

SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



PCB Board Mount Receptacles with PC Tail or Solder Cup Termination



Environmental, PCB Receptacle 802-012 connectors feature solder cup or PC tail termination for PCB board mount applications. Contacts are non-removable. Connectors are backfilled with epoxy and are paralyene compatible. Specify 802-012 connectors for applications where open face water immersion is not a requirement.

Water Tight PCB Receptacle 802-030 connectors are identical to 802-012 but are specially sealed ("MOD-518") and 100% tested to meet 1×10^{-4} ccHe/sec @ 1 atm helium leak rate. Connectors meet MIL-STD-810 Method 512G immersion requirements in unmated/open face condition.

How To Order						
Sample Part Number	802-012	-00	Z1	9-200	P	A
Series	802-012 = Receptacle for Solder Cup or PCB Termination, with Standard Epoxy Potting 802-030 = Receptacle for Solder Cup or PCB Termination, with Special "MOD-518" Sealing for Open Face (Unmated) Water Immersion Requirements. 100% Leak Tested.					
Shell Style (See Table I)	-00 = Jam-Nut, Front Panel Mount -02 = Square Flange, Front Panel Mount -07 = Jam-Nut, Rear Panel Mount					
Shell Material and Finish	Z1 = Stainless Steel / Passivated ZM = Stainless Steel / Electroless Nickel Plated AB = Marine Bronze / Unplated					
Shell Size - Insert Arrangement	See Contact Arrangements page F-3 See Section B for PCB Footprints					
Contact Type	P = Pin, PC Tail E = Pin, Solder Cup S = Socket, PC Tail F = Socket, Solder Cup					
Polarization (See Table II)	A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F					

Table I: Shell Style

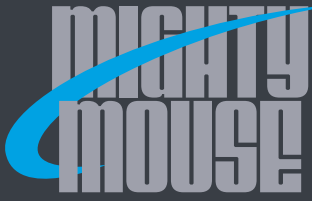
-00 Jam-Nut, Front Panel Mount	-02 Square Flange, Front Panel Mount	-07 Jam-Nut, Rear Panel Mount

Table II: Key Positions

Key Position	Key Rotation	
	A°	B°
A Normal	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°

NOTES

- Contacts are PCB and solder type
- Mates to 802 series receptacle
- Performance capabilities:
 - Current rating: 5 amp max
 - Contact voltage drop: 70 millivolts max at 5 amps, 25°C
 - Hydrostatic pressure rating: 3500 PSI fully mated and properly molded
- Insulation resistance: 5,000 megohms minimum
DWV: 500 VAC
- Electrical safety limits to be set by user peak voltages, switching surges, transients etc. should be used to determine safe application
- See page F-8 for panel cut-out dimensions
- Material/finish
 - Shell, receptacle: SST / see How-to-Order
 - Insulator: high grade rigid dielectric
 - Interfacial seal: fluorosilicone
 - Contact: copper alloy / gold plate per ASTM B 488, Type II Class 1.25, over a suitable underplate
 - O-ring: Viton 90 shore / N.A.
 - Potting: epoxy

