

233-225 dual flange receptacle with PC tail contacts

MIL-DTL-38999 Series III type, part number development



Part Number Development										
Sample Part Number	233-225				-00	ME	17	E	-	02 S N
Series / Basic Part	SuperNine® High-Speed, dual flange wall-mount receptacle									
Connector Style*	07 = Receptacle, Jam-Nut 00 = Receptacle, Wall-Mount with Slotted Holes and Stand Off with Standard Threads 10 = Receptacle, Wall-Mount with Slotted Holes and Stand Off with Metric Threads CM = Receptacle, Wall-Mount with Metric Clinch Nuts CS = Receptacle, Wall Mount with Standard Clinch Nuts HM = Receptacle, Wall Mount with Metric Helicoils HS = Receptacle, Wall Mount with Standard Helicoils									
Material/Finish	NF = Cadmium Olive Drab ME = Electroless Nickel				MT = Nickel PTFE ZR = Black Zinc Nickel					
Shell Size	9, 11, 13, 17, 19, 21, 23, 25									
Contact Type	C = Coax (per M39029/59 & /60) P = Power D = Differential Twinax Q = Quadrax (100 ohm) E = El Ochito T = Triax/Concentric Twinax (per /90 and /91) Specifications and PCB footprints on pages C-69 thru C-61									
Ground Option	G = Common Ground				- = None					
Insert Arrangement	Per MIL-STD-1560, see page C-5 and C-6									
Contact Style	P = Pin, PC Tail S = Socket, PC Tail									
Alternate Polarization*	A, B, C, D, E, N = Normal (IAW MIL-DTL-38999 Series III)									

*Refer to Section A for alternate key polarization options and recommended panel cutout dimensions

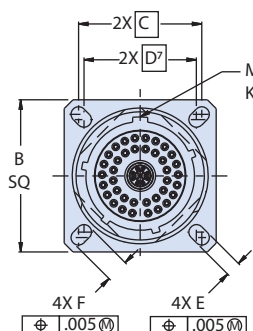
PC Tail Diameter	
Contact Size	PC Tail ØV
No. 22	.020 (0.51) .018 (0.46)
No. 20	.030 (0.76) .028 (0.71)
No. 16	.040 (1.02) .038 (0.97)
No. 12	.072 (1.78) .070 (1.78)
No. 8	.182 (4.62) .178 (4.52)

NOTES

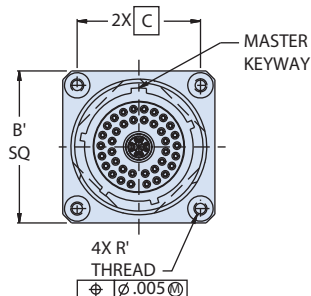
- Coax contact mating interfaces in accordance with the following:
 - Size #16 per M39029/76 & /77
 - Size #12 per M39029/102 & /103
 - Size #8 per M39029/50 & /60
- Ground plane option only available for insert arrangements where all contacts are shielded type.
- See page C-4, figure 2 for reference orientation of the inner pins relative to connector main keyway
- Glenair 233-225 wall mount (/20) and jam-nut (/24) receptacle connectors should be mated to Glenair's 233-217 plug with appropriate contacts to optimize performance.
- Glenair's 233-225 receptacle connector is designed to meet or exceed the mechanical, dimensional, electrical, and environmental requirements of MIL-DTL-38999, D38999/20, D38999/24 and MIL-STD-1560 except as shown and/or noted.
- All contacts are potted and non-removable.
- Front panel mount only
- Material/Finish
 - Shell: see part number development
 - Contacts: copper alloy / gold plated
 - Insulators: high grade rigid dielectric/ N.A.
 - For common ground option: aluminum alloy/manufactures option
 - Seals: fluorosilicone blend / N.A.
 - Potting: epoxy / N.A.

