

SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic PCB Receptacles with PC Tails or Solder Cups; 1000 PSI Open Face Rated



Series 802 Hermetic Receptacles 100% tested to meet 1×10^{-7} ccHe/sec @ 1 atm. Connectors feature gold plated iron alloy contacts and compression glass dielectric material. The 316 stainless steel connector shell provides excellent corrosion protection. Viton® o-rings offer improved resistance to high temperature and harsh chemicals. Open face (unmated) pressure rating is 1000 PSI. When mated, Series 802 connectors withstand 3500 PSI hydrostatic pressure.

How To Order						
Sample Part Number	802-013	-00	Z1	9-200	P	A
Series	802-013 = Hermetic Receptacle					
Shell Style (See Table I)	-00 = Jam-Nut, Front Panel Mount		-03 = Weld Mount			
	-02 = Square Flange, Front Panel Mount		-07 = Jam-Nut, Rear Panel Mount			
Shell Material and Finish	Z1 = Stainless Steel / Passivated					
	ZL = Stainless Steel / Nickel Plated					
Shell Size - Insert Arrangement	See Contact Arrangements page F-3 See Section B for PCB Footprints					
Contact Type	P = Pin, PC Tail		D = Socket, PC Tail			
	E = Pin, Solder Cup		S = Socket, Solder Cup			
Polarization (See Table II)	A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F					

NOTES

- Contacts are non-removable, PCB and solder cup type
- Mates to 802 series plugs with same size, arrangement, polarization, and opposite contact gender.
- Performance capabilities:
 - Hydrostatic pressure rating: 1000 PSI open face or 3500 PSI fully mated and properly molded
 - Insulation resistance: 5,000 megohms minimum
 - DWV: per Table III
 - Hermeticity: 1×10^{-7} cc/sec @ 1 ATM
- Parker O-ring compound V709-90 or equivalent
- 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

Table I: Shell Style			
-00 Jam-Nut, Front Panel Mount	-02 Square Flange, Front Panel Mount	-03 Weld 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	9°	210°

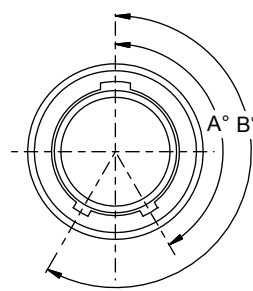
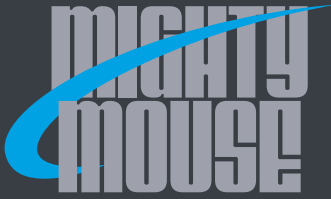


Table III: DWV Rating	
Contact Sizes	Test Voltage
23	750 VAC
20HD	1000 VAC
16, 12, 8	1800 VAC

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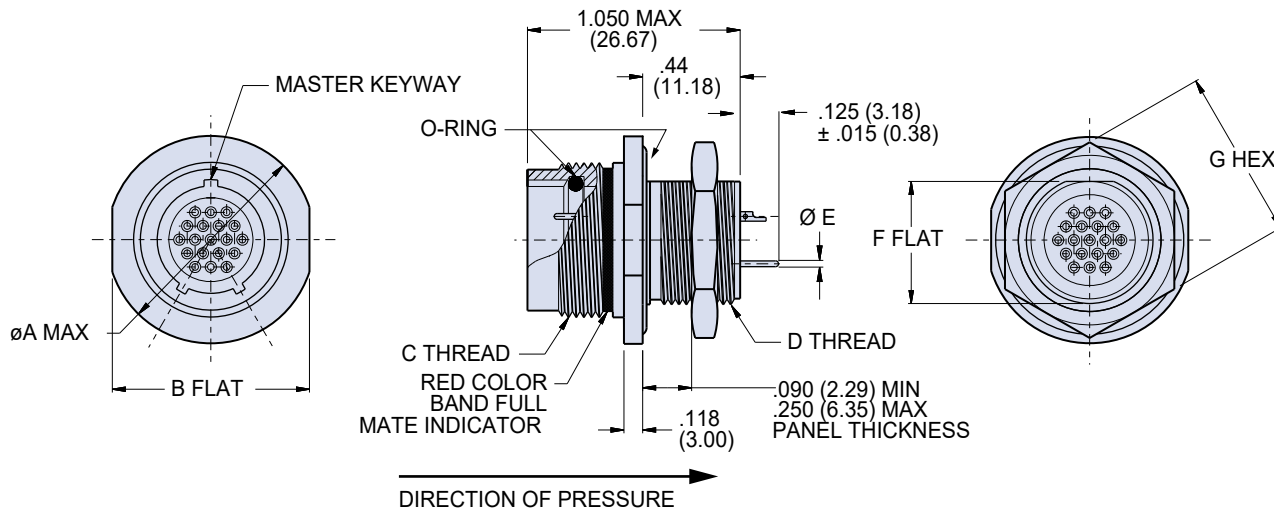