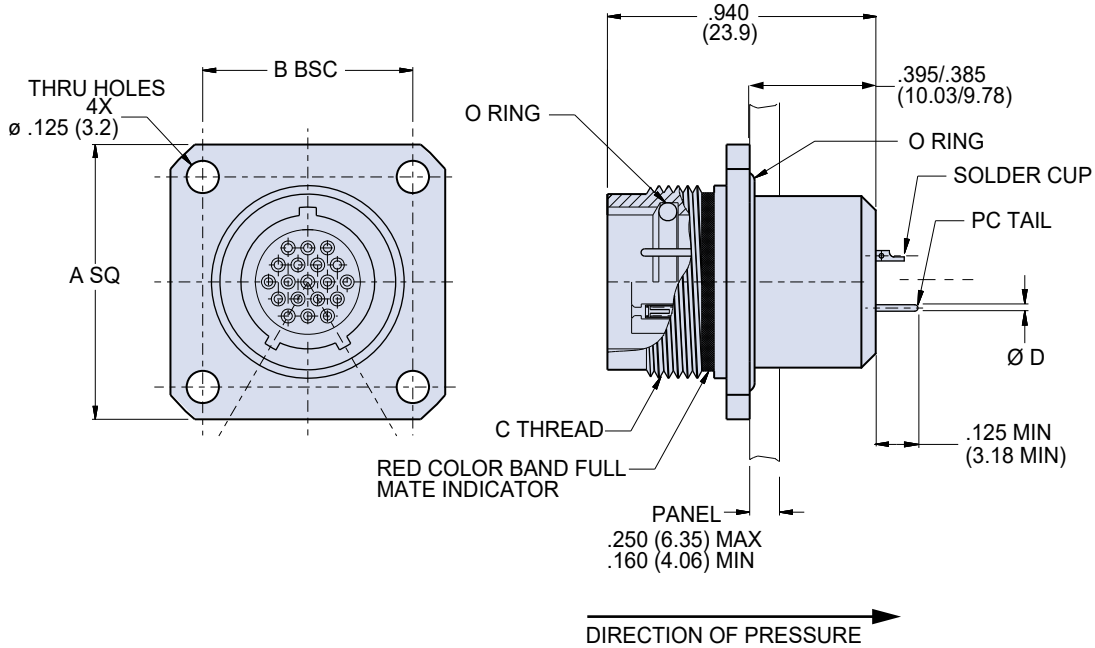


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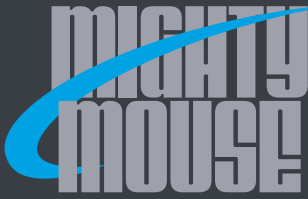
Square Flange PCB Receptacle with O-ring
Sealing and PC Tail or Solder Cup Termination

SQUARE FLANGE, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02



Dimensions					
Shell Size	A Square	B BSC	C Mating Threads	$\varnothing D$ Tail Dia.	$\varnothing E$
5	.885 (22.48)	.500 (12.70)	.4375-28 UNEF	.018/.022 (0.46/0.56)	.327 (8.31)
6	1.010 (25.65)	.625 (15.88)	.5625-20 UN		.390 (9.91)
7	1.072 (27.23)	.688 (17.48)	.6250-20 UN	#23	.515 (13.08)
8	1.135 (28.83)	.750 (19.05)	.6875-20 UN		.577 (14.66)
9	1.195 (30.35)	.812 (20.62)	.7500-20 UNEF	#20	.640 (16.26)
10	1.260 (32.00)	.875 (22.23)	.8125-20 UNEF		.702 (17.83)
12	1.323 (33.60)	.938 (23.83)	.8750-20 UNEF	#16	.765 (19.43)
14	1.510 (38.35)	1.125 (28.58)	1.0625-20 UN		.953 (24.21)
15	1.573 (39.95)	1.188 (30.18)	1.1250-20 UN	#12	1.015 (25.78)
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN		1.312 (33.32)

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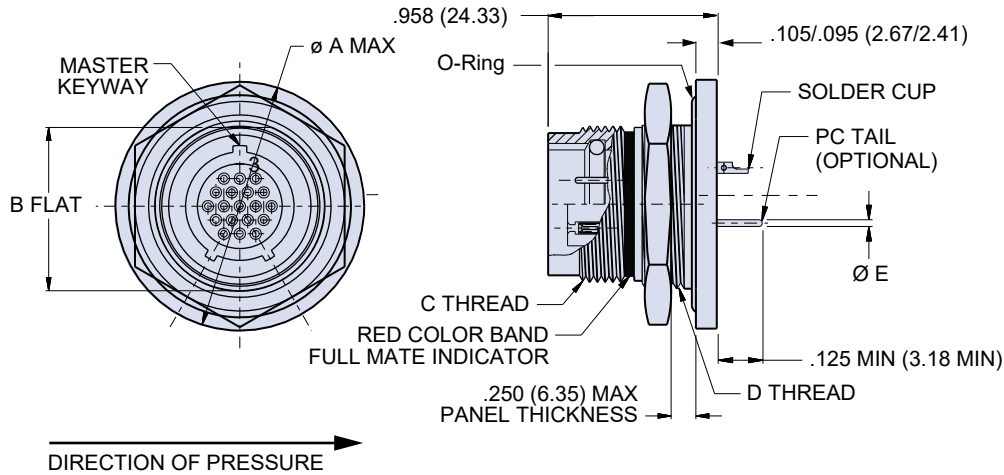


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Jam-Nut Rear Panel Mount PCB Receptacle with PC Tail or Solder Cup Termination

JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



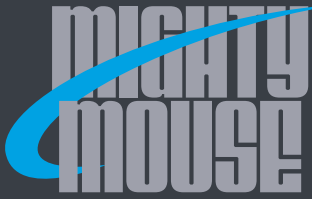
Dimensions

Shell Size	ϕA Max.	B Flat $\pm .003 (\pm 0.08)$	C Mating Threads	D Threads	ϕE Tail Dia.	F Flat $\pm .003 (\pm 0.08)$	ϕG
5	.885 (22.48)	.466 (11.84)	.4375-28 UNEF	.5000-32 UN-2A	#23 #20 #16 #12	.477 (12.12)	.510 (12.95)
6	1.010 (25.65)	.591 (15.01)	.5625-20 UN	.6250-28 UN-2A		.602 (15.29)	.635 (16.13)
7	1.072 (27.23)	.653 (16.59)	.6250-20 UN	.6875-28 UN-2A		.664 (16.87)	.697 (17.70)
8	1.135 (28.83)	.716 (18.19)	.6875-20 UN	.7500-28 UN-2A		.727 (18.47)	.760 (19.30)
9	1.195 (30.35)	.778 (19.76)	.7500-20 UNEF	.8125-28 UN-2A		.789 (20.04)	.822 (20.88)
10	1.260 (32.00)	.827 (21.01)	.8125-20 UNEF	.8750-28 UN-2A		.838 (21.29)	.885 (22.48)
12	1.322 (33.58)	.890 (22.61)	.8750-20 UNEF	.9375-28 UN-2A		.901 (22.89)	.948 (24.08)
14	1.510 (38.35)	1.077 (27.36)	1.0625-20 UN	1.1250-28 UN-2A		1.088 (27.64)	1.135 (28.83)
15	1.572 (39.93)	1.140 (28.96)	1.1250-20 UN	1.1875-28 UN-2A		1.151 (29.24)	1.198 (30.43)
21	1.940 (49.28)	1.463 (37.16) 1.467 (37.26)	1.4375-20 UN	1.500-28 UN-2A		1.473 (37.41)	1.510 (38.35)

