complete details

Dimensions										
Shell Size Code	Shell Size	A Thd 0.1P-0.3L-TS-2A	B Sq	B'	C Bsc	D Bsc ⁶	E	F	G	G'
A	9	.6250	.948 (24.08) .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)
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	1.137 (28.88) 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)		.202 (5.13) .186 (4.72)		
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)				
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)	.162 (4.11) .146 (3.71)	.250 (6.35) .234 (5.94)	.153 (3.89) .114 (2.90)	
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)				
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)				

Dimensions (Continued)										
Shell Size Code	Shell Size	ØH ±.005	ØJ Bsc	Ø K ±.005	L Rad ±.020	M ±.020	N ±.010	ØP ±.005	R Thd	R' Thd
A	9	1.016 (25.81)	.752 (19.10)	.532 (13.51)	.225 (5.72)	.275 (6.99)	.225 (5.72)	.535 (13.59)	.112-40 UNC	M3X0.5
B	11	1.062 (26.97)	.850 (21.59)	.595 (15.11)	.250 (6.35)	.290 (7.37)	.250 (6.35)	.560 (14.22)		
C	13	1.250 (31.75)	.994 (25.25)	.720 (18.29)	.375 (9.52)	.370 (9.40)	.250 (6.35)	.700 (17.78)		
D	15	1.375 (34.92)	1.119 (28.42)	.843 (21.41)	.438 (11.13)	.440 (11.18)	.325 (8.25)	.857 (21.77)		
E	17	1.500 (38.10)	1.237 (31.42)	1.000 (25.40)	.562 (14.27)	.495 (12.57)	.375 (9.52)	.980 (24.89)		
F	19	1.625 (41.28)	1.379 (35.03)	1.125 (28.58)	.875 (22.23)	.540 (13.72)	.500 (12.70)	1.060 (26.92)		
G	21	1.750 (44.45)	1.489 (37.82)	1.240 (31.50)	1.170 (29.72)	.625 (15.88)	.562 (14.27)	1.210 (30.73)	.138-32 UNC	M4X0.7
H	23	1.875 (47.63)	1.619 (41.12)	1.328 (33.73)	1.250 (31.75)	.660 (16.76)	.688 (17.48)	1.310 (33.27)		
J	25	2.000 (50.80)	1.744 (44.30)	1.453 (36.91)	1.375 (34.92)	.740 (18.80)	.750 (19.05)	1.460 (37.08)		

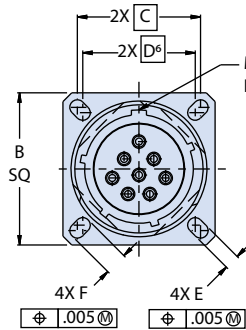
SuperNine® Environmental Series

MIL-DTL-38999 Series III Type

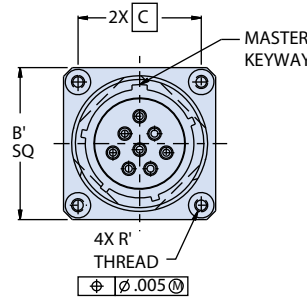
233-211-00 PCB dual-flange wall-mount receptacles



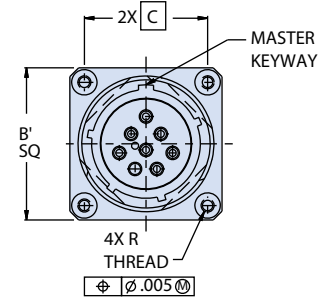
00,10, CM, CS, HM, HS, D0 - WALL MOUNT RECEPTACLE