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Hermetic PCB Receptacles, 1000 PSI Open Face Rated with PC Tails or Solder Cups

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



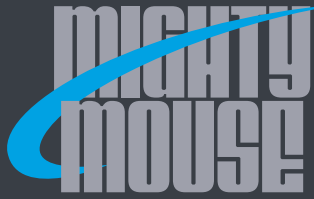
Dimensions								
Shell Size	Ø A Max.	B Flat	C Threads	D Threads	Ø E Tail Dia.	F Flat	G Hex	
5	.72 (18.29)	.625 (15.88)	.4375-28 UNEF-2A	.312-28 UN-2A	#23 .018/.022 (0.46/0.56)	.281 (7.14)	.500 (12.70)	
6	.78 (19.81)	.750 (19.05)	.5625-20 UN-2A	.438-28 UN-2A		#20	.406 (10.31)	.625 (15.88)
7	.91 (23.11)	.812 (20.62)	.6250-20 UN-2A	.500-32 UN-2A		.024/.028 (0.61/0.71)	.469 (11.91)	.688 (17.48)
8	.96 (24.38)	.875 (22.23)	.6875-20 UN-2A	.562-28 UN-2A	#16 .060/.064 (1.52/1.63)	.531 (13.49)	.750 (19.05)	
9	1.03 (26.16)	.937 (23.80)	.7500-20 UNEF-2A	.625-20 UN-2A		#12	.594 (15.09)	.812 (20.62)
10	1.09 (27.69)	1.000 (25.40)	.8125-20 UNEF-2A	.687-28 UN-2A	#12 .092/.096 (2.34/2.44)	.656 (16.66)	.875 (22.23)	
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF-2A	.750-28 UN-2A		.893 (22.68)	1.125 (28.58)	
14	1.34 (34.04)	1.250 (31.75)	1.0625-20 UN-2A	.938-28 UN-2A		.955 (24.26)	1.188 (30.18)	
15	1.41 (35.81)	1.312 (33.32)	1.1250-20 UN-2A	1.000-28 UN-2A		1.257 (31.93)	1.500 (38.10)	
21	1.70 (43.18)	1.562 (39.67)	1.4375-20 UN-2A	1.312-28 UN-2A				

* Tolerance applies to shell sizes 5 thru 15

Material/finish

- Shell, receptacle, jam-nut: SST / See How to Order table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact hermetic: alloy 52 / gold plate
- 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, except weld mount (03) style

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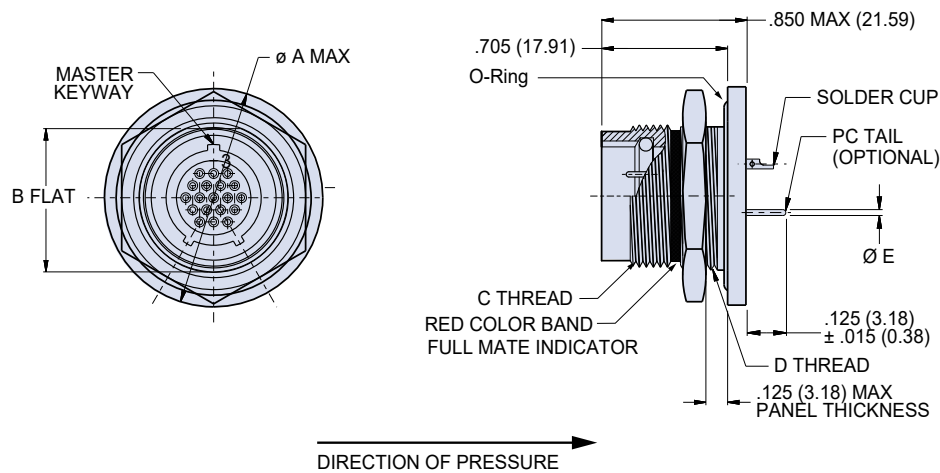


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Hermetic PCB Receptacles, 1000 PSI Open Face Rated with PC Tails or Solder Cups