Material/finish

- Shell, receptacle, jam-nut: SST / see How to Order table
- Insulator: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact: copper alloy / gold plate per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton 90 shore / N.A.
- Potting: epoxy

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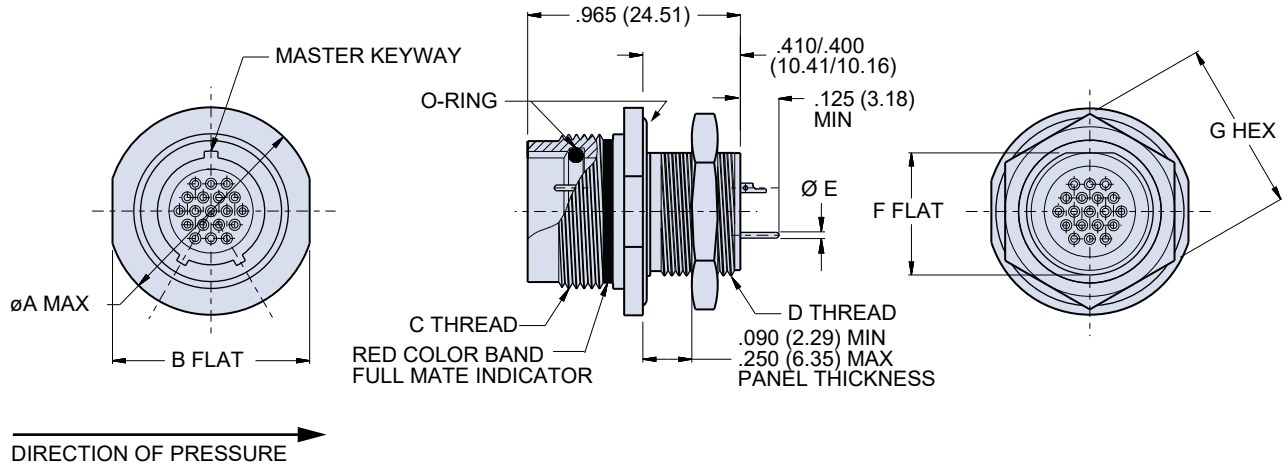


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Jam-Nut Front Panel Mount PCB Receptacle with
PC Tail or Solder Cup Termination

JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 00



Dimensions							
Shell Size	Ø A Max.	B Flat	C Mating Threads	D Threads	Ø E Tail Dia.	F Flat	G Hex
5	.72 (18.29)	.625 (15.88)	.4375-28 UNEF-2A	.312-28 UN-2A	#23 .018/.022 (0.46/0.56)	.281 (7.14)	.500 (12.70)
6	.78 (19.81)	.750 (19.05)	.5625-20 UN-2A	.438-28 UN-2A		.344 (8.74)	.625 (15.88)
7	.91 (23.11)	.812 (20.62)	.6250-20 UN-2A	.500-32 UN-2A		.469 (11.91)	.688 (17.48)
8	.96 (24.38)	.875 (22.23)	.6875-20 UN-2A	.562-28 UN-2A	#20 .024/.028 (0.61/0.71)	.531 (13.49)	.750 (19.05)
9	1.03 (26.16)	.937 (23.80)	.7500-20 UNEF-2A	.625-28 UN-2A		.594 (15.09)	.812 (20.62)
10	1.09 (27.69)	1.000 (25.40)	.8125-20 UNEF-2A	.687-28 UN-2A	#16 .060/.064 (1.52/1.63)	.656 (16.66)	.875 (22.23)
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF-2A	.750-28 UN-2A		.719 (18.26)	.938 (23.83)
14	1.34 (34.04)	1.250 (31.75)	1.0625-20 UN-2A	.938-28 UN-2A		.893 (22.68)	1.125 (28.58)
15	1.41 (35.81)	1.312 (33.32)	1.1250-20 UN-2A	1.000-28 UN-2A	#12 .092/.096 (2.34/2.44)	.955 (24.26)	1.188 (30.18)
21	1.70 (43.18)	1.562 (39.67)	1.4375-20 UN-2A	1.312-28 UN		1.257 (31.93)	1.500 (38.10)

Material/finish

- Shell, receptacle, jam-nut: SST / see How to Order table
- Insulator: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact: copper alloy / gold plate per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton 90 shore / N.A.
- Potting: epoxy

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