233-225 Wall-mount dual flange receptacle with PC tail contacts MIL-DTL-38999 Series III type, wall-mount

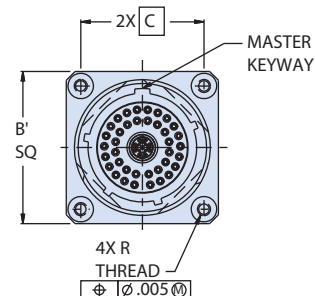
00, CM, CS, HM, HS - WALL MOUNT RECEPTACLES



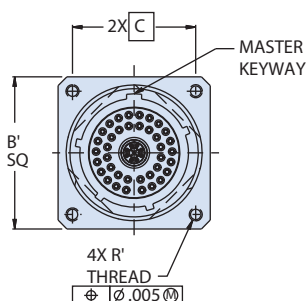
00 - WALL MOUNT RECEPTACLE WITH SLOTTED HOLES



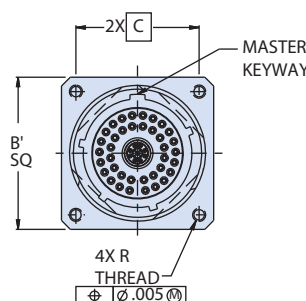
CM - WALL MOUNT RECEPTACLE WITH METRIC CLINCH NUTS



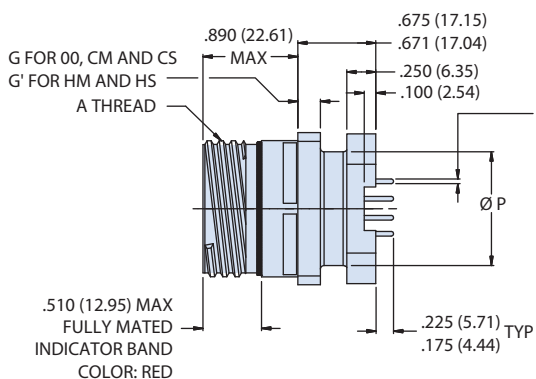
CS - WALL MOUNT RECEPTACLE WITH STANDARD CLINCH NUTS (SEE TABLE IV)



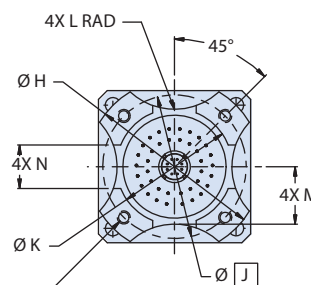
HM - WALL MOUNT RECEPTACLE WITH METRIC HELICOILS (SEE TABLE IV)



HS - WALL MOUNT RECEPTACLE WITH STANDARD HELICOIL (SEE TABLE IV)



Ø V
SEE PC TAIL DIAMETER TABLE



STYLE 00 4X R OR R' SELF-LOCKING INSERTS	STYLE CM AND HM 4X M3 X 0.5 SELF-LOCKING INSERTS	STYLE CS AND HS 4X #4-40 UNC-2B SELF-LOCKING INSERTS
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STYLE 00 SHOWN FOR REFERENCE ONLY

233-225 Wall-mount dual flange receptacle with PC tail contacts

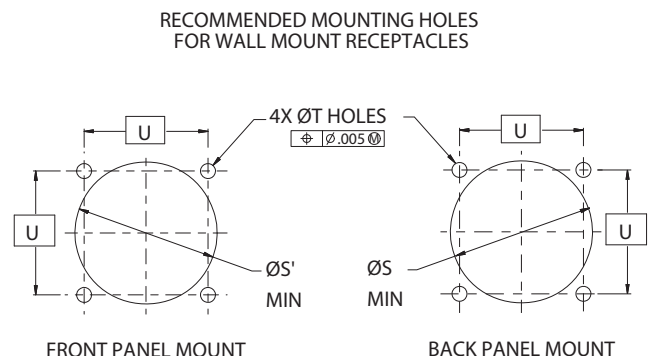
MIL-DTL-38999 Series III type, wall-mount

Dimensions										
Shell Size Code	Shell Size	A Thread	B Sq	B' Sq	C Bsc	D Bsc ⁸	E	F	G	G'
A	9	.6250 -0.1P-0.3L-TS-2A	.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)		
B	11	.7500 -0.1P-0.3L-TS-2A	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 -0.1P-0.3L-TS-2A	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)		
D	15	1.0000-0.1P-0.3L-TS-2A	1.232 (31.29) 1.208 (30.68)	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)
E	17	1.1875 -0.1P-0.3L-TS-2A	1.299 (32.99) 1.323 (33.60)	1.437 (36.50) 1.397 (35.48)	1.062 (26.97)	.969 (24.61)		.202 (5.13) .186 (4.72)		
F	19	1.2500 -0.1P-0.3L-TS-2A	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 -0.1P-0.3L-TS-2A	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)	
H	23	1.5000 -0.1P-0.3L-TS-2A	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)	
J	25	1.6250 -0.1P-0.3L-TS-2A	1.823 (46.30) 1.799 (45.69)	1.875 (47.63) 1.835 (46.61)	1.500 (38.10)	1.375 (34.92)				



