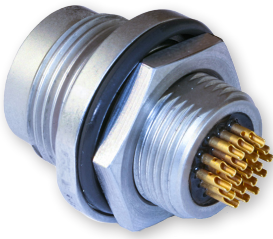




# Series 802 AquaMouse™ 3500 PSI Submersible Hermetic Receptacle with PC Tails or Solder Cups

## 802-013 Ordering Information



**Series 802 Hermetic Receptacles** rated to  $1 \times 10^{-7}$  ccHe/second maximum helium leak rate, 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 RoHS Compliant ZL = Stainless Steel / Nickel Plated					
Shell Size - Insert Arrangement	See Contact Arrangements page E-2					
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					

E

### 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:  $< 1 \times 10^{-7}$  ccHe/Se
- 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

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
20, 16, 12	1800 VAC

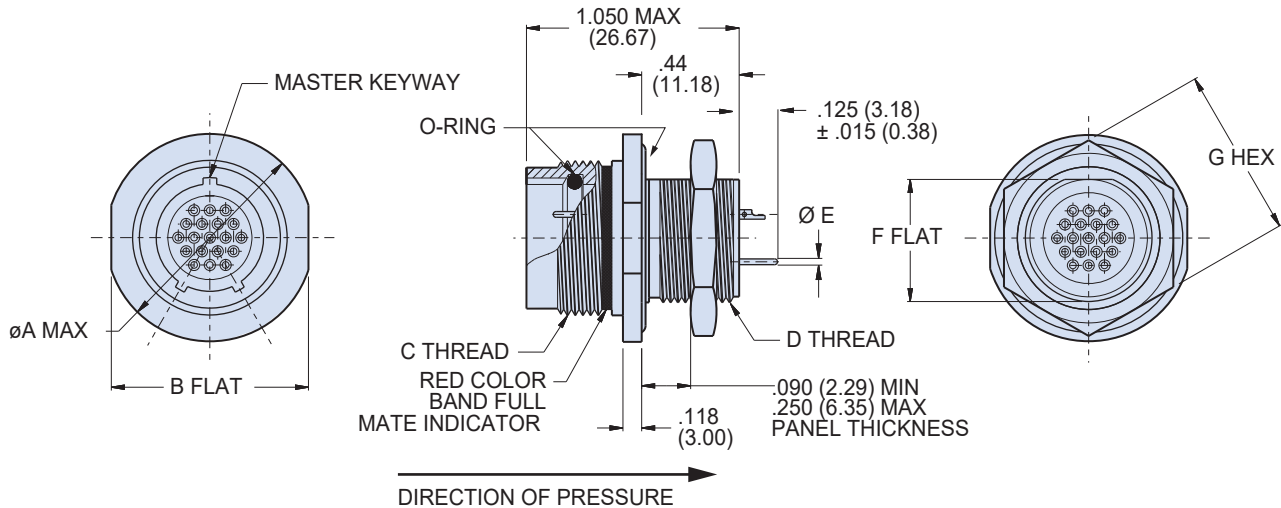
Dimensions in Inches (millimeters) are subject to change without notice.

Series 802 AquaMouse™ 3500 PSI Submersible  
Hermetic Receptacle with PC Tails or Solder Cups  
802-013-00 Dimensions



Series 802

**Hermetic jam-nut, front panel mount receptacle - shell style 00**



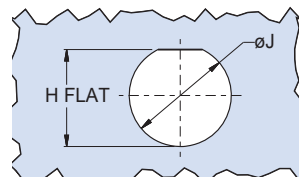
Dimensions							
Shell Size	Ø A Max.	B Flat	C Threads	D Threads	Ø E Tail Dia.	F Flat	G Hex
5	.72 (18.29)	.625 (15.88)	.4375-28 UNEF-2A	.312-28 UN-2A	#23 .018/.022 (0.46/0.56)	.281 (7.14)	.500 (12.70)
6	.78 (19.81)	.750 (19.05)	.5625-20 UN-2A	.438-28 UN-2A		.406 (10.31)	.625 (15.88)
7	.91 (23.11)	.812 (20.62)	.6250-20 UN-2A	.500-32 UN-2A	#20 .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		.531 (13.49)	.750 (19.05)
9	1.03 (26.16)	.937 (23.80)	.7500-20 UNEF-2A	.625-20 UN-2A	#16 .060/.064 (1.52/1.63)	.594 (15.09)	.812 (20.62)
10	1.09 (27.69)	1.000 (25.40)	.8125-20 UNEF-2A	.687-28 UN-2A		.656 (16.66)	.875 (22.23)
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF-2A	.750-28 UN-2A	#12 .092/.096 (2.34/2.44)	.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	.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-2A	1.257 (31.93)	1.500 (38.10)	

