



SERIES 802 AquaMouse™

Glenair Series 802 AquaMouse™ Delivers High-Pressure Sealing and Rugged Design in a Miniature Package

Originally developed for petroleum pipeline inspection equipment, Series 802 connectors withstand exposure to corrosive environments and high pressure. These connectors feature high density crimp Mighty Mouse inserts, 316 stainless steel, or marine bronze shells and a “piston” O-ring for hydrostatic sealing. Gold-plated contacts accept #12-30 AWG wire. Printed circuit board receptacles are available, along with hermetic receptacles.

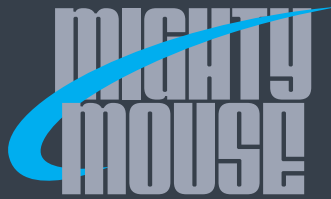
Available in ten sizes from 1 to 130 contacts, Series 802 connectors feature 316 stainless steel or marine bronze shells. Viton® O-rings resist high temperature and corrosive chemicals. Connectors withstand up to 3500 PSI hydrostatic pressure in a mated condition. Hermetic versions withstand 1000 PSI open face pressure and are rated to 1×10^{-7} ccHe per second. For hermetic applications with higher leak rate requirements add modification code **-585**. See Mod Code table for specifications.



Hermetic Leak Rate Mod Codes	
Designator	Required Leak Rate
-585A	1×10^{-10} cc Helium per second
-585B	1×10^{-9} cc Helium per second
-585C	1×10^{-8} cc Helium per second

Materials and Finishes	
Shells, Jam-nuts	316 SST, 304L SST or marine bronze
Coupling Nuts	Marine bronze, unplated
Contacts	Copper alloy, 50 µlnch gold plated, socket hood: stainless steel, passivated. Hermetic pin contacts: Nickel-Iron alloy per ASTM-F-30, 50 µlnch gold plated.
Insulators	High grade rigid dielectric
Contact Retention Clip	Beryllium copper alloy
Interfacial Seal, O-rings	Viton Rubber
Interfacial seal, rear grommet	Fluorosilicone rubber, blue
O-rings	Viton®

Specifications	
Current Rating	#23–5 A, #20–7.5 A, #16–13 A, #12–23 A
Dielectric Withstanding Voltage	#23–750 VAC, #20HD–1000VAC, #16 and #12–1800 VAC
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +175° C.
Hydrostatic Pressure	3500 PSI mated. 1000 PSI open face rated (hermetic)
Shock	300 g.
Vibration	37 g.
Durability	2000 mating cycles

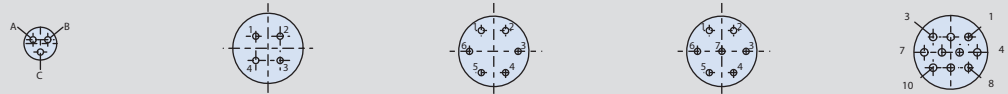


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

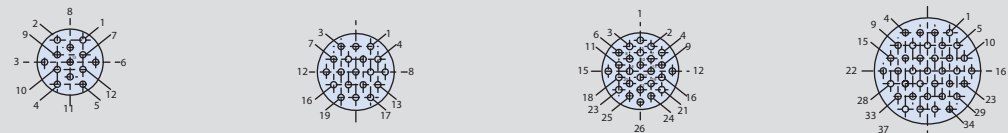


Contact Arrangements Mating Face of Pin Insert Shown

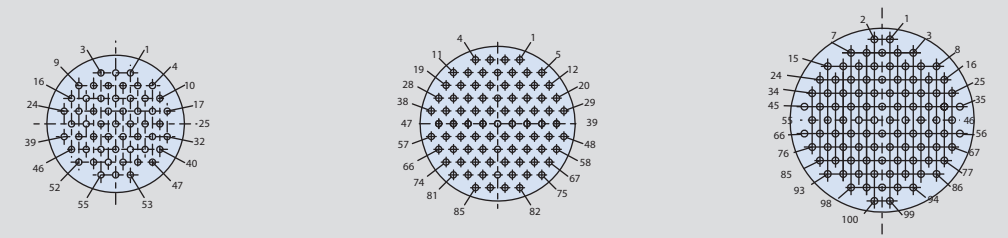
SIZE #23 CONTACTS, TESTED AT 750 VAC



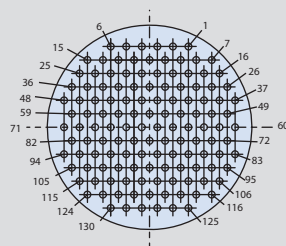
Insert Arrangement	5-3	6-4	6-6	6-7	7-10
No. of Contacts	3	4	6	7	10



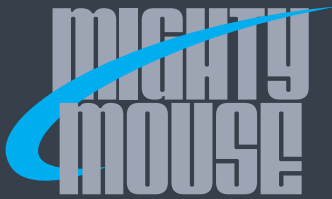
Insert Arrangement	8-13	9-19	10-26	12-37
No. of Contacts	13	19	26	37



Insert Arrangement	14-55	15-85	19-100
No. of Contacts	55	85	100



Insert Arrangement	21-130
No. of Contacts	130

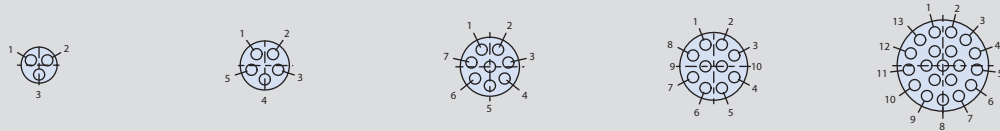


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

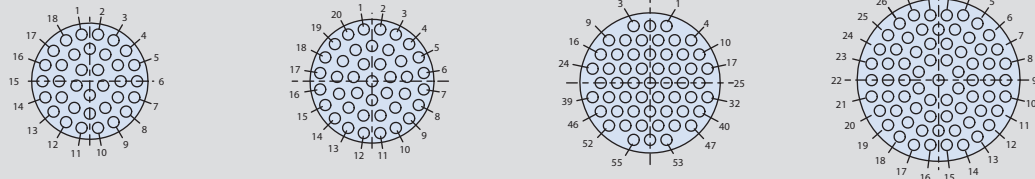


Contact Arrangements Mating Face of Pin Insert Shown

SIZE #20HD CONTACTS, TESTED AT 1000 VAC

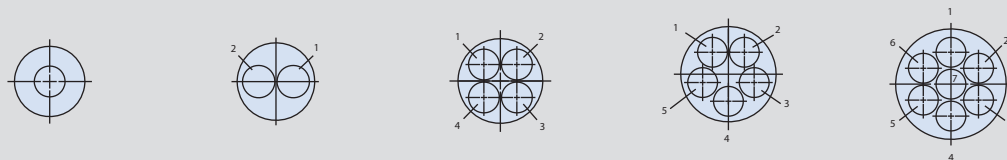


Insert Arrangement	6-23	7-25	8-28	9-210	12-220
No. of Contacts	3	5	8	10	20

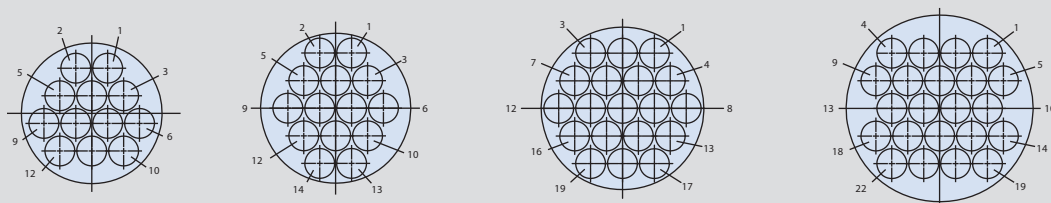


Insert Arrangement	14-235	15-241	19-255	21-269
No. of Contacts	35	41	55	69

SIZE #16 CONTACTS, TESTED AT 1800 VAC



Insert Arrangement	6-1	8-2	9-4	10-5	12-7
No. of Contacts	1	2	4	5	7



Insert Arrangement	14-12	15-14	19-19	21-22
No. of Contacts	12	14	19	22

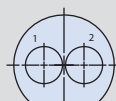
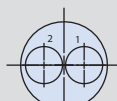


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

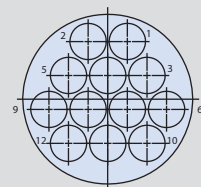
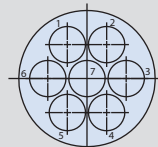
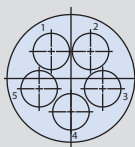
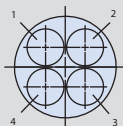


Standard Contact Arrangements Mating Face of Pin Insert Shown

SIZE #12 CONTACTS, TESTED AT 1800 VAC

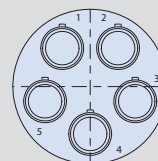
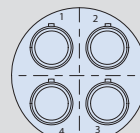
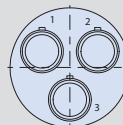
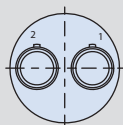


Insert Arrangement	7-1	10-2	12-2	12-3
No. of Contacts	1	2	2	3

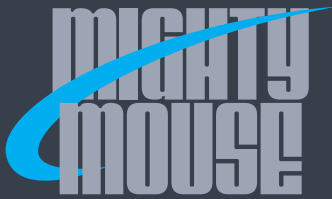


Insert Arrangement	14-4	14-5	15-7	21-12
No. of Contacts	4	5	7	12

SIZE #8 CONTACT ARRANGEMENTS, TESTED AT 1800 VAC



Insert Arrangement	8-1	14-2	15-3	19-4	21-5
Metal Insert Arrangement	8G1	14G2	15G3	19G4	21G5
No. of Contacts	1	2	3	4	5

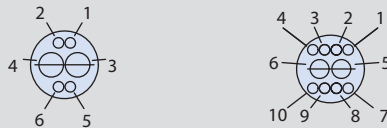


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



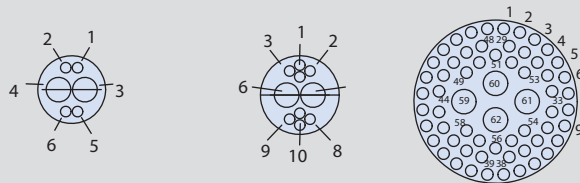
Combo Contact Arrangements Mating Face of Pin Insert Shown

SIZE #20 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 750 VAC



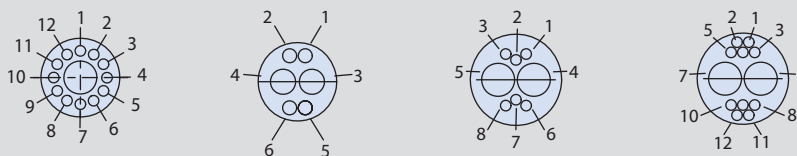
Insert Arrangement	8-200		9-201	
Contact Size	#20	#23	#20	#23
No. of Contacts	2	4	2	8

SIZE #16 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 750 VAC

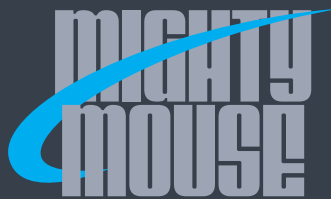


Insert Arrangement	9-200		10-202		15-206	
Contact Size	#16	#23	#16	#23	#16	#23
No. of Contacts	2	4	2	8	4	58

SIZE #12 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 750 VAC



Insert Arrangement	10-200		10-201		12-200		12-201	
Contact Size	#12	#23	#12	#23	#12	#23	#12	#23
No. of Contacts	1	12	2	4	2	6	2	10

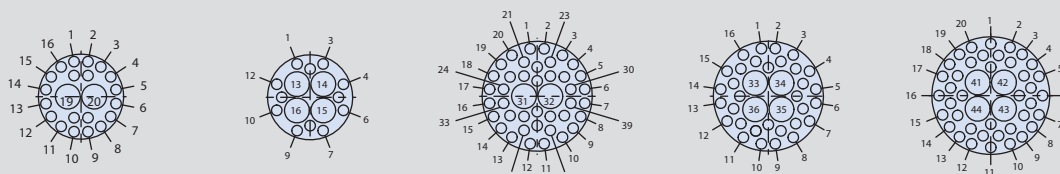


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



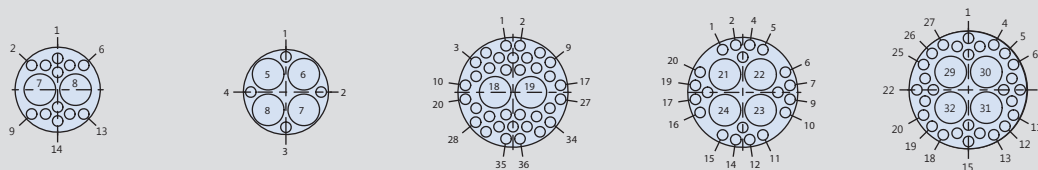
Combo Contact Arrangements Mating Face of Pin Insert Shown

SIZE #16 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 1300 VAC



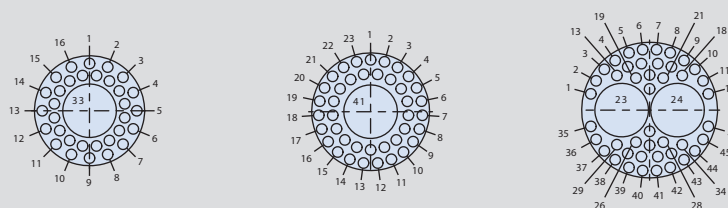
Insert Arrangement	12-202		12-203		14-204		14-205		15-203	
Contact Size	#16	#23	#16	#23	#16	#23	#16	#23	#16	#23
No. of Contacts	2	20	4	12	2	40	4	32	4	40