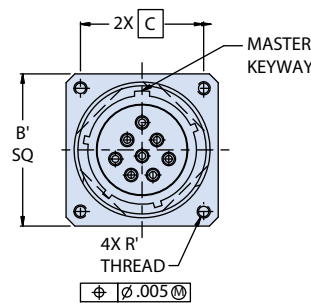
00 and 10 - SLOTTED HOLES



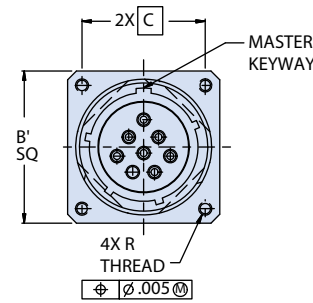
CM - METRIC CLINCH NUTS



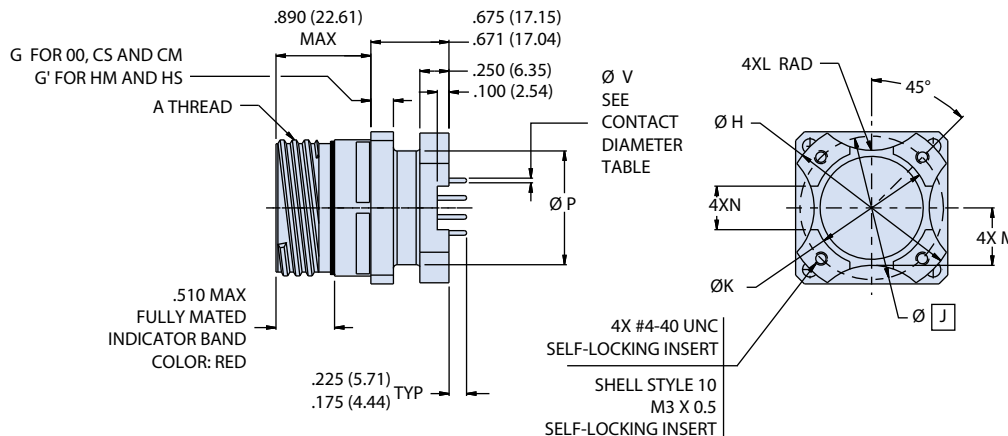
CS - STANDARD CLINCH NUTS



HM - METRIC HELICOILS



HS - STANDARD HELICOIL



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)

NOTES

- 233-211 is designed to meet or exceed the mechanical, electrical, environmental and dimensional requirements of D38999/20 or /24 and MIL-STD-1560 except as shown and/or noted.
- Receptacle mates with 233-205/206 or any QPL manufacturer's D38999/26 series III plug having the same shell size, insert arrangement and polarization.
- Insert arrangements IAW MIL-STD-1560.
- 233-211 receptacle connector is designed with fixed PC tail contacts. Potting meets or exceeds ingress protection rating IP67 and is environmentally sealed with a leak rate of $< 1 \times 10^{-4}$ ccHe/sec in an unmated condition.
- 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.
- Front panel mount only

MIL-DTL-38999 Series III Type

233-211-07 PCB dual-flange jam nut receptacles

ENVIRONMENTAL CONNECTORS



Part Number Development						
Sample Part Number	233-211	-07	NF	17-8	P	N
Series / Basic Part No.	233-211 = SuperNine PCB receptacle with dual flange					
Connector Style*	07 = Rear panel mount, jam-nut receptacle					
Finish	NF = Al alloy/cadmium olive drab ZR = Al alloy/black zinc nickel MT = Al alloy/nickel PTFE ME = Al alloy/electroless 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