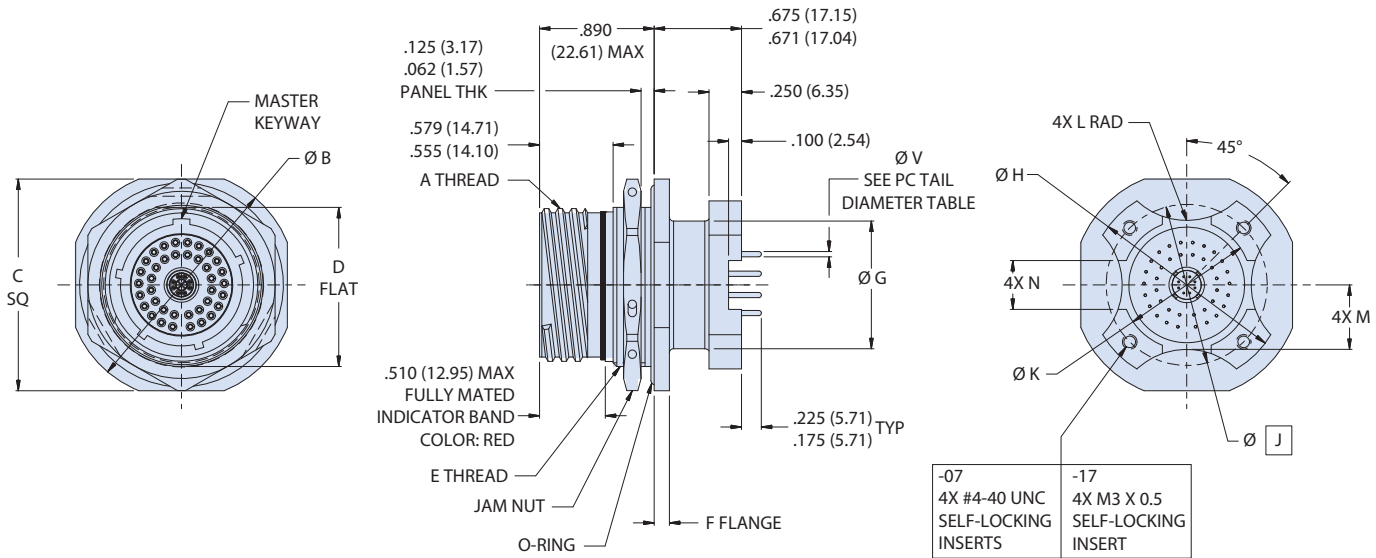
Dimensions (Continued)										
Shell Size Code	Shell Size	ØH ±.005 (0.13)	ØJ Bsc	ØK ±.005 (0.13)	L Rad ±.020 (0.51)	M ±.020 (0.51)	N ±.010 (0.25)	ØP ±.005 (0.13)	R Thd	R' Thd
A	9	1.016 (25.81)	.752 (19.10)	.532 (13.51)	.225 (5.72)	.275 (6.99)	.225 (5.72)	.535 (13.59)		
B	11	1.062 (26.97)	.850 (21.59)	.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)		
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)		

Wall Mount, Mounting Hole Dimensions					
Shell Size Code	Shell Size	ØS Min	ØS' Min ⁸	ØT Holes	U Bsc
A	9	.656 (16.66)	.516 (13.11)		.719 (18.26)
B	11	.796 (20.22)	.625 (15.88)		.812 (20.62)
C	13	.922 (23.42)	.750 (19.05)		.906 (23.01)
D	15	1.047 (26.59)	.906 (23.01)		.969 (24.61)
E	17	1.219 (30.96)	1.016 (25.81)		1.062 (26.97)
F	19	1.297 (32.94)	1.141 (28.98)		1.156 (29.36)
G	21	1.422 (36.12)	1.266 (32.16)		1.250 (31.75)
H	23	1.547 (39.29)	1.375 (34.92)	.159 (4.04) .149 (3.78)	1.375 (34.92)
J	25	1.672 (42.47)	1.484 (37.69)	.155 (3.94) .145 (3.68)	1.500 (38.10)