\*Tolerance applies to shell sizes 5 thru 15

Material/finish

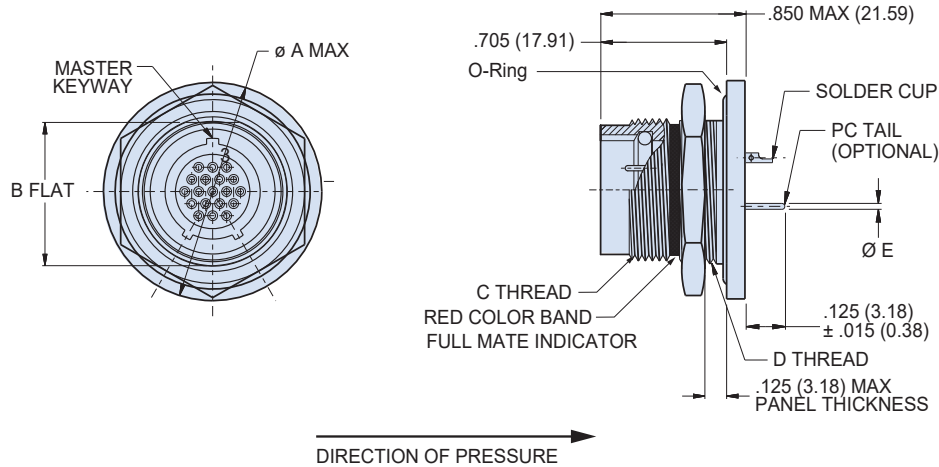
- Shell, receptacle, jam-nut: SST / See How to Order table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone
- Contact hermetic: alloy 52 / gold plate
- Contact: copper alloy / gold plate per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton 90 shore / N.A.
- Potting: epoxy, except weld mount (03) style

Jam-Nut, Front Panel Mount Panel Cutout Dimensions			
Shell Size	H Flat +.005 (.13) -.000 (-.00)	Ø J	
5	.286 (7.26)	.322 (8.18)	
6	.412 (10.46)	.448 (11.38)	
7	.474 (12.04)	.510 (12.95)	
8	.536 (13.61)	.572 (14.53)	
9	.599 (15.21)	.635 (16.13)	
10	.661 (16.79)	.697 (17.70)	
12	.724 (18.39)	.760 (19.30)	
14	.898 (22.81)	.948 (24.08)	
15	.960 (24.38)	1.010 (25.65)	
19	1.091 (27.71)	1.135 (28.83)	
21	1.263 (32.08)	1.322 (33.58)	



Dimensions in Inches (millimeters) are subject to change without notice.

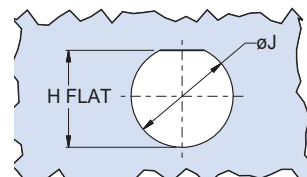
### Hermetic jam-nut, rear panel mount receptacle - shell style 07



E

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	
					#16 .060/.064 (1.52/1.63)
					#12 .092/.096 (2.34/2.44)

### Jam-Nut, Rear Panel Mount Panel Cutout Dimensions



Shell Size	H Flat	Ø J
	+.004 (.10) -.000 (-.00)	+.005 (.13) -.000 (-.00)
5	.471 (11.96)	.505 (12.83)
6	.601 (15.27)	.630 (16.00)
7	.660 (16.76)	.693 (17.60)
8	.712 (18.08)	.755 (19.18)
9	.783 (19.89)	.817 (20.75)
10	.833 (21.16)	.880 (22.35)
12	.897 (22.78)	.943 (23.95)
14	1.083 (27.51)	1.130 (28.70)
15	1.153 (29.29)	1.193 (30.30)

#### 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

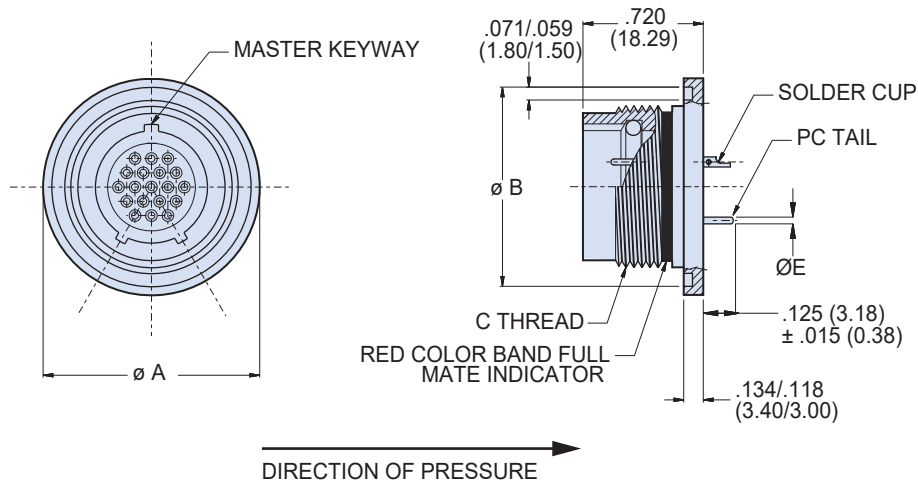
Dimensions in Inches (millimeters) are subject to change without notice.

