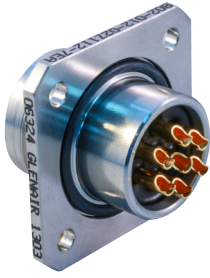




Series 802 AquaMouse™ 3500 PSI Submersible Receptacle with PC Tails or Solder Cups 802-012 and 802-030 Ordering Information



Environmental, PCB Receptacle 802-012 connectors feature low profile shells for minimum protrusion inside enclosures and integral board standoffs. Contacts are non-removable. 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 maintain a helium leak rate of less than 1×10^{-4} cc/second at one atmosphere pressure differential. 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 | <p>802-012 = Receptacle for Solder Cup or PCB Termination, with Standard Epoxy Potting</p> <p>802-030 = Receptacle for Solder Cup or PCB Termination, with Special "MOD-518" Sealing for Open Face (Unmated) Water Immersion Requirements. 100% Leak Tested.</p> | | | | | |
| Shell Style (See Table I) | <p>-00 = Jam-Nut, Front Panel Mount</p> <p>-02 = Square Flange, Front Panel Mount</p> <p>-07 = Jam-Nut, Rear Panel Mount</p> | | | | | |
| Shell Material and Finish | <p>Z1 = Stainless Steel / Passivated RoHS Compliant</p> <p>ZM = Stainless Steel/Electroless Nickel Plated</p> <p>AB = Marine Bronze/Unplated</p> | | | | | |
| Shell Size - Insert Arrangement | See Contact Arrangements page E-2 See Section B for PCB Footprints | | | | | |
| Contact Type | <p>P = Pin, PC Tail E = Pin, Solder Cup</p> <p>S = Socket, PC Tail F = Socket, Solder Cup</p> | | | | | |
| Polarization (See Table II) | A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F | | | | | |

NOTES

1. Contacts are PCB and solder type
2. Mates to 802 series receptacle
3. 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
4. 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 | -07 Jam-Nut, Rear Panel Mount |

Table II: Shell Keyway Positions

| Position | A° | B° |
|-------------------|------|------|
| A (Normal) | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |

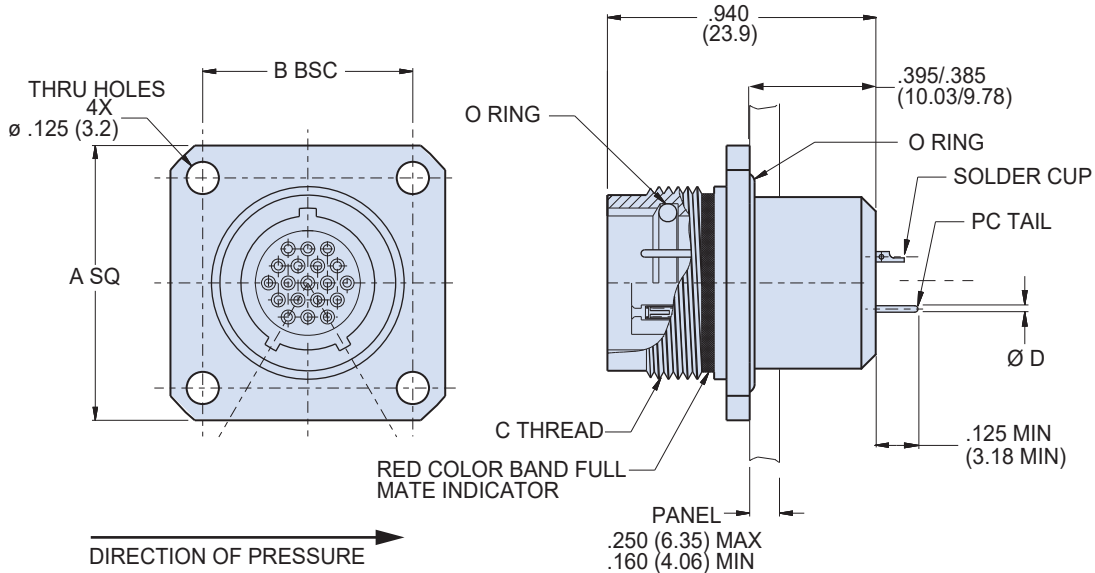
Dimensions in Inches (millimeters) are subject to change without notice.

Series 802 AquaMouse™ 3500 PSI Submersible
 Receptacle with PC Tails or Solder Cups
 802-012-02 and 802-030-02 Dimensions



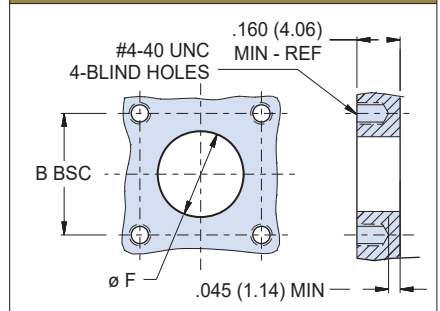
Series 802

Square flange, front panel mount receptacle - shell style 02



| Dimensions | | | | | |
|------------|---------------|---------------|------------------|-----------------------|---------------|
| Shell Size | A Square | B BSC | C Mating Threads | ϕ D Tail Dia. | ϕ 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 | .024/.028 (0.61/0.71) | .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 | .060/.064 (1.52/1.63) | .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 | .092/.096 (2.34/2.44) | .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 | | 1.015 (25.78) |
| 21 | 1.750 (44.45) | 1.375 (34.92) | 1.4375-20 UN | | 1.312 (33.32) |