SIZE #12 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 1300 VAC

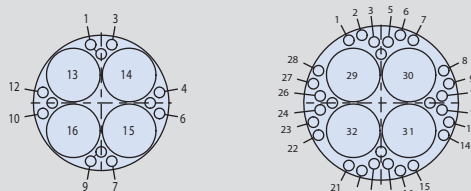


Insert Arrangement	12-204		12-205		14-206		14-207		15-204	
Contact Size	#12	#23	#12	#23	#12	#23	#12	#23	#12	#23
No. of Contacts	2	12	4	4	2	34	4	20	4	28

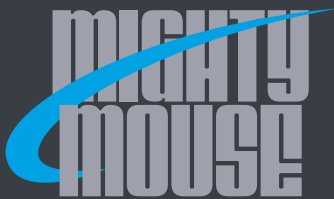
SIZE #8 AND SIZE #23, COMBO CONTACT ARRANGEMENTS, TESTED AT 1300 VAC



Insert Arrangement	14-208		15-205		19-201	
Contact Size	#8	#23	#8	#23	#8	#23
No. of Contacts	1	32	1	40	2	44



Insert Arrangement	19-202		21-200	
Contact Size	#8	#23	#8	#23
No. of Contacts	4	12	4	28

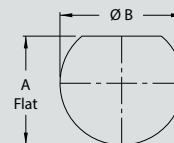
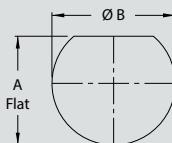
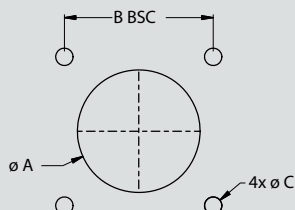


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

Panel Mount Dimensions



PANEL CUT-OUT DIMENSIONS



Flange Mount Connectors			
Shell Size	Ø A	B BSC	Ø C
5	.332 (8.43)	.500 (12.70)	.125 (3.18)
6	.389 (9.88)	.625 (15.88)	.125 (3.18)
7	.515 (13.08)	.688 (17.48)	.125 (3.18)
8	.567 (14.40)	.7450 (18.92)	.125 (3.18)
9	.639 (16.23)	.812 (20.62)	.125 (3.18)
10	.694 (17.63)	.875 (22.23)	.125 (3.18)
12	.770 (19.56)	.938 (23.83)	.125 (3.18)
14	.9415 (23.91)	1.125 (28.58)	.125 (3.18)
15	1.020 (25.91)	1.188 (30.18)	.125 (3.18)

Rear Panel Mount Connectors		
Shell Size	A Flat	Ø B
5	.475 (12.07) .471 (11.96)	.510 (12.95) .505 (12.83)
6	.605 (15.37) .601 (15.27)	.635 (16.13) .630 (16.00)
7	.664 (16.87) .660 (16.76)	.698 (17.73) .693 (17.60)
8	.737 (18.72) .733 (18.62)	.760 (19.30) .755 (19.18)
9	.786 (19.96) .782 (19.86)	.822 (20.88) .817 (20.75)
10	.837 (21.26) .833 (21.16)	.885 (22.48) .880 (22.35)
12	.901 (22.89) .897 (22.78)	.948 (24.08) .943 (23.95)
14	1.087 (27.61) 1.083 (27.51)	1.135 (28.83) 1.130 (28.70)
15	1.157 (29.39) 1.153 (29.29)	1.198 (30.43) 1.193 (30.30)

Front Panel Mount Connectors		
Shell Size	A Flat	Ø B
5	.299 (7.59) .295 (7.49)	.322 (8.18) .317 (8.05)
6	.416 (10.57) .412 (10.46)	.448 (11.38) .443 (11.25)
7	.479 (12.17) .475 (12.07)	.510 (12.95) .505 (12.83)
8	.541 (13.74) .537 (13.64)	.572 (14.53) .567 (14.40)
9	.604 (15.34) .600 (15.24)	.635 (16.13) .630 (16.00)
10	.660 (16.76) .656 (16.66)	.698 (17.73) .693 (17.60)
12	.728 (18.49) .724 (18.39)	.760 (19.30) .755 (19.18)
14	.903 (22.94) .899 (22.83)	.948 (24.08) .943 (23.95)
15	.965 (24.51) .961 (24.41)	1.010 (25.65) 1.005 (25.53)

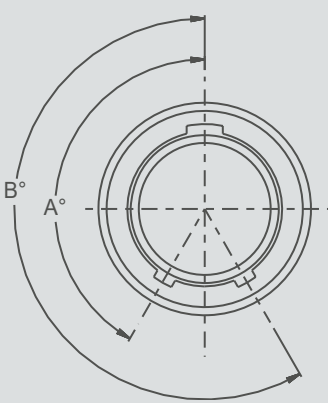


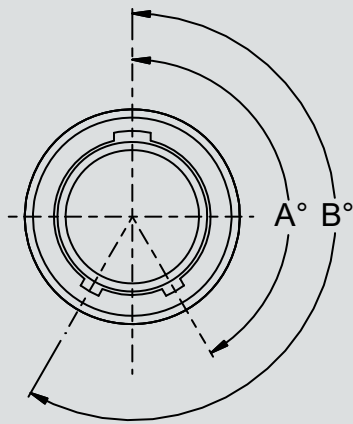
SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

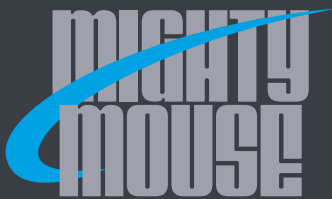


Key and Keyway Positions

POLARIZATIONS AND PANEL MOUNT DIMENSIONS

Series 802 Plug 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°

Series 802 Receptacle Keyway 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°



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Plug with Integral Banding Porch or Accessory Threads and Crimp Removable Contacts



Stainless Steel or **Marine Bronze Shell** withstands corrosion in the most hostile environments. Rated for 3500 PSI when mated, these connectors are suitable for the most demanding geophysical and underwater applications.

Gold-Plated Contacts attach to wire with standard mil spec crimp tools. Contacts are packaged with connectors.

Two Series: Integral platform for direct shield attachment using Band-Master™ ATS termination system, or accessory thread for attaching accessories.

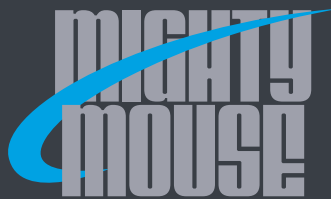
How To Order						
Sample Part Number		802-009	-06	Z1	9-19	S A
Series (See Table I)	802-008 = Plug with Band and Molding Platform 802-009 = Plug with Accessory Thread					
Shell Style	-06 = Plug					
Shell Material and Finish	Z1 = Stainless Steel / Passivated ZM = Stainless Steel / Electroless Nickel Plated AB = Marine Bronze					
Shell Size - Insert Arrangement	See Contact Arrangements page F-3					
Contact Type	Connector supplied with contacts P = Pin S = Socket Connectors with contacts are supplied with crimp contacts. Contacts not installed. For coaxial contacts order contacts separately and request connector without contacts		Connector supplied without contacts A = Pin Connector, less contacts B = Socket Connector, less contacts			
Polarization (See Table II)	A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F					

Table I: Connector Series	
802-008 Hex Plug with Banding or Molding Platform	802-009 Hex Plug with Accessory Thread

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 crimp type, and are used in a rear release retention system Crimp Barrel accommodates 22, 24, 26, and 28 gage wire
- Crimp tool data:
 - Crimp frame: M22520/2-01
 - Positioner: Glenair part no. 809-005
 - Insertion tool: Glenair P/N 809-088
 - Extraction tool: Glenair P/N 809-088
- 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
- Material/finish
 - Plug Barrel: SST / see How to Order table
 - Coupling nut: nickel-aluminum-bronze/ degrease
 - Insulator: High Grade Rigid Dielectric
 - Interfacial seal, grommet seal: fluorosilicone.
 - Contact: Copper alloy / gold plate per ASTM B 488, Type II, Code C, Class 1.25, over suitable underplate

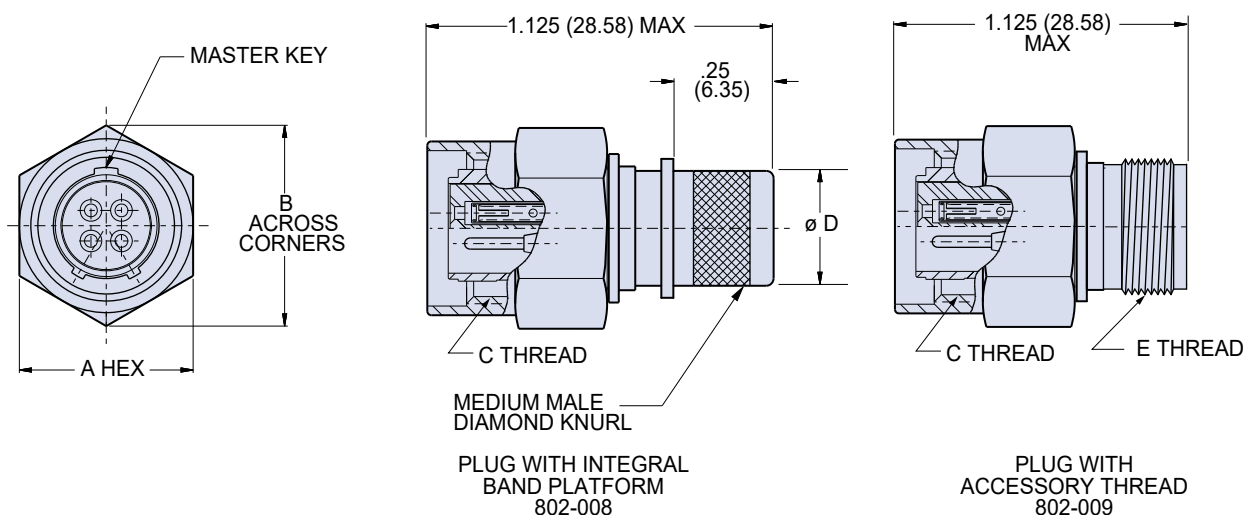


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

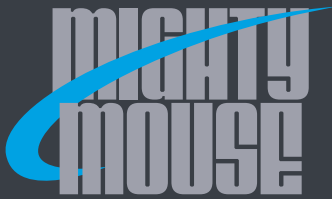


Plug with Integral Banding Porch or Accessory
Threads and Removable Crimp Contacts

PLUG CONNECTOR WITH INTEGRAL BAND PORCH OR ACCESSORY THREAD - SHELL STYLE 06



Dimensions					
Shell Size	A Hex	B.	C Thread	Ø D	E Threads Accessory
5	.500 (12.70)	.56 (14.22)	.438-28 UNEF	.232 (5.89)	.2500-32 UNEF
6	.625 (15.88)	.72 (18.29)	.562-20 UN	.312 (7.92)	.3125-32 UNEF
7	.688 (17.48)	.78 (19.81)	.625-20 UN	.375 (9.52)	.4375-28 UNEF
8	.750 (19.05)	.86 (21.84)	.687-20 UN	.438 (11.13)	.5000-28 UNEF
9	.812 (20.62)	.93 (23.62)	.750-20 UNEF	.500 (12.70)	.5625-24 UNEF
10	.875 (22.23)	1.00 (25.40)	.812-20 UNEF	.562 (14.27)	.6250-24 UNEF
12	.938 (23.83)	1.06 (26.92)	.875-20 UNEF	.656 (16.66)	.6875-24 UNEF
14	1.125 (28.58)	1.25 (31.75)	1.062-20 UN	.812 (20.62)	.8750-20 UNEF
15	1.188 (30.18)	1.32 (33.53)	1.125-20 UN	.885 (22.48)	.9375-20 UNEF
21	1.562 (39.67)	1.70 (43.18)	1.438-20 un	1.188 (30.18)	1.250-18 UNEF



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Receptacle with Crimp Removable Contacts and Integral Banding Porch or Accessory Threads



Series 802 Receptacles feature rear release crimp contacts. Shells are machined from stainless steel in jam-nut, square flange, or in-line shell styles. Choose the integral band platform for direct attachment of a cable shield or select accessory thread option to attach backshells. Hydrostatic pressure rated for 3500 PSI when fully mated. These connectors are suitable for the shallow water applications.

How To Order						
Sample Part Number	802-011	-02	Z1	10-26	P	B
Series (See Table I)	802-010 = Receptacle with Banding Platform 802-011 = Receptacle with Accessory Thread					
Shell Style (See Table II)	-01 = In-Line -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					
Contact Type	Connector supplied with contacts P = Pin S = Socket Connectors with contacts are supplied with crimp contacts. Contacts not installed. For coaxial contacts order contacts separately and request pin/skt connector less contacts Connector supplied without contacts A = Pin Connector, less contacts B = Socket Connector, less contacts					
Polarization(See Table III)	A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F					

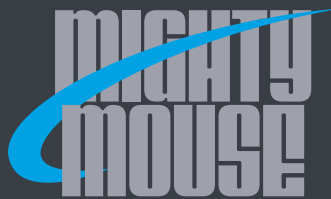
Table I: Connector Series	
802-010 Receptacle with Banding Platform	802-011 Receptacle with Accessory Thread

Table II: Shell Style		
-01 In-Line	-02 Square Flange, Front Panel Mount	-07 Jam-nut, Rear Panel Mount

Table III: Polarization		
	A°	B°
Key Position	A°	B°
A (Normal)	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°

NOTES

- Grommet protrudes for power/combo/#8 arrangements.
- Crimp contacts used in a rear release retention system
- Receptacle mates with all 802 series plug connectors with same polarization and opposite contact gender
- Hydrostatic pressure rating: 3500 PSI fully mated and properly molded
- Electrical safety limits to be set by user peak voltages, switching surges, transients etc. should be used to determine safe application
- Parker O-ring compound V709-90 or equivalent
- For all insert arrangements with size #8 contacts, add .364" to overall length
- See page F-8 for panel cut-out dimensions
- Material/finish
 - Shell: SST / see How to Order table
 - Insulator: liquid crystal polymer / N.A.
 - Interfacial seal: fluorosilicone / N.A.
 - Contact: Copper alloy / gold plate
 - O-ring: Viton 90 shore / N.A.