Series 802 AquaMouse™ 3500 PSI Submersible  
Hermetic Receptacle with PC Tails or Solder Cups  
802-013-03 Dimensions



Series 802

**Hermetic weld mount receptacle - shell style 03**



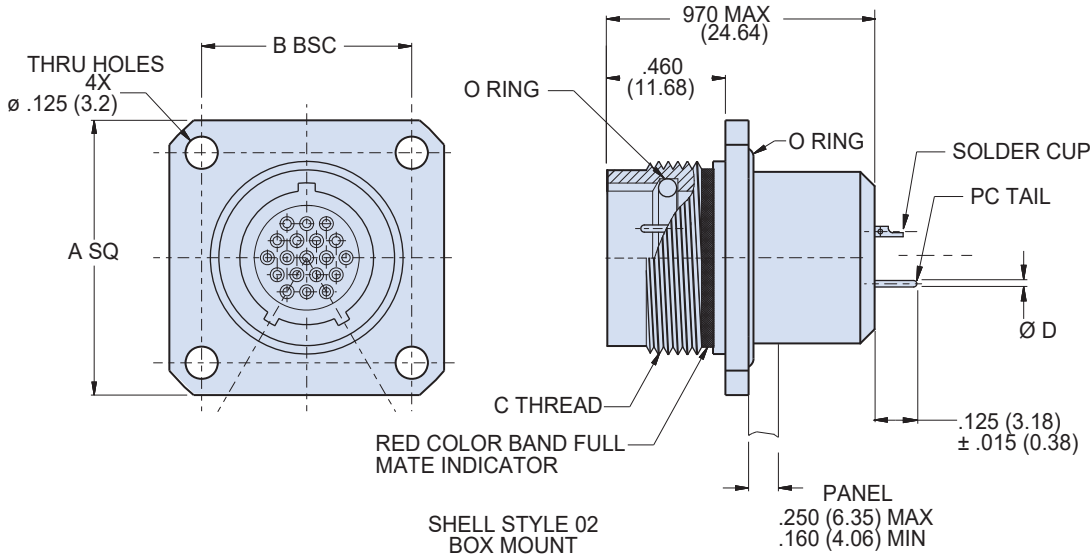
Dimensions				
Shell Size	Ø A	Ø B	C Mating Threads	Ø E Tail Dia.
5	.790 (20.07)	.751 (19.08)	.438-28 UNEF	<b>#23</b> .018/.022 (0.46/0.56)  <b>#20</b> .024/.028 (0.61/0.71)  <b>#16</b> .060/.064 (1.52/1.63)  <b>#12</b> .092/.096 (2.34/2.44)
	.786 (19.96)	.739 (18.77)		
6	.914 (23.22)	.875 (22.23)	.562-20 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	
	1.098 (27.89)	1.051 (26.70)		
10	1.164 (29.57)	1.125 (28.58)	.812-20 UNEF	
	1.160 (29.46)	1.113 (28.27)		
12	1.227 (31.17)	1.188 (30.18)	.875-20 UNEF	
	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

Dimensions in Inches (millimeters) are subject to change without notice.

### Hermetic box mount, front panel mount receptacle - shell style 02



SHELL STYLE 02  
BOX MOUNT

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	#12 .092/.096 (2.34/2.44)	.953 (24.21)
15	1.573 (39.95)	1.188 (30.18)	1.125-20 UN		1.015 (25.78)
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN		1.312 (33.32)

Square Flange Panel Cutout		
	.160 (4.06) MIN - REF	
	.045 (1.14) MIN	
	Ø E	
	B BSC	
	#4-40 UNC 4-BLIND HOLES	
Shell Size	B BSC	Ø E
5	.500 (12.70)	.327 (8.31)
6	.625 (15.88)	.390 (9.91)
7	.688 (17.48)	.515 (13.08)
8	.750 (19.05)	.577 (14.66)
9	.812 (20.62)	.640 (16.26)
10	.875 (22.23)	.702 (17.83)
12	.938 (23.83)	.765 (19.43)
14	1.125 (28.58)	.953 (24.21)
15	1.188 (30.18)	1.015 (25.78)
21	1.375 (34.92)	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

Dimensions in Inches (millimeters) are subject to change without notice.