

A low-angle photograph of a technician wearing a flight suit, goggles, and gloves, working on the underside of an aircraft. The technician is holding a screwdriver and reaching up towards a large, curved metal component. The background is a clear blue sky.

LIGHTWEIGHT, LOW RESISTANCE

CODE RED

“Mission-Critical” hermetic sealing with 1×10^{-7} leak-rate performance

Hermetically-sealed interconnects used in vacuum or high-altitude applications prevent moisture and other contaminants from damaging sensitive electronic equipment. Glass-to-metal hermetic sealing has been the gold standard in the aerospace and petrochemical industries for decades due to the strength and long-term durability of the materials used. But glass-to-metal seal hermetics come with a big price tag in both weight and electrical resistance.

CODE RED is an innovative sealing encapsulant and application process—invented by Glenair—that provides durable hermetic sealing in a lightweight aluminum package. CODE RED allows for the use of conventional gold-plated copper alloy contacts, significantly improving electrical performance. CODE RED hermetic connectors are available now in Glenair SuperNine® (D38999 Series III type metal and composite), Series 80 Mighty Mouse, and M24308 D-Sub; and deliver reliable, life-of-system 1×10^{-7} max leak-rate hermetic sealing. Special non-magnetic (zero residual magnetism) versions are also available, consult factory.

- Full hermetic sealing, 1×10^{-7} in a lightweight aluminum shell with low electrical resistance gold-plated copper contacts
- Passed full D38999/23 qualification testing
- Meets NASA outgassing requirements, as well as aerospace temperature and corrosion resistance standards
- Operating temperature -65°C to $+200^{\circ}\text{C}$
- Available today in Mighty Mouse 806 Mil-Aero, M24308/9 D-Sub and D38999/23
- Significant weight savings—up to +50%
- Order-of-magnitude improvement in current carrying capacity and electrical resistance compared to Kovar/Inconel solutions

MIL-DTL-38999 Series I Type
231-250 Code Red lightweight hermetic receptacle

HERMETIC CONNECTORS

CODE RED



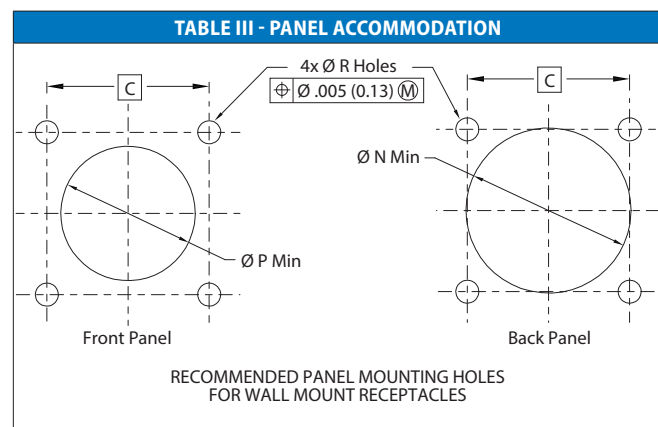
CONNECTOR FEATURES

- Bayonet coupling for rapid mating
- Scoop proof technology
- MIL-STD-1560 insert arrangements
- Same EMI performance as D38999 Series III
- Quick turn, positive lock, full mate indicator
- 500 cycles per D38999
- Enhanced finishes like Passivated stainless steel and Electrodeposited Nickel over stainless steel
- Available in Jam-nut, solder and box mount
- Meets 1×10^{-7} cc/sec He leak requirement
- Hi-reliability stainless steel bayonets utilized

HOW TO ORDER							
Sample Part Number	231-250	-D0	NF	17	-8	P	N
Basic Part Number	231-250						
Connector Style	07 = Receptacle, Jam-nut D0 = Receptacle, Wall-mount Front Panel, Standard Holes E0 = Receptacle, Extended Wall-mount, Back Panel, Standard Holes (MS27656T)						
Material / Finish	See Table I						
Connector Size	9, 11, 13, 15, 17, 19, 21, 23, 25						
Insert Arrangement	Per MIL-STD-1560						
Contact Style	P = Pin, Solder Cup S = Socket, Solder Cup C = Pin, PC Tail D = Socket, PC Tail						
Alternate Polarization	A, B, C, D (N = Normal)						