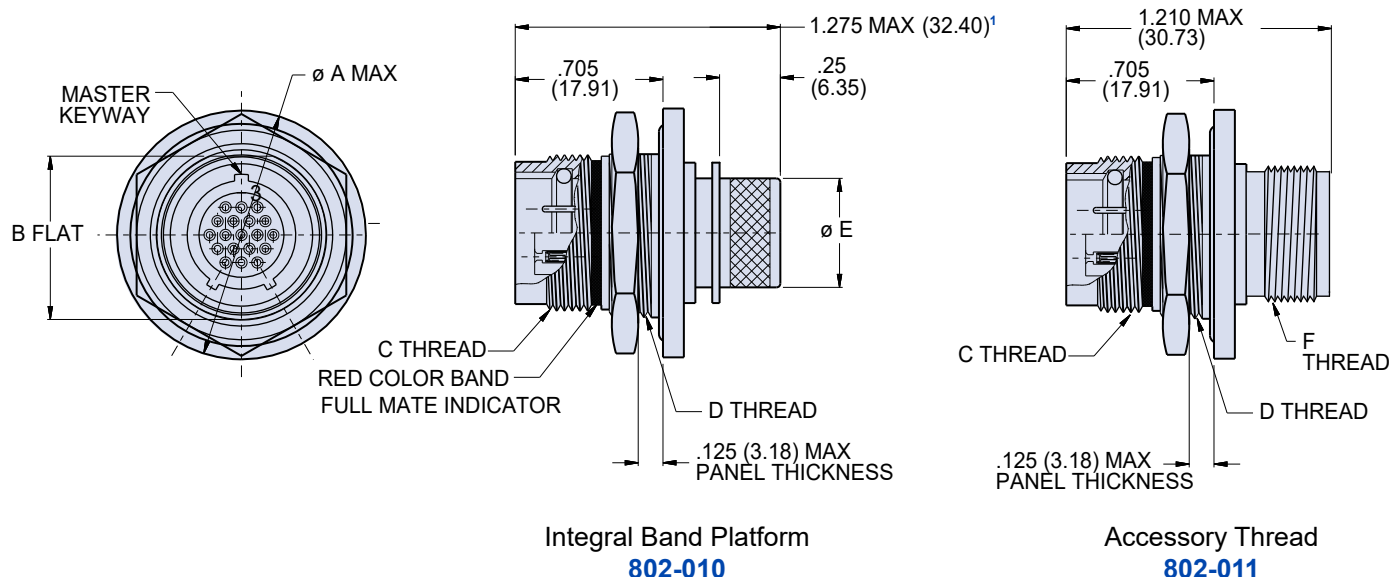


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

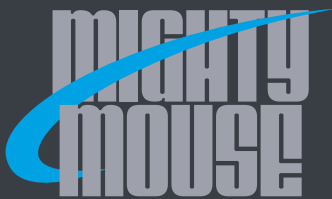


Receptacle with Crimp Removable Contacts and Integral Banding Porch or Accessory Threads

JAM-NUT, REAR PANEL MOUNT - SHELL STYLE 07



Dimensions						
Shell Size	A Max.	B Flat	C Thread	D Thread	Ø E	F Thread
5	.885 (22.48)	.469 (11.91) .463 (11.76)	.4375-28 UNEF	.5000-32 UN-2A	.232 (5.89)	.2500-32 UNEF-2A
6	1.010 (25.65)	.594 (15.09) .588 (14.94)	.5625-20 UN	.6250-28 UN-2A	.312 (7.92)	.3125-32 UNEF-2A
7	1.072 (27.23)	.656 (16.66) .650 (16.51)	.6250-20 UN	.6875-28 UN-2A	.375 (9.52)	.4375-28 UNEF-2A
8	1.135 (28.83)	.729 (18.52) .725 (18.42)	.6875-20 UN	.7500-28 UN-2A	.438 (11.13)	.5000-28 UNEF-2A
9	1.195 (30.35)	.781 (19.84) .775 (19.68)	.7500-20 UNEF	.8125-28 UN-2A	.500 (12.70)	.5625-24 UNEF-2A
10	1.260 (32.00)	.830 (21.08) .824 (20.93)	.8125-20 UNEF	.8750-28 UN-2A	.562 (14.27)	.6250-24 UNEF-2A
12	1.322 (33.58)	.893 (22.68) .887 (22.53)	.8750-20 UNEF	.9375-28 UN-2A	.656 (16.66)	.6875-24 UNEF-2A
14	1.510 (38.35)	1.080 (27.43) 1.074 (27.28)	1.0625-20 UN	1.1250-28 UN-2A	.812 (20.62)	.8750-20 UNEF-2A
15	1.572 (39.93)	1.143 (29.03) 1.137 (28.88)	1.1250-20 UN	1.1875-28 UN-2A	.885 (22.48)	.9375-20 UNEF-2A
21	1.940 (49.28)	1.467 (37.26) 1.463 (37.16)	1.4375-20 UN	1.5000-28 UN-2A	1.188 (30.18)	1.2500-20 UNEF-2A

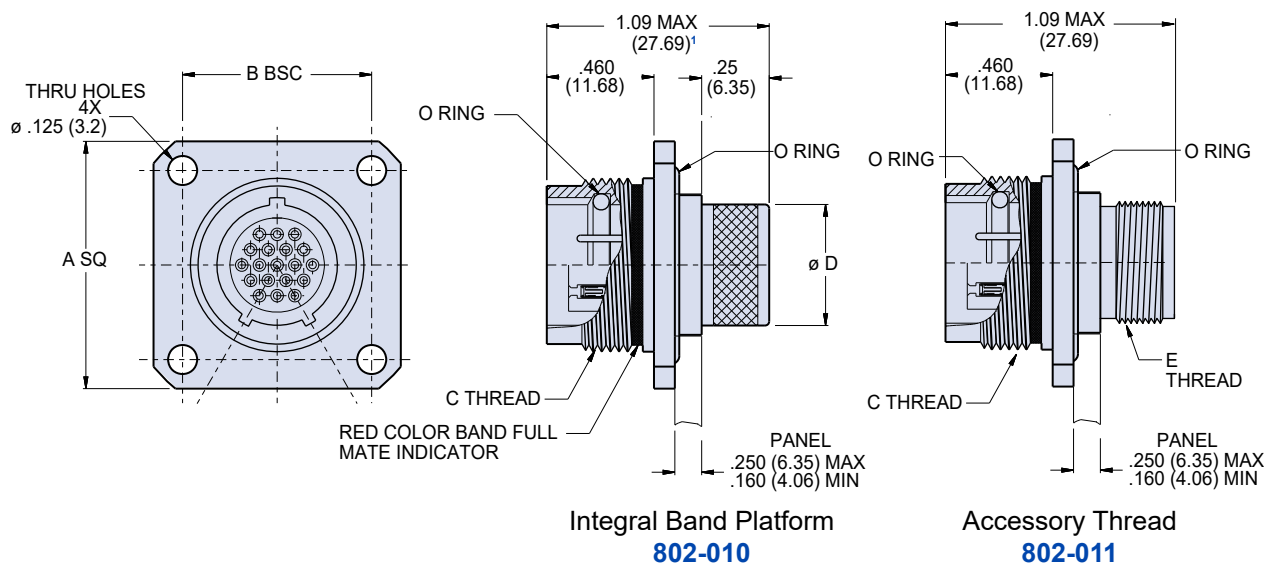


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



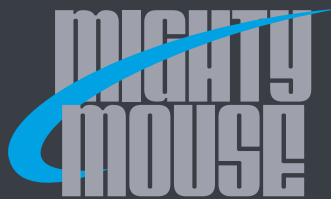
Receptacle with Crimp Removable Contacts and Integral Banding Porch or Accessory Threads

SQUARE FLANGE, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02



Dimensions						
Shell Size	A Square	B Bsc.	C Mating Threads	Ø D	E Accessory Threads	Ø F
5	.885 (22.48)	.500 (12.70)	.4375-28 UNEF	.232 (5.89)	.250-32 UNEF-2A	.327 (8.31)
6	1.010 (25.65)	.625 (15.88)	.5625-20 UN	.312 (7.92)	.312-32 UNEF-2A	.390 (9.91)
7	1.072 (27.23)	.688 (17.48)	.6250-20 UN	.375 (9.52)	.438-28 UNEF-2A	.515 (13.08)
8	1.135 (28.83)	.750 (19.05)	.6875-20 UN	.438 (11.13)	.500-28 UNEF-2A	.577 (14.66)
9	1.195 (30.35)	.812 (20.62)	.7500-20 UNEF	.500 (12.70)	.562-24 UNEF-2A	.640 (16.26)
10	1.260 (32.00)	.875 (22.23)	.8125-20 UNEF	.562 (14.27)	.625-24 UNEF-2A	.702 (17.83)
12	1.323 (33.60)	.938 (23.83)	.8750-20 UNEF	.656 (16.66)	.688-24 UNEF-2A	.765 (19.43)
14	1.510 (38.35)	1.125 (28.58)	1.0625-20 UN	.812 (20.62)	.875-20 UNEF-2A	.953 (24.21)
15	1.573 (39.95)	1.188 (30.18)	1.1250-20 UN	.885 (22.48)	.938-20 UNEF-2A	1.015 (25.78)
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN	1.188 (30.18)	1.250-20 UNEF-2A	1.312 (33.32)

Piston O-ring replacement	
Shell size	Flange Style 02 O-ring P/N
5	2-012
6	2-014
7	2-015
8	2-016
9	2-017
10	2-018
12	2-019
14	2-022
15	2-023
21	2-028

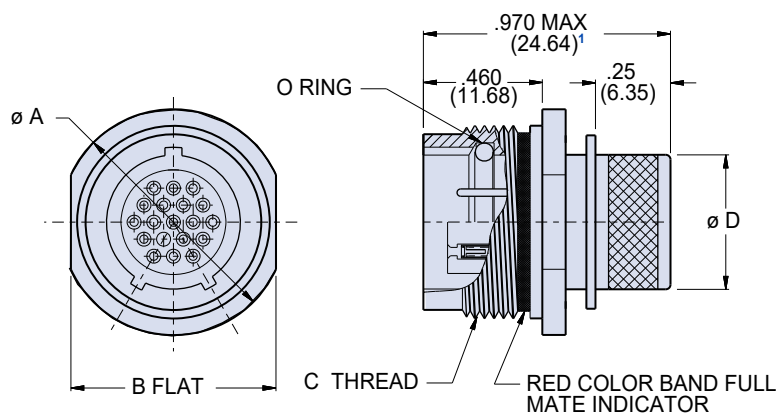


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

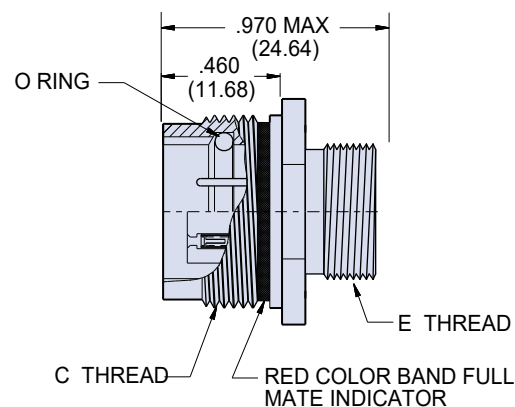


Receptacle with Crimp Removable Contacts and Integral Banding Porch or Accessory Threads

IN-LINE RECEPTACLE - SHELL STYLE 01



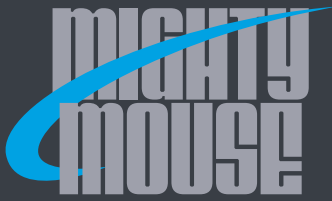
Integral Band Platform
802-010



Accessory Thread
802-011

Dimensions					
Shell Size	Ø A	B Flats	C Mating Threads	Ø D	E Accessory Threads
5	.560 (14.22)	.500 (12.70)	.4375-28 UNEF	.232 (5.89)	.250-32 UNEF-2A
6	.720 (18.29)	.625 (15.88)	.5625-20 UN	.312 (7.92)	.312-32 UNEF-2A
7	.780 (19.81)	.688 (17.48)	.6250-20 UN	.375 (9.52)	.438-28 UNEF-2A
8	.860 (21.84)	.750 (19.05)	.6875-20 UN	.438 (11.13)	.500-28 UNEF-2A
9	.930 (23.62)	.812 (20.62)	.7500-20 UNEF	.500 (12.70)	.562-24 UNEF-2A
10	1.000 (25.40)	.875 (22.23)	.8125-20 UNEF	.562 (14.27)	.625-24 UNEF-2A
12	1.060 (26.92)	.938 (23.83)	.8750-20 UNEF	.656 (16.66)	.688-24 UNEF-2A
14	1.250 (31.75)	1.125 (28.58)	1.0625-20 UN	.812 (20.62)	.875-20 UNEF-2A
15	1.320 (33.53)	1.188 (30.18)	1.1250-20 UN	.885 (22.48)	.938-20 UNEF-2A
21	1.690 (42.93)	1.562 (39.67)	1.4375-20 UN	1.188 (30.18)	1.250-20 UNEF-2A