Series 802 Square Flange Front Panel Mount, Panel Cutout



| Shell size | B BSC | ϕ F |
|------------|---------------|---------------|
| 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: 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

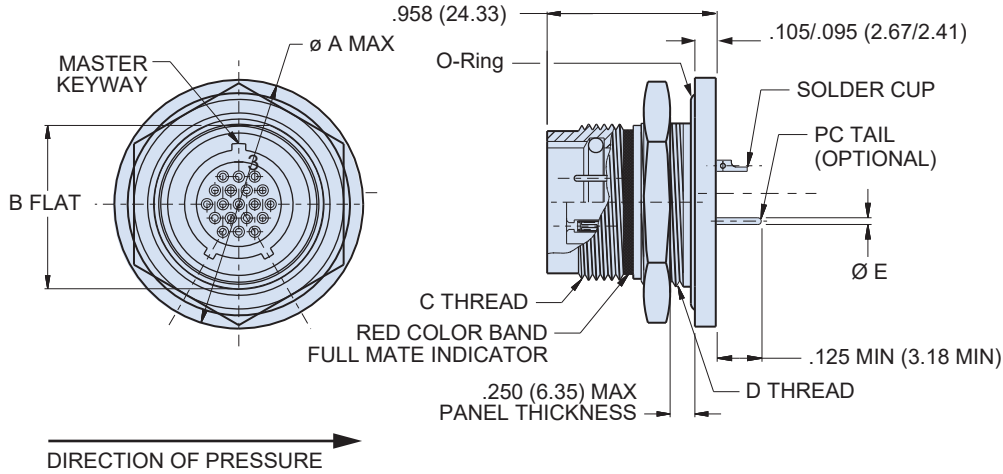
Dimensions in Inches (millimeters) are subject to change without notice.



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

802-012-07 and 802-030-07 Dimensions

Jam-nut, rear panel mount receptacle - shell style 07



| Dimensions | | | | | | | |
|------------|---------------|--------------------------------|------------------|-----------------|---------------|-----------------------|---------------|
| Shell Size | Ø A Max. | B Flat ± .003 (±0.08) | C Mating Threads | D Threads | Ø E Tail Dia. | F Flat ± .003 (±0.08) | Ø G |
| 5 | .885 (22.48) | .466 (11.84) | .4375-28 UNEF | .5000-32 UN-2A | #23 | .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 | #20 | .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 | #16 | .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 | #12 | .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 | #12 | 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) |

E

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

| Jam-Nut, Rear Panel Mount Panel Cutout Dimensions | | |
|---|-----------------------------------|---------------|
| Shell Size | F Flat +.005 (+.13) -0.000 (-.00) | Ø G |
| 5 | .474 (12.04) | .510 (12.95) |
| 6 | .599 (15.21) | .635 (16.13) |
| 7 | .661 (16.79) | .697 (17.70) |
| 8 | .724 (18.39) | .760 (19.30) |
| 9 | .786 (19.96) | .822 (20.88) |
| 10 | .835 (21.21) | .885 (22.48) |
| 12 | .898 (22.81) | .948 (24.08) |
| 14 | 1.085 (27.56) | 1.135 (28.83) |
| 15 | 1.148 (29.16) | 1.198 (30.43) |
| 19 | 1.357 (34.47) | 1.385 (35.18) |
| 21 | 1.471 (37.36) | 1.510 (38.35) |

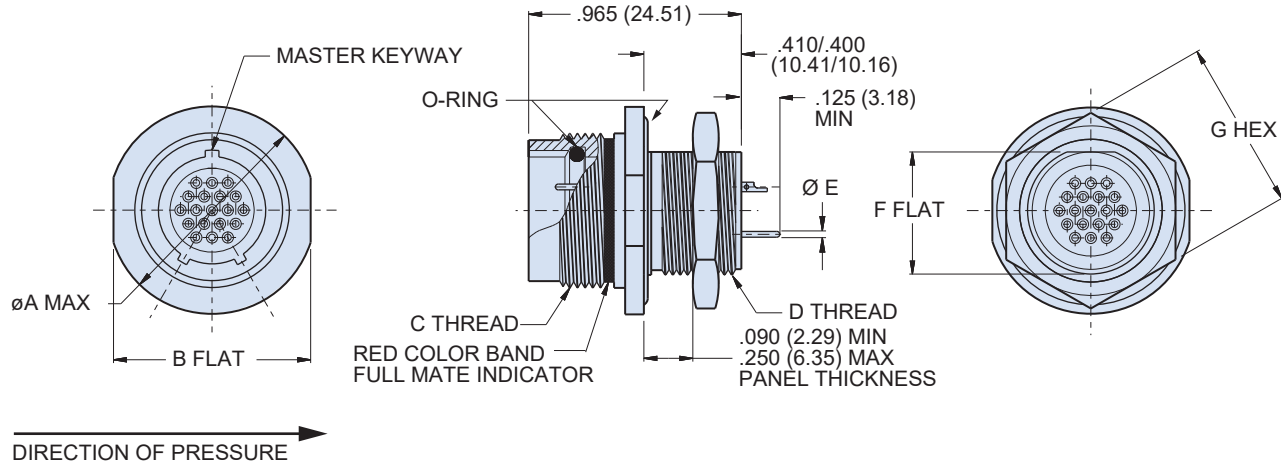
Dimensions in Inches (millimeters) are subject to change without notice.

Series 802 AquaMouse™ 3500 PSI Submersible
Receptacle with PC Tails or Solder Cups
802-012-00 and 802-030-00 Dimensions



Series 802

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 | #12 .092/.096 (2.34/2.44) | .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 | | 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

| 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.