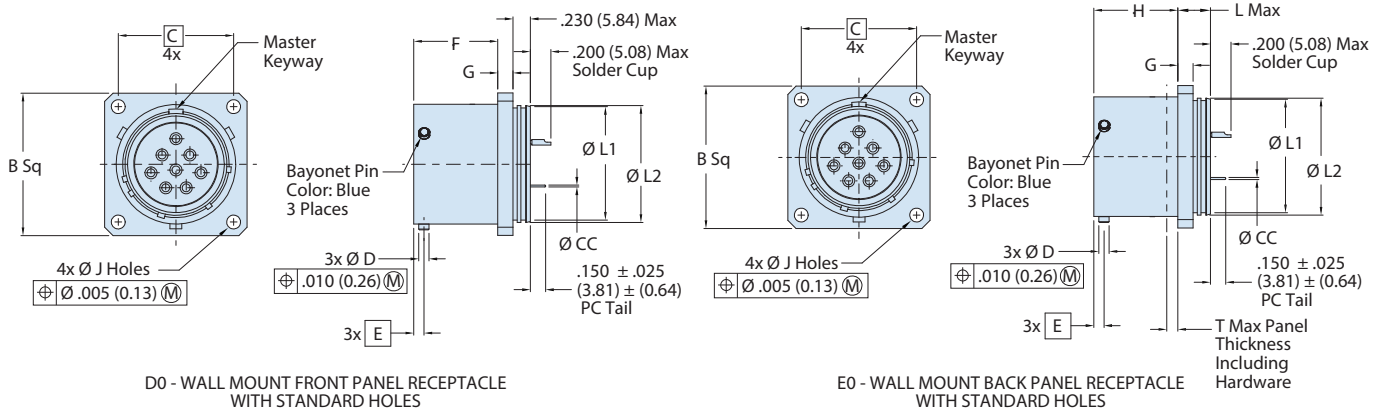
TABLE I - MATERIAL/FINISH			
SYM	Material	Finish	Temp. Range
AB	Marine Bronze	None (Clean Only)	-65° to +200°C
MA	Aluminum Alloy	Electroless Nickel, Matte Finish	
ME		Electroless Nickel	
NF		Cad/O.D. Over Electroless Nickel	
ZN	Aluminum Alloy	Zinc Ni, Olive Drab	-65° to +175°C
ZR		Zinc Ni, Black (Tri-Valent Cr)	
Z1		CRES, Passivated	
ZL	Stainless Steel	CRES, Nickel Finish	-65° to +200°C

TABLE II - PC TAIL	
Contact Size	Ø CC
22D	.020 .018
20	.030 .028
16	.040 .038
12	.072 .070



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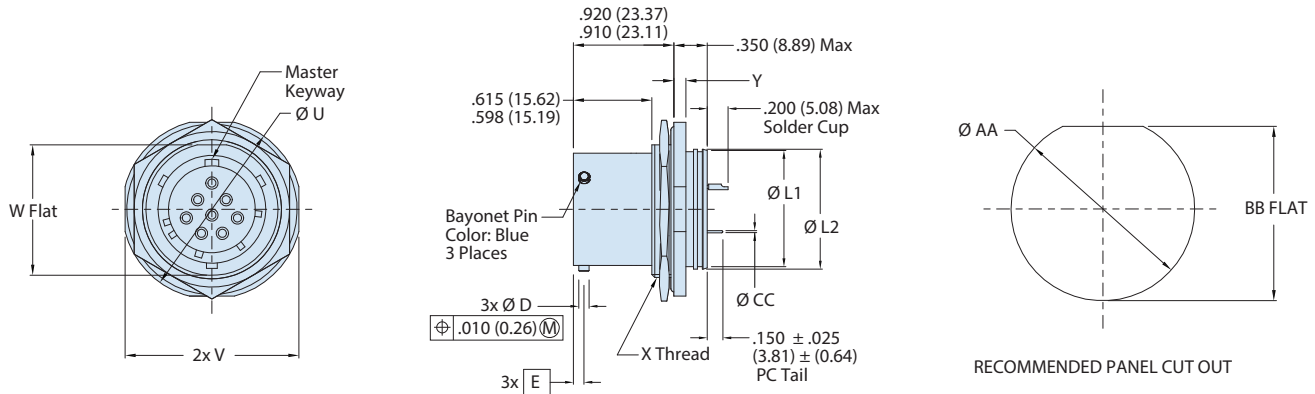
231-250-D0 WALL-MOUNT FRONT PANEL RECEPTACLE WITH STANDARD HOLES
231-250-E0 WALL-MOUNT BACK PANEL RECEPTACLE WITH STANDARD HOLES