Piston O-ring replacement	
Shell size	Piston O-ring P/N
5	2-009
6	5-052
7	5-012
8	5-212
9	2-014
10	2-015
12	2-016
14	2-019
15	2-020
21	2-023



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

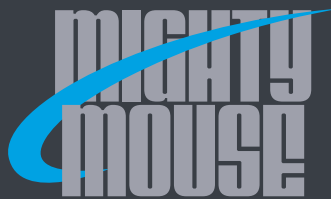
-00 Jam-Nut, Front Panel Mount	-02 Square Flange, Front Panel Mount	-07 Jam-Nut, Rear Panel Mount

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

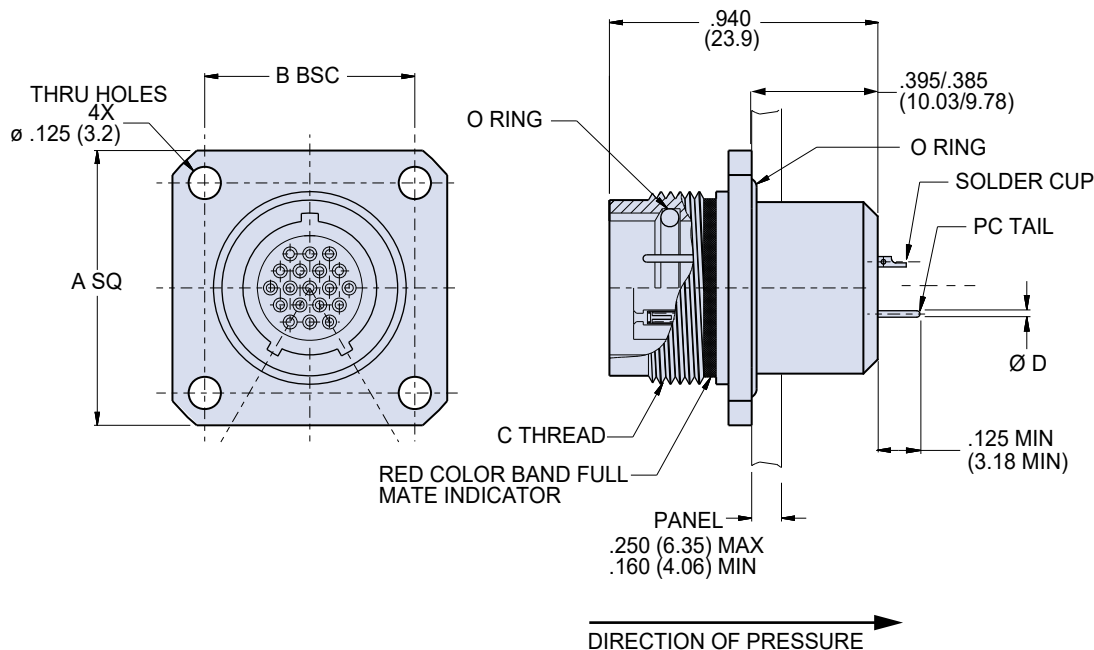


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables

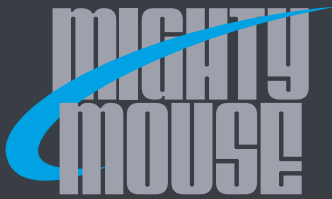


Square Flange PCB Receptacle with O-ring Sealing and PC Tail or Solder Cup Termination

SQUARE FLANGE, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02



Dimensions					
Shell Size	A Square	B BSC	C Mating Threads	Ø D Tail Dia.	Ø E
5	.885 (22.48)	.500 (12.70)	.4375-28 UNEF	#23 .018/.022 (0.46/0.56) #20	.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		.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	#16 .024/.028 (0.61/0.71)	.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	#12 .060/.064 (1.52/1.63) #10 .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)

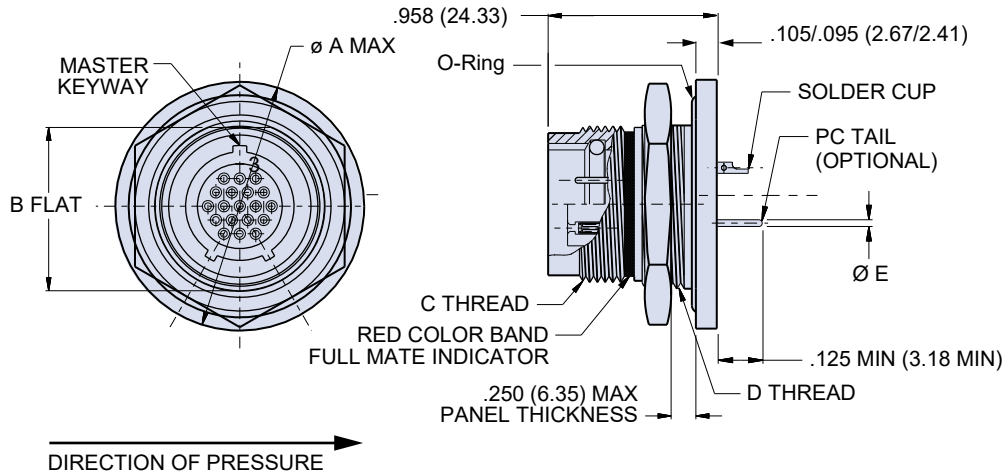


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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

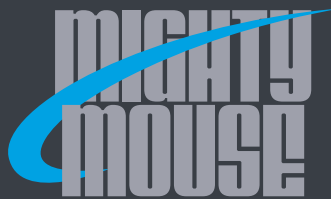
JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions							
Shell Size	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 .018/.022 (0.46/0.56) #20 .024/.028 (0.61/0.71) #16 .060/.064 (1.52/1.63) #12 .092/.096 (2.34/2.44)	.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

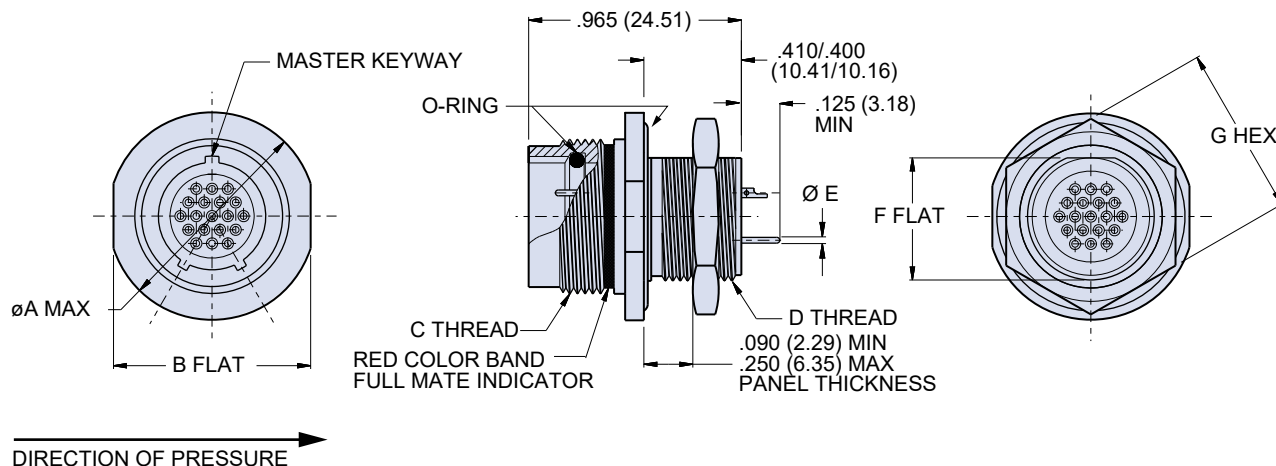


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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

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

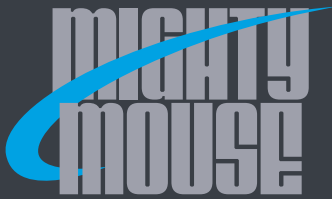


Dimensions

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		.656 (16.66)	.875 (22.23)
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF-2A	.750-28 UN-2A	#16 .060/.064 (1.52/1.63)	.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	#12 .092/.096 (2.34/2.44)	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



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with PC Tails or Solder Cups and Rear Accessory Threads



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

How To Order						
Sample Part Number	802-062	-07	Z1	6-7	P	A
Series	802-062 = Hermetic Receptacle					
Shell Style (See Table I)	-00 = Jam-Nut, Front Panel Mount -02 = Box 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					
Contact Type	P = Pin Face S = Socket Face					
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 for Front Panel Mounting	-02 Square Flange	-07 Jam-Nut for Rear Panel Mounting

NOTES

- Mates to 802 series plugs
- Performance capabilities:
 - Hydrostatic pressure rating: 1000 PSI open face, 3500 PSI fully mated and properly molded
 - Insulation resistance (test): 5,000 megohms @ 500 VDC minimum
 - Dielectric withstanding voltage (test): See Table III
 - Hermeticity: 1×10^{-7} ccHe/sec leak rate at 1 ATM
- Parker O-ring compound V709-90 or equivalent
- For insert arrangements with #8 contacts, add .364 (9.25) to overall length
- See page F-8 for panel cut-out dimensions

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°

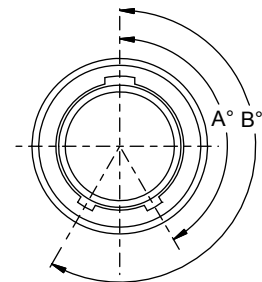
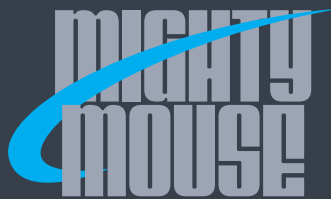


Table III: DWV Rating	
Contact Sizes	Test Voltage
23	750 VAC
20HD	1000 VAC
16, 12, 8	1800 VAC
Combo	Refer to Section B

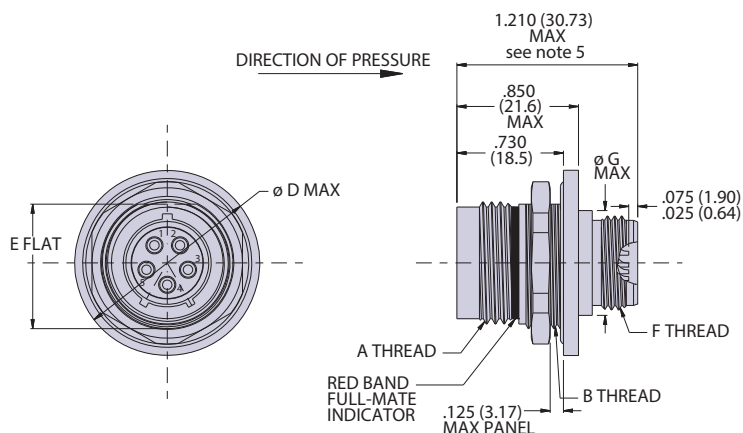


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with PC Tails or Solder Cups and Rear Accessory Threads

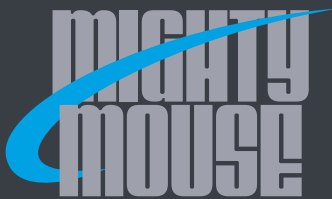
JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions									
SHELL SIZE	A THREAD	B THREAD	Ø D	E FLAT	F THREAD UNEF-2A	N FLAT	P HEX	PISTON O-RING	FLANGE O-RING STYLE 07 See Note 4
5	.4375-28 UNEF	.5000-32 UN-2A	.885 (22.48)	.469 (11.91)/ .463 (11.76)	.250-32	0.281	0.500	2-009	2-015
6	.5625-20 UN	.6250-28 UN-2A	1.010 (25.65)	.594 (15.09)/ .588 (14.94)	.312-32	0.406	0.625	5-052	2-017
7	.6250-20 UN	.6875-28 UN-2A	1.072 (27.23)	.656 (16.66)/ .650 (16.51)	.438-28	0.469	0.688	2-012	2-019
8	.6875-20 UN	.7500-28 UN-2A	1.135 (28.83)	.729 (18.52)/ .725 (18.42)	.500-28	0.531	0.750	5-212	2-019
9	.7500-20 UNEF	.8125-28 UN-2A	1.195 (30.35)	.781 (19.84)/ .775 (19.68)	.562-24	0.594	0.812	2-014	2-020
10	.8125-20 UNEF	.8750-28 UN-2A	1.260 (32.00)	.830 (21.08)/ .824 (20.93)	.625-24	0.656	0.875	2-015	2-021
12	.8750-20 UNEF	.9375-28 UN-2A	1.322 (33.58)	.893 (22.68)/ .887 (22.53)	.688-24	0.719	0.938	2-016	2-022
14	1.0625-20 UN	1.1250-28 UN-2A	1.510 (38.35)	1.080 (27.43)/ 1.074 (27.28)	.875-20	0.893	1.125	2-019	2-025
15	1.1250-20 UN	1.1875-28 UN-2A	1.572 (39.93)	1.143 (29.03)/ 1.137 (28.88)	.938-20	0.955	1.188	2-020	2-026
19	1.3125-20 UN	1.3750-20 UN	1.790 (45.47)	1.345 (34.16)/ 1.341 (34.06)	1.063-18	1.235	1.438	2-022	2-029
21	1.4375-20 UN	1.5000-28 UN	1.940 (49.28)	1.467 (37.26)/ 1.463 (37.16)	1.250-18	1.257	1.500	2-023	2-030