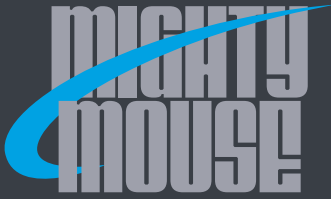
HERMETIC JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions					
Shell Size	A Max.	B Flat	C Threads	D Threads	Ø E Tail Dia.
5	.885 (22.48)	.469 (11.91) .463 (11.76)	.438-28 UNEF	.500-32 UN-2A	#23 .018/.022 (0.46/0.56)
6	1.010 (25.65)	.594 (15.09) .588 (14.94)	.562-20 UN	.625-20 UN-2A	
7	1.072 (27.23)	.656 (16.66) .650 (16.51)	.625-20 UN	.687-28 UN-2A	
8	1.135 (28.83)	.729 (18.52) .725 (18.42)	.687-20 UN	.750-28 UN-2A	
9	1.195 (30.35)	.781 (19.84) .775 (19.68)	.750-20 UNEF	.812-28 UN-2A	
10	1.260 (32.00)	.830 (21.08) .824 (20.93)	.812-20 UNEF	.875-28 UN-2A	
12	1.322 (33.58)	.893 (22.68) .887 (22.53)	.875-20 UNEF	.938-28 UN-2A	
14	1.510 (38.35)	1.080 (27.43) 1.074 (27.28)	1.062-20 UN	1.125-28 UN-2A	
15	1.572 (39.93)	1.143 (29.03) 1.137 (28.88)	1.125-20 UN	1.188-28 UN-2A	
21	1.940 (49.28)	1.467 (37.26) 1.463 (37.16)	1.4375-20 UN	1.500-28 UN-2A	

Material/finish

- Shell, receptacle, jam-nut: SST / See How to Order table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact hermetic: alloy 52 / gold plate
- 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, except weld mount (03) style

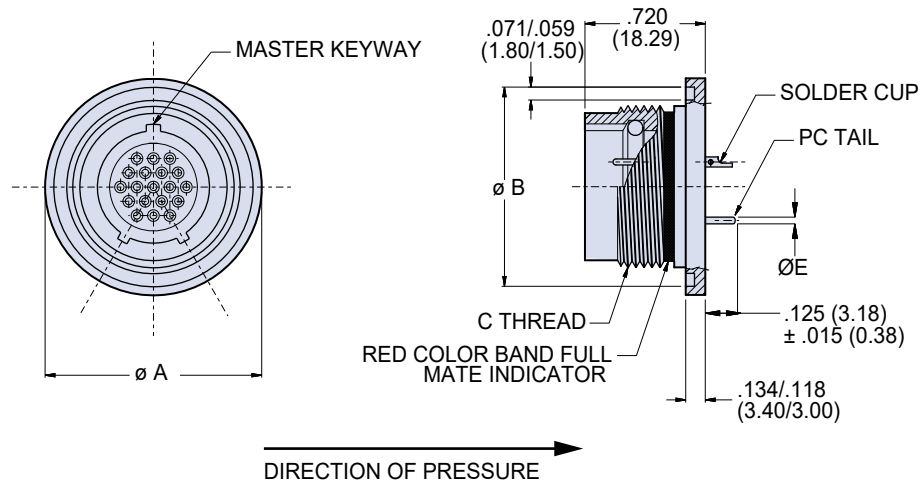


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic PCB Receptacles, 1000 PSI Open Face Rated with PC Tails or Solder Cups

HERMETIC WELD MOUNT RECEPTACLE - SHELL STYLE 03

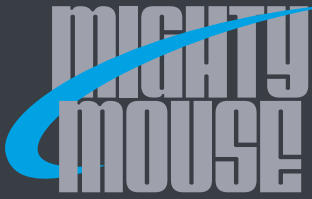


Dimensions					
Shell Size	$\varnothing A$	$\varnothing B$	C Mating Threads	$\varnothing E$ Tail Dia.	
5	.790 (20.07)	.751 (19.08)	.438-28 UNEF	#23 .018/.022 (0.46/0.56)	
	.786 (19.96)	.739 (18.77)			
6	.914 (23.22)	.875 (22.23)	.562-20 UN		
	.910 (23.11)	.863 (21.92)			
7	.977 (24.82)	.939 (23.85)	.625-20 UN		
	.973 (24.71)	.927 (23.55)			
8	1.040 (26.42)	1.001 (25.43)	.687-20 UN		
	1.036 (26.31)	.989 (25.12)			
9	1.102 (27.99)	1.063 (27.00)	.750-20 UNEF		#20 .024/.028 (0.61/0.71)
	1.098 (27.89)	1.051 (26.70)			
10	1.164 (29.57)	1.125 (28.58)	.812-20 UNEF	#16 .060/.064 (1.52/1.63)	
	1.160 (29.46)	1.113 (28.27)			
12	1.227 (31.17)	1.188 (30.18)	.875-20 UNEF	#12 .092/.096 (2.34/2.44)	
	1.223 (31.06)	1.176 (29.87)			
14	1.414 (35.92)	1.375 (34.92)	1.062-20 UN		
	1.410 (35.81)	1.363 (34.62)			
15	1.477 (37.52)	1.438 (36.53)	1.125-20 UN		
	1.473 (37.41)	1.426 (36.22)			
21	1.797 (45.64)	1.750 (44.45)	1.4375-20 UN		
	1.793 (45.54)	1.744 (44.30)			