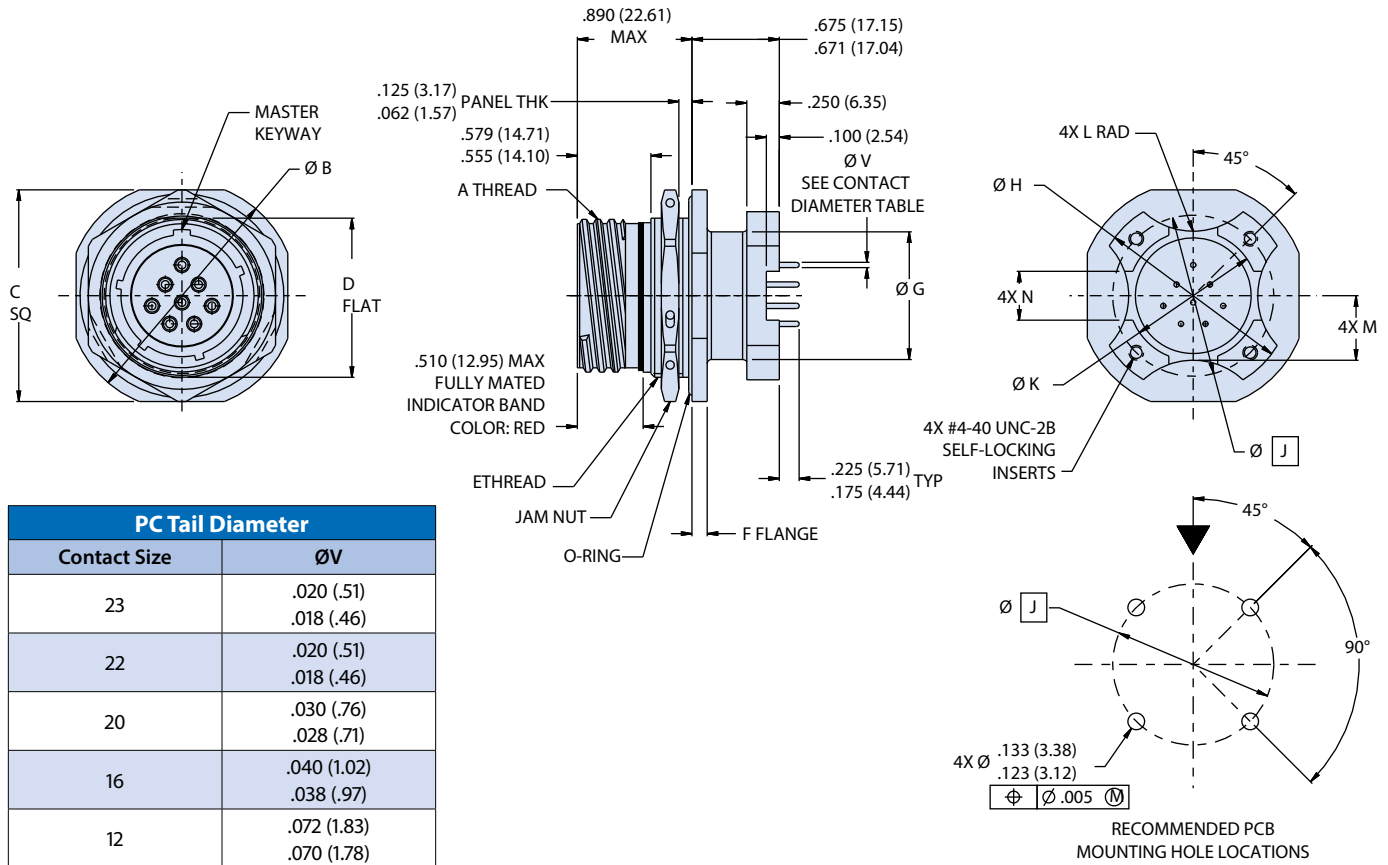
Dimensions														
Shell Size Code	Shell Size	A Thread -0.1P-0.3L- TS-2A	Ø B	C Sq	D Flat	E Thd ISO metric 1.0-6g 0.100R	F	Ø G ±.005	Ø H ±.005	Ø J Bsc	Ø K ±.005	L Rad ±.020	M ±.020	N ±.010
A	9	.6250	1.200 (30.48) 1.178 (29.92)	1.078 (27.38) 1.048 (26.62)	.654 (16.61) .645 (16.38)	M17	.122 (3.10) .083 (2.11)	.535 (13.59)	1.016 (25.81)	.752 (19.10)	.532 (13.51)	.225 (5.72)	.275 (6.99)	.225 (5.72)
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		.560 (14.22)	1.062 (26.97)	.850 (21.59)	.595 (15.11)	.250 (6.35)	.290 (7.37)	.250 (6.35)
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		.700 (17.78)	1.250 (31.75)	.994 (25.25)	.720 (18.29)	.375 (9.52)	.370 (9.40)	.250 (6.35)
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		.857 (21.77)	1.375 (34.92)	1.119 (28.42)	.843 (21.41)	.438 (11.13)	.440 (11.18)	.325 (8.25)
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 *	.153 (3.89) .114 (2.90)	.980 (24.89)	1.500 (38.10)	1.237 (31.42)	1.000 (25.40)	.562 (14.27)	.495 (12.57)	.375 (9.52)
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		1.060 (26.92)	1.625 (41.28)	1.379 (35.03)	1.125 (28.58)	.875 (22.23)	.540 (13.72)	.500 (12.70)
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		1.210 (30.73)	1.750 (44.45)	1.489 (37.82)	1.240 (31.50)	1.170 (29.72)	.625 (15.88)	.562 (14.27)
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		1.310 (33.27)	1.875 (47.63)	1.619 (41.12)	1.328 (33.73)	1.250 (31.75)	.660 (16.76)	.688 (17.48)
J	25	1.6250	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		1.460 (37.08)	2.000 (50.80)	1.744 (44.30)	1.453 (36.91)	1.375 (34.92)	.740 (18.80)	.750 (19.05)

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

MIL-DTL-38999 Series III Type

233-211-07 PCB dual-flange jam nut receptacles

07 - JAM-NUT MOUNT RECEPTACLE



NOTES

- 233-211 is designed to meet or exceed the mechanical, electrical, environmental and dimensional 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 the same shell size, insert arrangement and polarization.
- 233-211-07 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 $< 1 \times 10^{-4}$ ccHe/sec in an unmated condition.
- 233-211-07 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
- Insert arrangements IAW MIL-STD-1560. Contact manufacturer for additional arrangement options.
- Material/finish
 - Shell: see part number development, finish
 - Contacts: copper alloy/see part number development, contact type
 - Insulators: high-grade rigid dielectric/N.A.
 - Seals: fluorosilicone blend/N.A.
 - Potting: epoxy/N.A.
 - O-ring: silver plated aluminum in fluorosilicone (cho-seal 1298) or equivalent)