Material/Finish

- Shell, jam-nut: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: fluorocarbon (FKM)/none

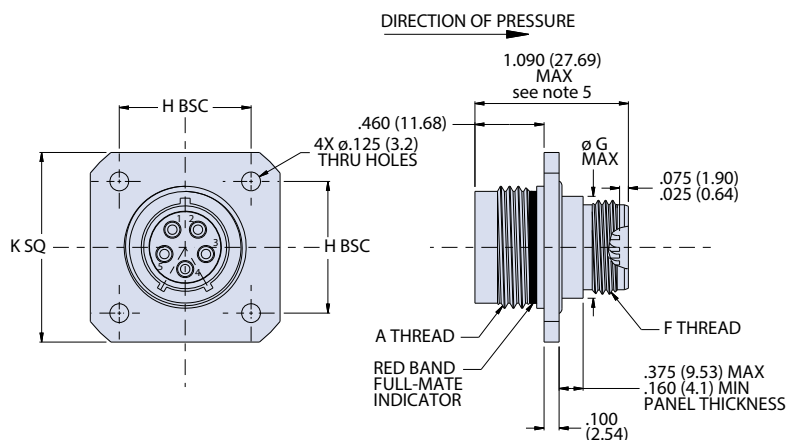


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with PC Tails or Solder Cups and Rear Accessory Threads

BOX MOUNT, RECEPTACLE - SHELL STYLE 02



Dimensions							
Shell Size	A Thread	F Thread UNEF-2A	Ø G	H Dim	K Dim	Piston O-Ring	O-Ring Style 02 See Note 4
5	.4375-28 UNEF	.250-32	0.320	0.500	0.885	2-009	2-012
6	.5625-20 UN	.312-32	0.380	0.625	1.010	5-052	2-014
7	.6250-20 UN	.438-28	0.510	0.688	1.072	2-012	2-015
8	.6875-20 UN	.500-28	0.560	0.750	1.135	5-212	2-016
9	.7500-20 UNEF	.562-24	0.635	0.812	1.195	2-014	2-017
10	.8125-20 UNEF	.625-24	0.695	0.875	1.260	2-015	2-018
12	.8750-20 UNEF	.688-24	0.755	0.938	1.323	2-016	2-019
14	1.0625-20 UN	.875-20	0.945	1.125	1.510	2-019	2-022
15	1.1250-20 UN	.938-20	1.005	1.188	1.573	2-020	2-023
19	1.3125-20 UN	1.063-18	1.185	1.250	1.625	2-022	2-027
21	1.4375-20 UN	1.250-18	1.305	1.375	1.750	2-023	2-028

Material/Finish

- Shell: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: fluorocarbon (FKM)/none

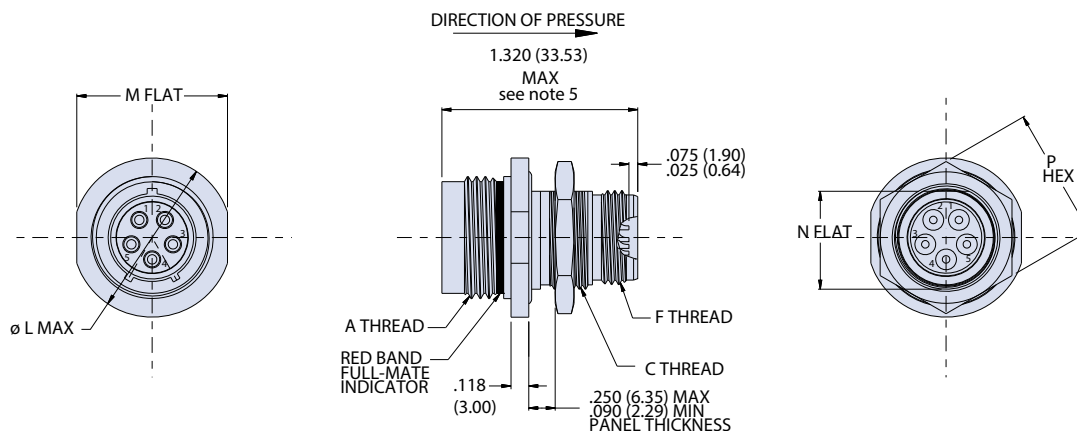


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with PC Tails or Solder Cups and Rear Accessory Threads

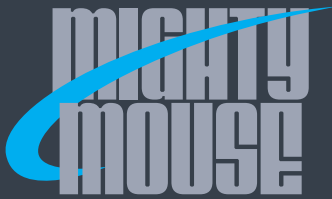
JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 00



Dimensions									
SHELL SIZE	A THREAD	C THREAD	F THREAD UNEF-2A	Ø L	M FLAT	N FLAT	P HEX	PISTON O-RING	O-RING STYLE 00 See Note 4
5	.4375-28 UNEF	.312-28 UN	.250-32	0.72	0.625	0.281	0.500	2-009	2-012
6	.5625-20 UN	.438-28 UN	.312-32	0.78	0.750	0.406	0.625	5-052	2-014
7	.6250-20 UN	.500-32 UN	.438-28	0.91	0.812	0.469	0.688	2-012	2-015
8	.6875-20 UN	.562-28 UN	.500-28	0.96	0.875	0.531	0.750	5-212	2-016
9	.7500-20 UNEF	.625-20 UN	.562-24	1.03	0.937	0.594	0.812	2-014	2-017
10	.8125-20 UNEF	.687-28 UN	.625-24	1.09	1.000	0.656	0.875	2-015	2-018
12	.8750-20 UNEF	.750-28 UN	.688-24	1.16	1.062	0.719	0.938	2-016	2-019
14	1.0625-20 UN	.938-28 UN	.875-20	1.34	1.250	0.893	1.125	2-019	2-022
15	1.1250-20 UN	1.000-28 UN	.938-20	1.41	1.312	0.955	1.188	2-020	2-023
19	1.3125-20 UN	1.250-28 UN	1.063-18	1.63	1.530	1.235	1.438	2-022	2-027
21	1.4375-20 UN	1.312-28 UN	1.250-18	1.70	1.562	1.257	1.500	2-023	2-028

Material/Finish

- Shell, jam-nut: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: fluorocarbon (FKM)/none



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with Crimp Removable Termination and Integral Banding Porch



Series 802 Hermetic Receptacles feature integral banding porch. Gold plated nickle-iron alloy contacts and compression glass dielectric material. Stainless steel connector shell with integral banding porch provides excellent corrosion protection and is suitable for e-beam welding. Viton® O-rings offer improved resistance to high temperature and harsh chemicals.

Hermetically Sealed 100% tested to meet 1×10^{-7} ccHe/sec @ 1 atm. Open face (unmated) pressure rating is 1000 PSI. When mated, Series 802 connectors withstand 3500 PSI hydrostatic pressure.

How To Order						
Sample Part Number	802-056	-07	Z1	6-7	P	A
Series	802-056 = Hermetic Receptacle					
Shell Style (See Table I)	-00 = Jam-Nut, Front Panel Mount -02 = Box 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					
Contact Type	P = Pin, Face S = Socket, Face					
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 for Front Panel Mounting	-02 Square Flange	-07 Jam-Nut for Rear Panel Mounting

Table II: Key Positions

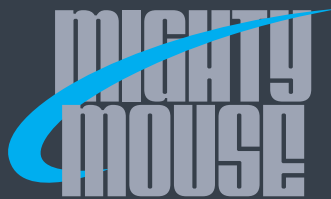
Key Position	Key Rotation	
	A°	B°
A Normal	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°

NOTES

1. Socket contacts for termination are shipped loose with parts
2. Mates to 802 series plugs
3. Performance capabilities:
 - Hydrostatic pressure rating: 1000 PSI open face, 3500 PSI fully mated and properly molded
 - Insulation resistance (test): 5,000 megohms @ 500 VDC minimum
 - Dielectric withstanding voltage (test): See Table III
 - Hermeticity: 1×10^{-7} ccHe/sec leak rate at 1 ATM
4. See page F-8 for panel cut-out dimensions

Table III: DWV Rating by Contact

23	750 VAC
20 HD	1000 VAC
16, 12, 8	1800 VAC

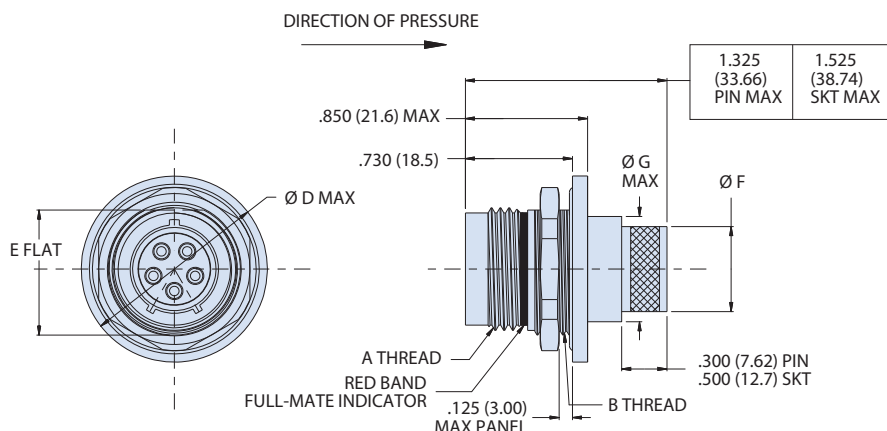


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with Crimp Removable Termination and Integral Banding Porch

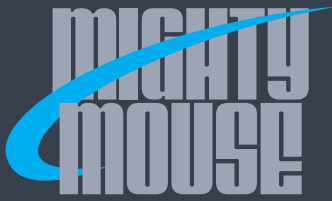
JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions								
Shell Size	A Thread	B Thread	Ø D	E Flat	Ø F	Ø G	Piston O-ring	Flange O-ring Style 07
5	.4375-28 UNEF	.5000-32 UN	0.885 (22.50)	.469/.463 (11.9/11.8)	0.232 (5.90)	0.320 (8.10)	2-009	2-015
6	.5625-20 UN	.6250-20 UN	1.010 (25.70)	.594/.588 (15.1/14.9)	0.312 (7.90)	0.380 (9.60)	5-052	2-017
7	.6250-20 UN	.6875-28 UN	1.072 (27.20)	.656/.650 (16.7/16.5)	0.375 (9.50)	0.510 (12.90)	2-012	2-019
8	.6875-20 UN	.7500-28 UN	1.135 (28.80)	.729/.725 (18.5/18.4)	0.438 (11.10)	0.560 (14.20)	5-212	2-019
9	.7500-20 UNEF	.8125-28 UN	1.195 (30.40)	.781/.775 (19.8/19.7)	0.500 (12.70)	0.635 (16.10)	2-014	2-020
10	.8125-20 UNEF	.8750-28 UN	1.260 (32.00)	.830/.824 (21.1/20.9)	0.562 (14.30)	0.695 (17.70)	2-015	2-021
12	.8750-20 UNEF	.9375-28 UN	1.322 (33.60)	.893/.887 (22.7/22.5)	0.656 (16.70)	0.755 (19.20)	2-016	2-022
14	1.0625-20 UN	1.1250-28 UN	1.510 (38.40)	1.080/1.074 (27.4/27.3)	0.812 (20.60)	0.945 (24.00)	2-019	2-025
15	1.1250-20 UN	1.1875-28 UN	1.572 (39.90)	1.143/1.137 (29.0/28.9)	0.885 (22.40)	1.005 (25.50)	2-020	2-026
19	1.3125-20 UN	1.3750-20 UN	1.790 (45.47)	1.345/1.341 (34.16/34.06)	1.003 (25.48)	1.192 (30.28)	2-022	2-029
21	1.4375-20 UN	1.5000-28 UN	1.940 (49.30)	1.467/1.463 (37.3/37.2)	1.188 (30.20)	1.305 (33.10)	2-023	2-030

Material/Finish

- Shell, jam-nut: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: Viton/ 75-90 shore

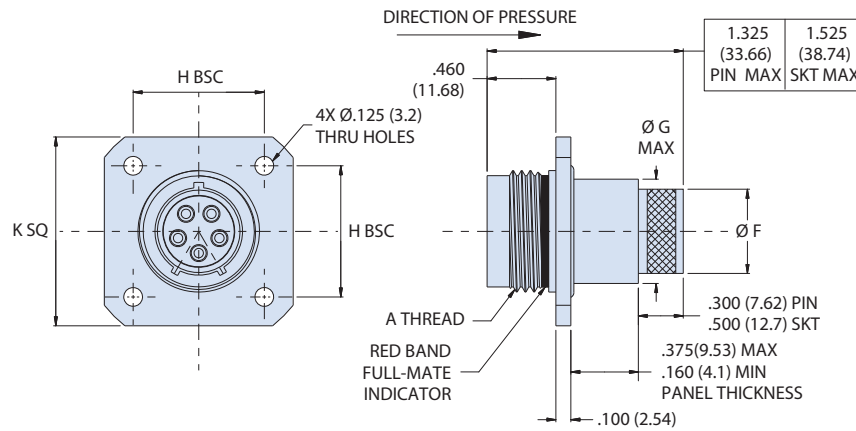


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with Crimp Removable Termination and Integral Banding Porch