Material/finish

- Shell, receptacle: SST / see How to Order table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact hermetic: alloy 52 / gold plate
- 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, except weld mount (03) style

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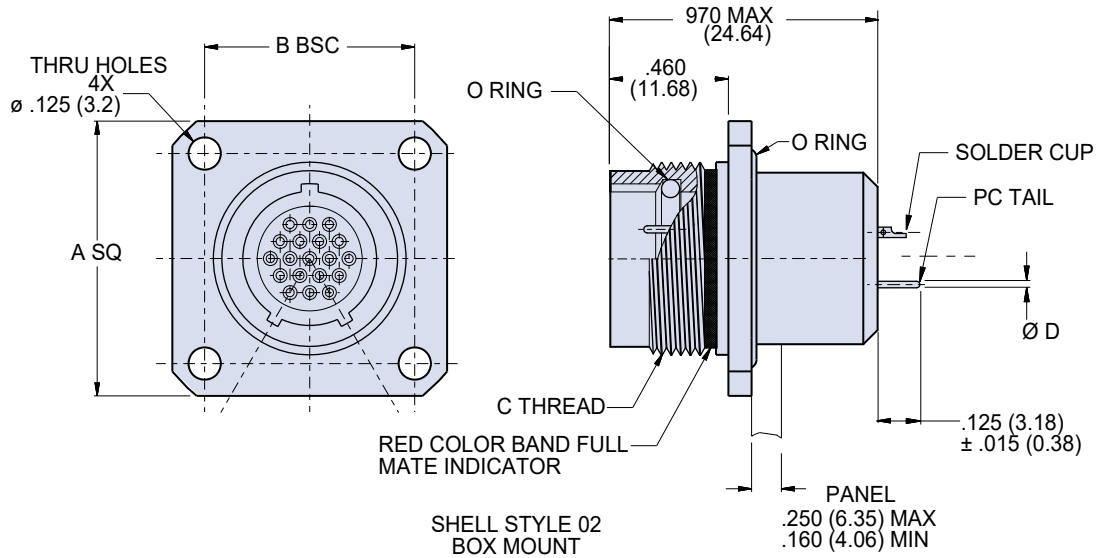


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Hermetic PCB Receptacles, 1000 PSI Open Face Rated with PC Tails or Solder Cups

HERMETIC BOX MOUNT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02



Dimensions					
Shell Size	A Square	B Bsc.	C Thread	Ø D Tail Dia.	Ø E
5	.885 (22.48)	.500 (12.70)	.438-28 UNEF	#23 .018/.022 (0.46/0.56)	.327 (8.31)
6	1.010 (25.65)	.625 (15.88)	.562-20 UN		.390 (9.91)
7	1.072 (27.23)	.688 (17.48)	.625-20 UN		.515 (13.08)
8	1.135 (28.83)	.750 (19.05)	.687-20 UN	#20 .024/.028 (0.61/0.71)	.577 (14.66)
9	1.195 (30.35)	.812 (20.62)	.750-20 UNEF		.640 (16.26)
10	1.260 (32.00)	.875 (22.23)	.812-20 UNEF	#16 .060/.064 (1.52/1.63)	.702 (17.83)
12	1.323 (33.60)	.938 (23.83)	.875-20 UNEF		.765 (19.43)
14	1.510 (38.35)	1.125 (28.58)	1.062-20 UN		.953 (24.21)
15	1.573 (39.95)	1.188 (30.18)	1.125-20 UN	#12 .092/.096 (2.34/2.44)	1.015 (25.78)
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN		1.312 (33.32)

Material/finish

- Shell, receptacle, jam-nut: SST / see How to Order table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact hermetic: alloy 52 / gold plate
- 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, except weld mount (03) style

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