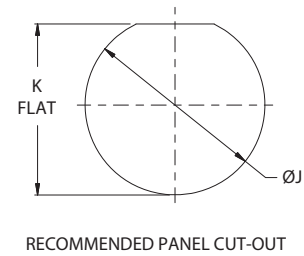


233-225 Jam-nut, dual flange receptacle with PC tail contacts MIL-DTL-38999 Series III type, jam-nut

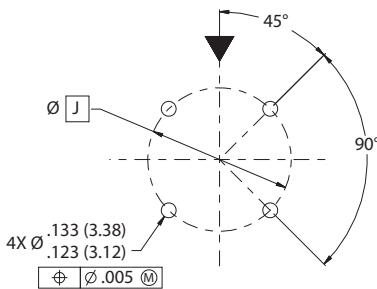
07 - JAM-NUT MOUNT RECEPTACLE



Jam-Nut Mount, Mounting Hole Dimensions							
Shell Size Code	Shell Size	ØJ	ØK Flat	Shell Size Code	Shell Size	ØJ	ØK Flat
A	9	.703 (17.86)	.661 (16.79)	E	17	1.270 (32.26)	1.210 (30.73)
		.693 (17.60)	.654 (16.61)			1.260 (32.00)	1.200 (30.48)
B	11	.835 (21.21)	.771 (19.58)	F	19	1.395 (35.43)	1.335 (33.91)
		.825 (20.96)	.761 (19.33)			1.385 (35.18)	1.325 (33.65)
C	13	1.020 (25.91)	.955 (24.26)	G	21	1.520 (38.61)	1.460 (37.08)
		1.010 (25.65)	.945 (24.00)			1.510 (38.35)	1.450 (36.83)
D	15	1.145 (29.08)	1.085 (27.56)	H	23	1.645 (41.78)	1.585 (40.26)
		1.135 (28.83)	1.075 (27.30)			1.635 (41.53)	1.575 (40.00)
				J	25	1.770 (44.96)	1.710 (43.43)
						1.760 (44.70)	1.700 (43.18)



RECOMMENDED PCB FOOTPRINT FOR WALL MOUNT AND JAM-NUT RECEPTACLES



RECOMMENDED PCB MOUNTING HOLE LOCATIONS

233-225 Jam-nut, dual flange receptacle with PC tail contacts

MIL-DTL-38999 Series III type, jam-nut

Dimensions							
Shell Size Code	Shell Size	A Thread -0.1P-0.3L-TS-2A	ØB	C Sq	D Flat	E Thread ISO Metric	F
A	9	.6250	1.200 (30.48) 1.178 (29.92)	1.078 (27.38) 1.048 (26.62)	0.654 (16.61) 0.645 (16.38)	M17 X 1.0-6g 0.100R	.122 .083
B	11	.7500	1.386 (35.20) 1.362 (34.59)	1.268 (32.21) 1.236 (31.39)	0.755 (19.18) 0.745 (18.92)	M20 X 1.0-6g 0.100R	
C	13	.8750	1.512 (38.40) 1.488 (37.80)	1.390 (35.31) 1.358 (34.49)	0.942 (23.93) 0.932 (23.67)	M25 X 1.0-6g 0.100R	
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 0.100R	
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 0.100R*	.153 .114
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 0.100R	
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 0.100R	
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 0.100R	
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 X 1.0-6g 0.100R	

* Modified major diameter 31.95 31.80 (1.257 - 1.252)

Dimensions								
Shell Size Code	Shell Size	Ø G ±.005 (0.00)	Ø H ±.005 (0.00)	Ø J Bsc	Ø K ±.005 (0.00)	L Rad ±.020 (0.00)	M ±.020 (0.00)	N ±.010 (0.00)
A	9	.535 (13.59)	1.016 (25.81)	.752 (19.10)	.532 (13.51)	.225 (5.72)	.275 (6.99)	.225 (5.72)
B	11	.560 (14.22)	1.062 (26.97)	.850 (21.59)	.595 (15.11)	.250 (6.35)	.290 (7.37)	.250 (6.35)
C	13	.700 (17.78)	1.250 (31.75)	.994 (25.25)	.720 (18.29)	.375 (9.52)	.370 (9.40)	.250 (6.35)
D	15	.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	.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	1.060 (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	1.210 (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	1.310 (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	1.460 (37.08)	2.000 (50.80)	1.744 (44.30)	1.453 (36.91)	1.375 (34.92)	.740 (18.80)	.750 (19.05)