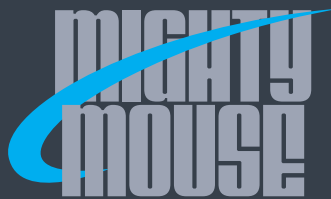
BOX MOUNT, RECEPTACLE - SHELL STYLE 02



Dimensions							
Shell Size	A Thread	Ø F	Ø G	H Dim	K Dim	Piston O-ring	Flange O-ring Style 02
5	.4375-28 UNEF	0.232 (5.90)	0.320 (8.10)	0.500 (12.70)	0.885 (22.50)	2-009	2-012
6	.5625-20 UN	0.312 (7.90)	0.380 (9.60)	0.625 (15.90)	1.010 (25.70)	5-052	2-014
7	.6250-20 UN	0.375 (9.50)	0.510 (12.90)	0.688 (17.50)	1.072 (27.20)	2-012	2-015
8	.6875-20 UN	0.438 (11.10)	0.560 (14.20)	0.750 (19.10)	1.135 (28.80)	5-212	2-016
9	.7500-20 UNEF	0.500 (12.70)	0.635 (16.10)	0.812 (20.60)	1.195 (30.40)	2-014	2-017
10	.8125-20 UNEF	0.562 (14.30)	0.695 (17.70)	0.875 (22.20)	1.260 (32.00)	2-015	2-018
12	.8750-20 UNEF	0.656 (16.70)	0.755 (19.20)	0.938 (23.80)	1.323 (33.60)	2-016	2-019
14	1.0625-20 UN	0.812 (20.60)	0.945 (24.00)	1.125 (28.60)	1.510 (38.40)	2-019	2-022
15	1.1250-20 UN	0.885 (22.40)	1.005 (25.50)	1.188 (30.20)	1.573 (40.00)	2-020	2-023
19	1.3125-20 UN	1.003 (25.48)	1.192 (30.28)	1.250 (31.75)	1.625 (41.28)	2-022	2-027
21	1.4375-20 UN	1.188 (30.20)	1.305 (33.10)	1.375 (34.90)	1.750 (44.50)	2-023	2-028

Material/Finish

- Shell: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: Viton/ 75-90 shore

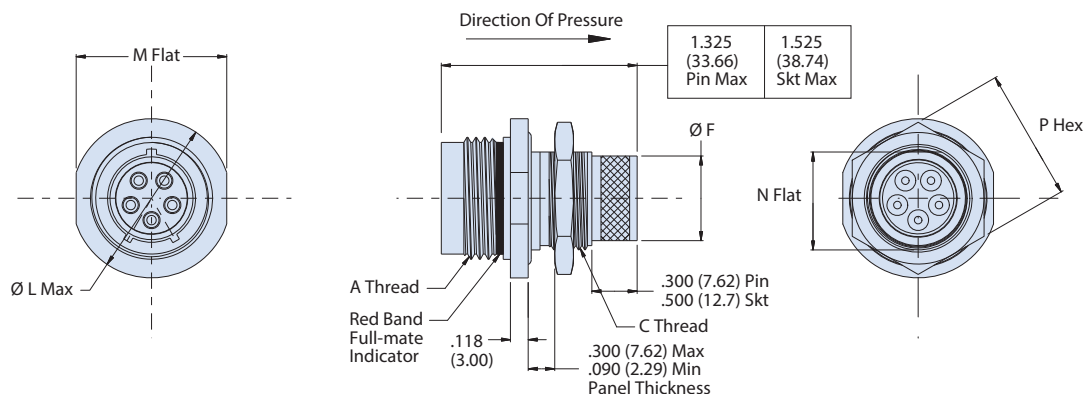


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with Crimp Removable Termination and Integral Banding Porch

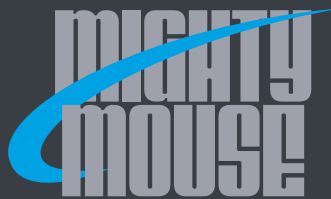
JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 00



Dimensions									
Shell Size	A Thread	C Thread	Ø F	Ø L	M Flat	N Flat	P Hex	Piston O-ring	Flange O-ring Style 00
5	.4375-28 UNEF	.312-28 UN	0.232 (5.90)	0.72 (18.30)	0.625 (15.90)	0.281 (7.10)	0.500 (12.70)	2-009	2-012
6	.5625-20 UN	.438-28 UN	0.312 (7.90)	0.78 (19.80)	0.750 (19.10)	0.406 (10.30)	0.625 (15.90)	5-052	2-014
7	.6250-20 UN	.500-32 UN	0.375 (9.50)	0.91 (23.10)	0.812 (20.60)	0.469 (11.90)	0.688 (17.50)	2-012	2-015
8	.6875-20 UN	.562-28 UN	0.438 (11.10)	0.96 (24.40)	0.875 (22.20)	0.531 (13.50)	0.750 (19.10)	5-212	2-016
9	.7500-20 UNEF	.625-20 UN	0.500 (12.70)	1.03 (26.20)	0.937 (23.80)	0.594 (15.10)	0.812 (20.60)	2-014	2-017
10	.8125-20 UNEF	.687-28 UN	0.562 (14.30)	1.09 (27.70)	1.000 (25.40)	0.656 (16.70)	0.875 (22.20)	2-015	2-018
12	.8750-20 UNEF	.750-28 UN	0.656 (16.70)	1.16 (29.50)	1.062 (27.00)	0.719 (18.30)	0.938 (23.80)	2-016	2-019
14	1.0625-20 UN	.938-28 UN	0.812 (20.60)	1.34 (34.00)	1.250 (31.80)	0.893 (22.70)	1.125 (28.60)	2-019	2-022
15	1.1250-20 UN	1.000-28 UN	0.885 (22.40)	1.41 (35.80)	1.312 (33.30)	0.955 (24.30)	1.188 (30.20)	2-020	2-023
19	1.3125-20 UN	1.250-28 UN	1.003 (25.48)	1.63 (41.40)	1.530 (38.86)	1.235 (31.37)	1.438 (36.53)	2-022	2-027
21	1.4375-20 UN	1.312-28 UN	1.188 (30.20)	1.70 (43.20)	1.562 (39.70)	1.257 (31.90)	1.500 (38.10)	2-023	2-028

Material/Finish

- Shell, jam-nut: SST / see part number development
- Insulator, hermetic: full glass
- Insulator, socket: high-grade rigid dielectric
- Seals, grommet: fluorosilicone
- Contact, hermetic: alloy 52/gold plate
- Contact, socket: copper alloy/gold plate
- O-rings: Viton/ 75-90 shore



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°

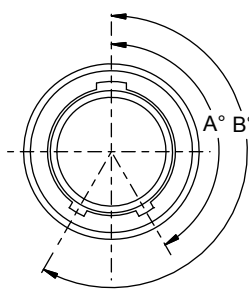
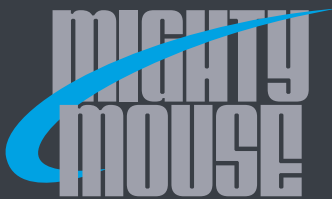


Table III: DWV Rating

Contact Sizes	Test Voltage
23	750 VAC
20HD	1000 VAC
16, 12, 8	1800 VAC

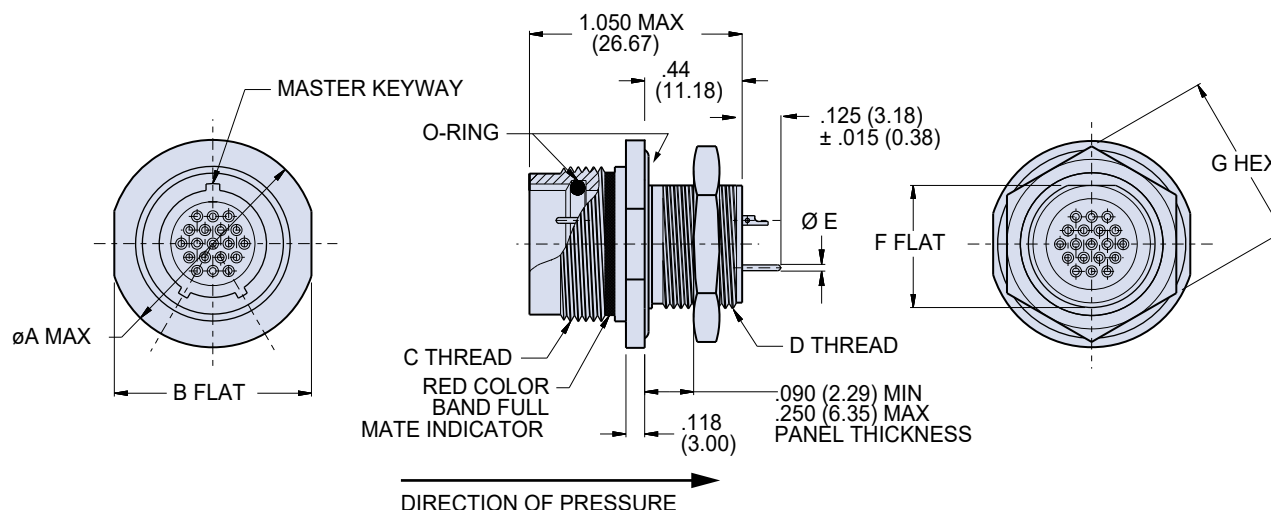


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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

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

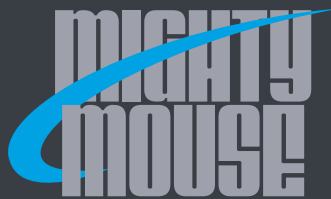


Dimensions							
Shell Size	Ø A Max.	B Flat	C Threads	D Threads	Ø E Tail Dia.	F Flat	G Hex
5	.72 (18.29)	.625 (15.88)	.4375-28 UNEF-2A	.312-28 UN-2A	#23 .018/.022 (0.46/0.56)	.281 (7.14)	.500 (12.70)
6	.78 (19.81)	.750 (19.05)	.5625-20 UN-2A	.438-28 UN-2A		.406 (10.31)	.625 (15.88)
7	.91 (23.11)	.812 (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	.625-20 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		.656 (16.66)	.875 (22.23)
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF-2A	.750-28 UN-2A	#16 .060/.064 (1.52/1.63)	.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	#12 .092/.096 (2.34/2.44)	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

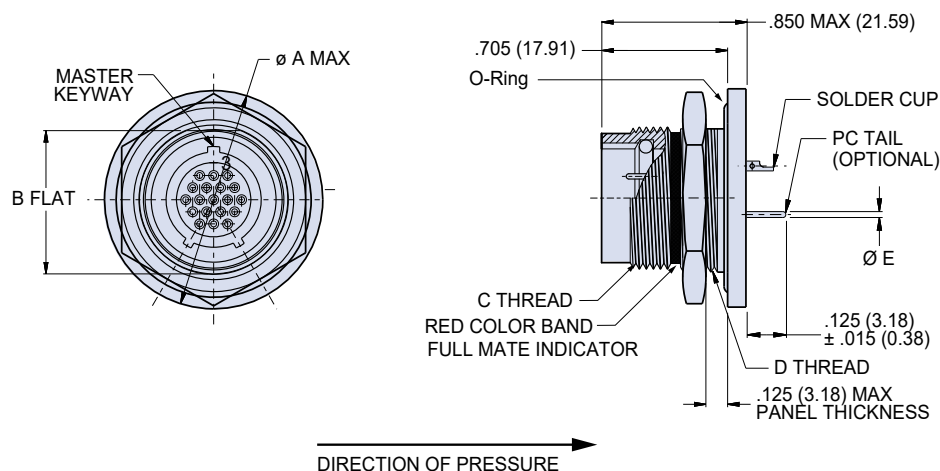


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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

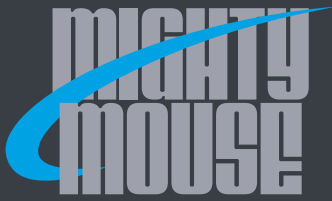
HERMETIC JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



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) #20 .024/.028 (0.61/0.71) #16 .060/.064 (1.52/1.63) #12 .092/.096 (2.34/2.44)
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

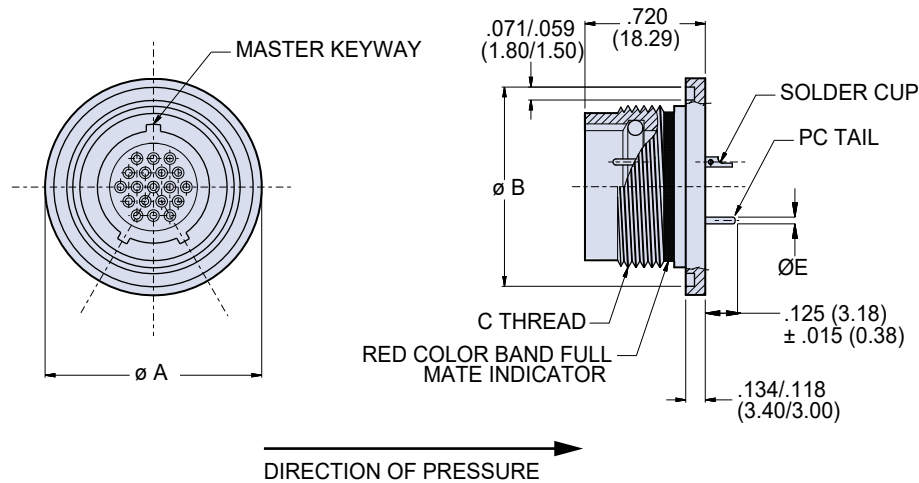


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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