CONNECTOR AND PANEL-MOUNT DIMENSIONS																			
Shell Size Code	Shell Size	B Sq	C Bsc	ØD	E Bsc	F	G	G'	H	ØJ Holes	K	K'	L Max	ØL1 ±.012	ØL2 0.012 0.000	ØN Min	ØP Min	ØR Holes	T Max
A	9	0.958 (24.33) 0.918 (23.32)	0.719 (18.26)	0.084 (2.13) 0.076 (1.93)	0.100 (2.54)	0.632 (16.05) 0.627 (15.93)	0.100 (2.54) 0.085 (2.16)	0.179 (4.55) 0.140 (3.56)	0.820 (20.83) 0.815 (20.70)	0.138 (3.51) 0.123 (3.12)	.112-40 UNC-3B	M3X0.5	0.300 (7.62)	0.602 (15.29)	0.642 (16.31)	0.656 (16.66)	0.658 (16.71)	0.133 (3.38) 0.123 (3.12)	0.234 (5.94)
B	11	1.051 (26.70) 1.011 (25.68)	0.812 (20.62)											0.724 (18.39)	0.764 (19.41)	0.796 (20.22)	0.780 (19.81)		
C	13	1.145 (29.08) 1.105 (28.07)	0.906 (23.01)											0.850 (21.59)	0.894 (22.71)	0.922 (23.42)	0.910 (23.11)		
D	15	1.239 (31.47) 1.199 (30.45)	0.969 (24.61)											0.976 (24.79)	1.020 (25.91)	1.047 (26.59)	1.036 (26.31)		
E	17	1.332 (33.83) 1.292 (32.82)	1.062 (26.97)			1.102 (27.99)	1.142 (29.01)	1.219 (30.96)	1.158 (29.41)										
F	19	1.458 (37.03) 1.418 (36.02)	1.156 (29.36)			1.228 (31.19)	1.268 (32.21)	1.297 (32.94)	1.284 (32.61)										
G	21	1.582 (40.18) 1.542 (39.17)	1.250 (31.75)			0.602 (15.29) 0.597 (15.16)	0.130 (3.30) 0.115 (2.92)	0.190 (4.83) 0.170 (4.32)	0.790 (20.07) 0.785 (19.94)	0.157 (3.99) 0.142 (3.61)				.138-32 UNC-3B	M4X0.7	0.330 (8.38)	1.350 (34.29)		
H	23	1.708 (43.38) 1.668 (42.37)	1.375 (34.93)	1.476 (37.49)	1.520 (38.61)						1.547 (39.29)	1.536 (39.01)							
J	25	1.832 (46.53) 1.792 (45.52)	1.500 (38.10)	1.602 (40.69)	1.642 (41.71)						1.672 (42.47)	1.658 (42.11)							

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231-250-07 JAM-NUT MOUNT RECEPTACLE



07 - JAM NUT MOUNT RECEPTACLE (MS27470 REF)

CONNECTOR AND PANEL-MOUNT DIMENSIONS								
Shell Size Code	Shell Size	ØU	V	W Flat	X Thread	Y	ØAA	BB Flat
A	9	1.204 (30.58)	1.078 (27.38)	0.655 (16.64)	.6875-24 UNEF-2A	.120 (3.05) .099 (2.51)	0.703 (17.86)	0.661 (16.79)
		1.172 (29.77)	1.046 (26.57)	0.645 (16.38)			0.693 (17.60)	0.654 (16.61)
B	11	1.391 (35.33)	1.266 (32.16)	.755 (19.18)	.8125-20 UNEF-2A		.835 (21.21)	.771 (19.58)
		1.359 (34.52)	1.234 (31.34)	.745 (18.92)			.825 (20.96)	.761 (19.33)
C	13	1.516 (38.51)	1.391 (35.33)	0.942 (23.93)	1.000-20 UNEF-2A		1.020 (25.91)	0.955 (24.26)
		1.484 (37.69)	1.359 (34.52)	0.932 (23.67)			1.010 (25.65)	0.945 (24.00)
D	15	1.641 (41.68)	1.516 (38.51)	1.066 (27.08)	1.1250-18 UNEF-2A		1.145 (29.08)	1.085 (27.56)
		1.609 (40.87)	1.484 (37.69)	1.056 (26.82)			1.135 (28.83)	1.075 (27.31)
E	17	1.766 (44.86)	1.641 (41.68)	1.191 (30.25)	1.2500-18 UNEF-2A		1.270 (32.26)	1.210 (30.73)
		1.734 (44.04)	1.609 (40.87)	1.181 (30.00)			1.260 (32.00)	1.200 (30.48)
F	19	1.954 (49.63)	1.828 (46.43)	1.316 (33.43)	1.3750-18 UNEF-2A		1.395 (35.43)	1.335 (33.91)
		1.922 (48.82)	1.796 (45.62)	1.306 (33.17)			1.385 (35.18)	1.325 (33.66)
G	21	2.078 (52.78)	1.954 (49.63)	1.441 (36.60)	1.5000-18 UNEF-2A	.151 (3.84) .130 (3.30)	1.520 (38.61)	1.460 (37.08)
		2.046 (51.97)	1.922 (48.82)	1.431 (36.35)			1.510 (38.35)	1.450 (36.83)
H	23	2.204 (55.98)	2.078 (52.78)	1.566 (39.78)	1.6250-18 UNEF-2A		1.645 (41.78)	1.585 (40.26)
		2.172 (55.17)	2.046 (51.97)	1.556 (39.52)			1.635 (41.53)	1.575 (40.01)
J	25	2.328 (59.13)	2.204 (55.98)	1.691 (42.95)	1.7500-18 UNEF-2A		1.770 (44.96)	1.710 (43.43)
		2.296 (58.32)	2.172 (55.17)	1.681 (42.70)			1.760 (44.70)	1.700 (43.18)