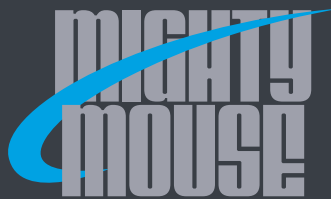
HERMETIC WELD MOUNT RECEPTACLE - SHELL STYLE 03



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

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

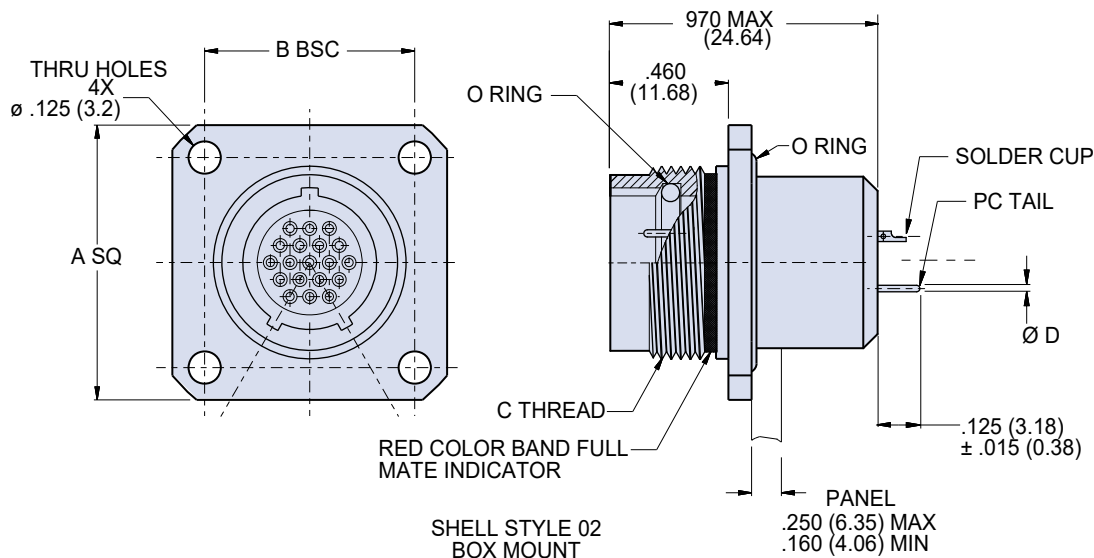


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



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		.702 (17.83)
12	1.323 (33.60)	.938 (23.83)	.875-20 UNEF	#16 .060/.064 (1.52/1.63)	.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



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

Series 802 Hermetic Receptacles feature stainless steel shells for excellent corrosion resistance, fused glass insulators and gold plated, nickel-iron alloy

contacts. 1000 PSI open face rated. 100% tested to meet 1 X 10⁻⁷ ccHe/sec @ 1 atm helium leak rate.

How to Order										
Sample Part Number	802-040	-07	Z1	14	D	-206	P	A	-75	-02
Series	802-040 = Hermetic Receptacle									
Shell Style (See Table I)	-00 = Jam-Nut, FPM -02 = Sq Flange, FPM -03 = Weld Mount -07 = Jam-Nut, RPM									
Material and Finish ⁶	Z1 = Stainless Steel / Passivated ZL = Stainless Steel / Nickel Plated									
Shell Size	See Dimensions Table for Available Sizes									
High-Speed Contact	Omit = Co-Ax D = Differential Twin-Ax* Q = Quadrax T = Conc. Twin-Ax* P = Power * = Size 8 Only									
Contact Arrangement	See Contact Arrangements page F-3									
Configuration	P = Pin Face S = Socket Face									
Polarization (Table II)	A = normal, B, C, D, E, F; (See Keyway Positions)									
Nom. Impedance	#12 & #8 Co-Ax 75 = 75 Ohm; Omit for 50 Ohm (Std) #8 Quadrax -150 = 150 Ohm; Omit for 100 Ohm (Std)									
Cable Adapter	Per Table III									

Size 12 or 16 Coax Contacts choose 9 size #16 or 8 size #12 single contact arrangements.

Four Shell Styles: front panel mount jam-nut, front panel mount square flange, weld mount, and rear panel mount jam-nut.

Cable Adapters with Crimp Rings provided with each connector for reliable cable termination.

NOTES

- 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: see DWV Rating Table
 - Hermeticity: 1 x 10⁻⁷ ccHe/sec @ 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
- After cable is terminated and adapters inserted in contact rear, the rear of the connector must be potted to cover adapters
- See page F-8 for panel cut-out dimensions

Table I: Shell Style

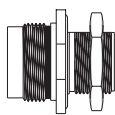
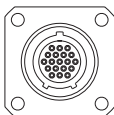
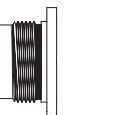
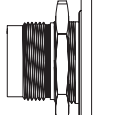
			
-00 Front Panel Mount, Jam-Nut	-02 Square Flange	-03 Weld Mount	-07 Rear Panel Mount, Jam-Nut

Table II: Keyway 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°

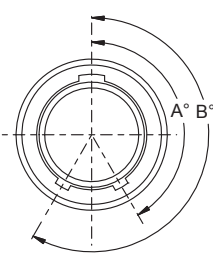
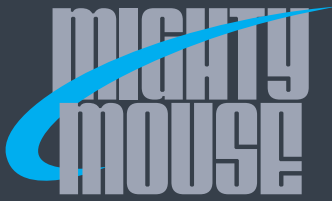


Table III: Cable Adapter

Dash No.	Cables Accommodated
-01	M17/113-RG316
-02	M17/152-00001 (RG316DS)
-03	M17/93-RG178
-04	RG-178 double shield per DSCC 06017
-05	M17/94-RG179
-06	PIC 73263, 75 OHM cable

DWV Rating

Contact Sizes	Test Voltage
23	750 Vac
20 HD	1000 Vac
16, 12, 8	1800 Vac
16 CO-AX**	800 Vac
12 CO-AX**	1000 Vac
**Inner contact to outer contact	

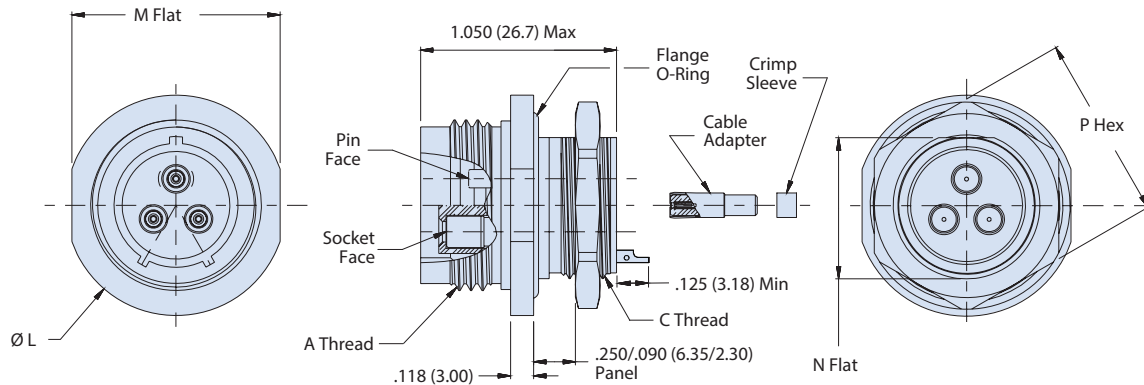


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

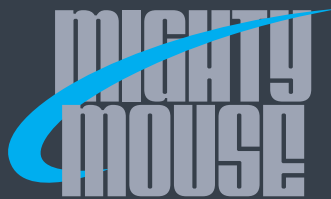
HERMETIC JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 00



Dimensions								
Shell Size	L Max.	M Flat	A Mating Threads	C Threads	N Flat	P Hex	Piston O-ring	Flange O-ring
5	.72 (18.29)	.625 (15.88)	.4375-28 UNEF	.312-28 UN	.281 (7.14)	.500 (12.70)	2-009	2-012
6	.78 (19.81)	.750 (19.05)	.5625-20 UN	.438-28 UN	.406 (10.31)	.625 (15.88)	5-052	2-014
7	.91 (23.11)	.812 (20.62)	.6250-20 UN	.500-32 UN	.469 (11.91)	.688 (17.48)	2-012	2-015
8	.96 (24.38)	.875 (22.23)	.6875-20 UN	.562-28 UN	.531 (13.49)	.750 (19.05)	5-212	2-016
9	1.03 (26.16)	.937 (23.80)	.7500-20 UNEF	.625-20 UN	.594 (15.09)	.812 (20.62)	2-014	2-017
10	1.09 (27.69)	1.000 (25.40)	.8125-20 UNEF	.687-28 UN	.656 (16.66)	.875 (22.23)	2-015	2-018
12	1.16 (29.46)	1.062 (26.97)	.8750-20 UNEF	.750-28 UN	.719 (18.26)	.938 (23.83)	2-016	2-019
14	1.34 (34.04)	1.250 (31.75)	1.0625-20 UN	.938-28 UN	.893 (22.68)	1.125 (28.58)	2-019	2-022
15	1.41 (35.81)	1.312 (33.32)	1.1250-20 UN	1.000-28 UN	.955 (24.26)	1.188 (30.18)	2-020	2-023
19	1.63 (41.40)	1.530 (38.86)	1.3125-20 UN	1.250-28 UN	1.235 (31.37)	1.438 (36.53)	2-022	2-027
21	1.70 (43.18)	1.562 (39.67)	1.4375-20 UN	1.312-28 UN	1.257 (31.93)	1.500 (38.10)	2-023	2-028

Material/finish

- Shell, jam-nut: SST / See How to Order Table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone blend
- Contact, hermetic: nickel-iron alloy / gold plate
- Contact, socket: copper alloy / gold plated per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton
- Cable adapter, crimp sleeve: copper alloy / gold plated

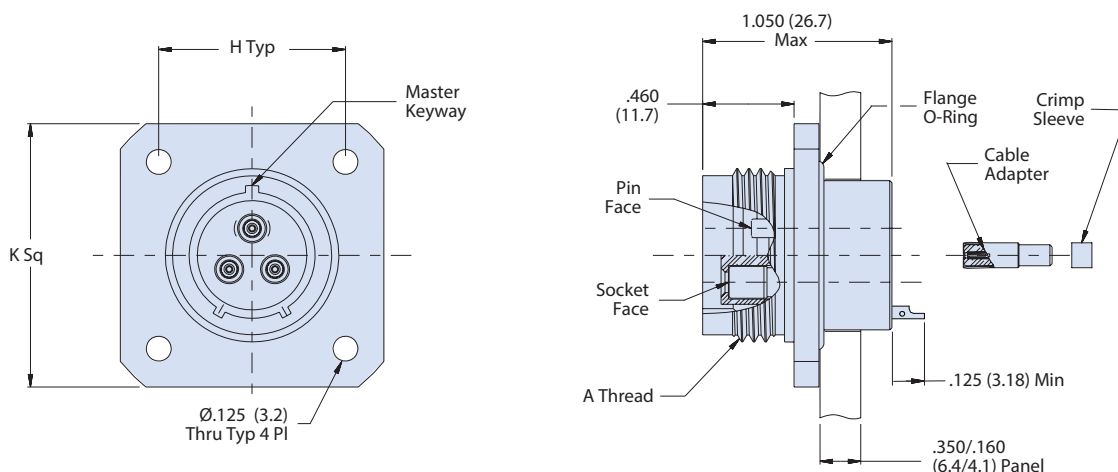


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

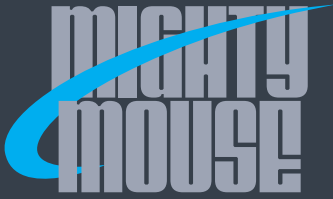
HERMETIC SQUARE FLANGE, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02



Dimensions					
Shell Size	K Square	H Bsc.	A Mating Threads	Piston O-ring	Flange O-ring
5	.885 (22.48)	.500 (12.70)	.4375-28 UNEF	2-009	2-012
6	1.010 (25.65)	.625 (15.88)	.5625-20 UN	5-052	2-014
7	1.072 (27.23)	.688 (17.48)	.6250-20 UN	2-012	2-015
8	1.135 (28.83)	.750 (19.05)	.6875-20 UN	5-212	2-016
9	1.195 (30.35)	.812 (20.62)	.7500-20 UNEF	2-014	2-017
10	1.260 (32.00)	.875 (22.23)	.8125-20 UNEF	2-015	2-018
12	1.323 (33.60)	.938 (23.83)	.8750-20 UNEF	2-016	2-019
14	1.510 (38.35)	1.125 (28.58)	1.0625-20 UN	2-019	2-022
15	1.573 (39.95)	1.188 (30.18)	1.1250-20 UN	2-020	2-023
19	1.625 (41.28)	1.250 (31.75)	1.3125-20 UN	2-022	2-027
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN	2-023	2-028

Material/finish

- Shell : SST / See How to Order Table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone blend
- Contact, hermetic: nickel-iron alloy / gold plate
- Contact, socket: copper alloy / gold plated per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton
- Cable adapter, crimp sleeve: copper alloy / gold plated

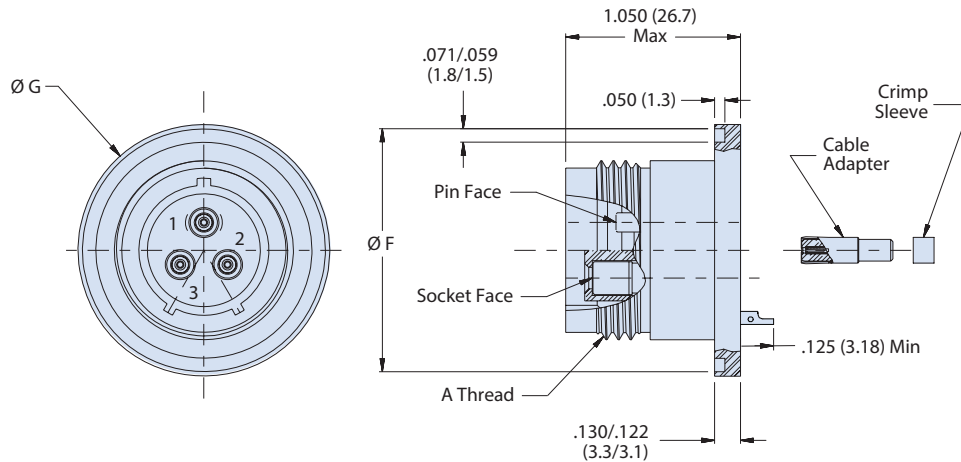


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

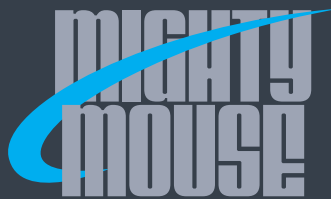
HERMETIC WELD MOUNT RECEPTACLE - SHELL STYLE 03



Dimensions				
Shell Size	A Mating Threads	Ø G	Ø F	Piston O-ring
5	.4375-28 UNEF	.790 (20.07)/.786 (19.96)	.751 (19.08)/.739 (18.77)	2-009
6	.5625-20 UN	.914 (23.22)/.910 (23.11)	.875 (22.23)/.863 (21.92)	5-052
7	.6250-20 UN	.977 (24.82)/.973 (24.71)	.939 (23.85)/.927 (23.55)	2-012
8	.6875-20 UN	1.040 (26.42)/1.036 (26.31)	1.001 (25.43)/.989 (25.12)	5-212
9	.7500-20 UNEF	1.102 (27.99)/1.098 (27.89)	1.063 (27.00)/1.051 (26.70)	2-014
10	.8125-20 UNEF	1.164 (29.57)/1.160 (29.46)	1.125 (28.58)/1.113 (28.27)	2-015
12	.8750-20 UNEF	1.227 (31.17)/1.223 (31.06)	1.188 (30.18)/1.176 (29.87)	2-016
14	1.0625-20 UN	1.414 (35.92)/1.410 (35.81)	1.375 (34.92)/1.363 (34.62)	2-019
15	1.1250-20 UN	1.477 (37.52)/1.473 (37.41)	1.438 (36.53)/1.426 (36.22)	2-020
19	1.3750-20 UN	1.667 (42.34)/1.663 (42.24)	1.626 (41.30)/1.614 (41.00)	2-022
21	1.4375-20 UN	1.797 (45.64)/1.793 (45.54)	1.750 (44.45)/1.744 (44.30)	2-023

Material/finish

- Shell: SST / See How to Order Table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone blend
- Contact, hermetic: nickel-iron alloy / gold plate
- Contact, socket: copper alloy / gold plated per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton
- Cable adapter, crimp sleeve: copper alloy / gold plated

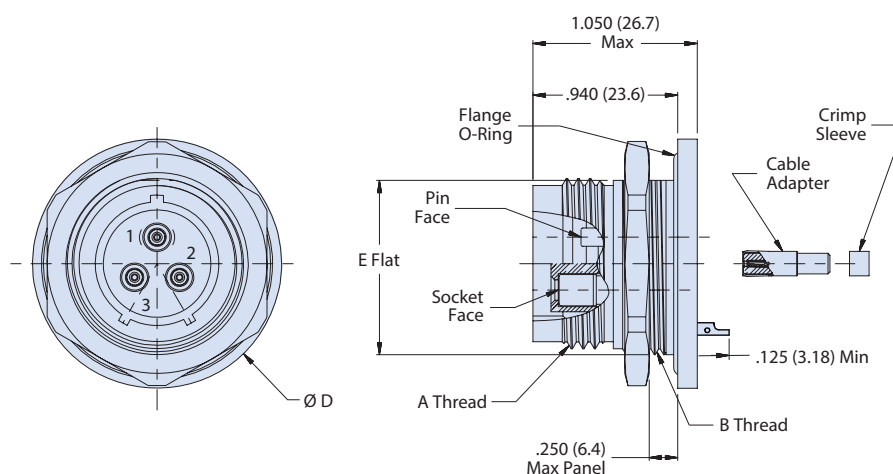


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

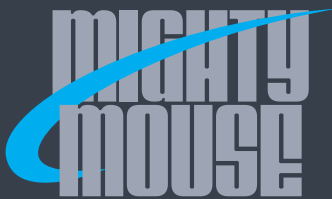
HERMETIC JAM-NUT, REAR PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions						
Shell Size	A Mating Threads	B Threads	D Max.	E Flat	Piston O-ring	Flange O-ring
5	.4375-28 UNEF	.500-32 UN	.885 (22.48)	.469 (11.91)/.463 (11.76)	2-009	2-015
6	.5625-20 UN	.625-20 UN	1.010 (25.65)	.594 (15.09)/.588 (14.94)	5-052	2-017
7	.6250-20 UN	.687-28 UN	1.072 (27.23)	.656 (16.66)/.650 (16.51)	2-012	2-019
8	.6875-20 UN	.750-28 UN	1.135 (28.83)	.729 (18.52)/.725 (18.42)	5-212	2-019
9	.7500-20 UNEF	.812-28 UN	1.195 (30.35)	.781 (19.84)/.775 (19.68)	2-014	2-020
10	.8125-20 UNEF	.875-28 UN	1.260 (32.00)	.830 (21.08)/.824 (20.93)	2-015	2-021
12	.8750-20 UNEF	.938-28 UN	1.322 (33.58)	.893 (22.68)/.887 (22.53)	2-016	2-022
14	1.0625-20 UN	1.125-28 UN	1.510 (38.35)	1.080 (27.43)/1.074 (27.28)	2-019	2-025
15	1.1250-20 UN	1.188-28 UN	1.572 (39.93)	1.143 (29.03)/1.137 (28.88)	2-020	2-026
19	1.3125-20 UN	1.3750-20 UN	1.940 (49.28) 1.790 (45.47)	1.345 (34.16)/1.341 (34.06)	2-022	2-029
21	1.4375-20 UN	1.500-28 UN	1.940 (49.28)	1.467 (37.26)/1.463 (37.16)	2-023	2-030

Material/finish

- Shell, jam-nut: SST / See How to Order Table
- Insulator, hermetic: full glass
- Insulator, socket: high grade rigid dielectric
- Interfacial seal: fluorosilicone blend
- Contact, hermetic: nickel-iron alloy / gold plate
- Contact, socket: copper alloy / gold plated per ASTM B 488, Type II Class 1.25, over a suitable underplate
- O-ring: Viton
- Cable adapter, crimp sleeve: copper alloy / gold plated



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Hermetic Receptacle, 1000 PSI Open Face Rated Jam-Nut Mount Bulkhead Feedthrough



Series 802 Hermetic Jam-Nut Mount, Bulkhead Feedthrough Receptacles

provide a separable hermetic connection on both sides of a mounting panel. 100% tested to meet 1×10^{-7} ccHe/sec @ 1 atm helium leak rate. Gold plated iron alloy contacts and compression glass dielectric material. The passivated, stainless steel connector shell offers excellent corrosion protection. Available with pin to pin contacts. Power applied to a given contact on one end will result in power to contact directly opposite, regardless of contact identification letter. Shell sizes 5 thru 21 have a maximum open face rated test pressure of 1,000 PSI in one direction.

How To Order								
Sample Part Number	802-064	Z1	15-85	P	P	A	04	V
Series	802-064 = Bulkhead Feed-Thru Hermetic Receptacle							
Shell Material and Finish	Z1 = 316 Stainless Steel / Passivated							
Shell Size - Insert Arrangement	See Contact Arrangements page F-3							
Contact Type Jam-Nut Side	P = Pin							
Contact Type Opposite Side	P = Pin							
Polarization (See Table I)	A = Normal B = Pos. B C = Pos. C D = Pos. D E = Pos. E F = Pos. F							
Panel Thickness (See Table II)	-01 = .500/1.000 -02 = 1.000/1.500 -03 = 1.500/2.000 -04 = 2.000/2.500 -05 = 2.500/3.000 -06 = 3.000/3.500 -07 = 3.500/4.000							
O-ring Material	V = Viton N = Nitrile NA = No external O-rings supplied (suggested material: Nitrile)							

Table II: Panel Thickness

Panel Thickness Code	H Panel Thickness	J Maximum Length
-01	.500/1.000	2.450
-02	1.000/1.500	2.950
-03	1.500/2.000	3.450
-04	2.000/2.500	3.950
-05	2.500/3.000	4.450
-06	3.000/3.500	4.950
-07	3.500/4.000	5.450

DWV Rating

Contact Sizes	Test Voltage
23	750 Vac
20 HD	1000 Vac
16, 12, 8	1800 Vac

Table I: Keyway Positions

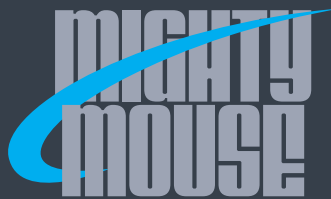
Key Position	Key Rotation	
	A°	B°
A Normal	150°	210°
B	75°	210°
C	95°	230°
D	140°	275°
E	75°	275°
F	95°	210°

NOTES

- Mates with 802 series plugs
- Electrical safety limits and maximum usage pressure to be determined by the customer
- I.R.: 5,000 megohms test(@ 500 VDC minimum)
- Hermeticity: 5×10^{-8} ccHe/sec at 1 atm

TEST REQUIREMENTS

- DWV:
 - » #23 contacts: 750 VAC pin-to-pin and pin-to-shell without breakdown
 - » #20 contacts 1000 VAC pin-to-pin and pin-to-shell without breakdown
 - » #16, #12, #8 contacts: 1800 VAC pin-to-pin and pin-to-shell without breakdown
- Insulation resistance: 5,000 megohms minimum at 500 VDC
- Factory pressure test: 3,500 PSI open-face

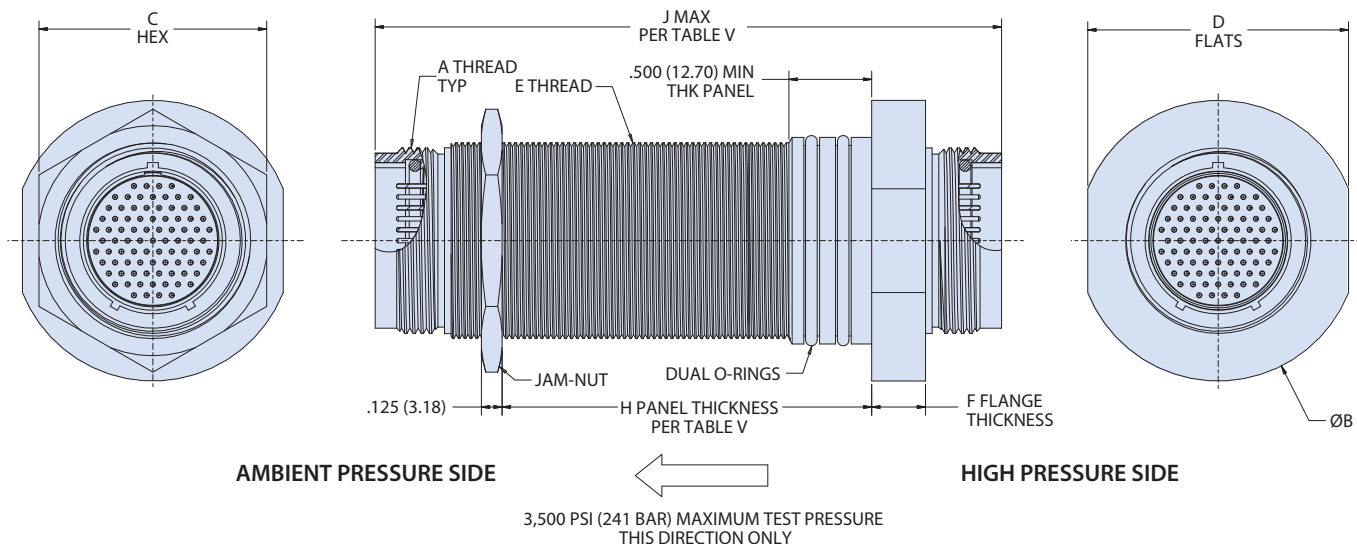


SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



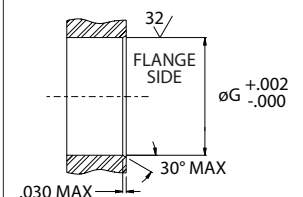
Hermetic Receptacle, 1000 PSI Open Face Rated Jam-Nut Mount Bulkhead Feedthrough

JAM-NUT MOUNT BULKHEAD FEED-THRU



Dimensions								
Shell Size	A Thread	Ø B Max	C Hex	D Flat	E Thread	Ø G	Ext. O-Ring	F
5	.4375-28 UNEF	.950 (24.13)	.688 (17.48)	.880 (22.35) .870 (22.10)	.5000-32 UN-2A	.562 (14.27)	2-013	.260 (6.60)
6	.5625-20 UN	1.150 (29.21)	.812 (20.62)	1.010 (25.65) 1.000 (25.40)	.6250-20 UN-2A	.687 (17.45)	2-015	.260 (6.60)
7	.6250-20 UN	1.225 (31.12)	.875 (22.23)	1.080 (27.43) 1.070 (27.18)	.6875-28 UN-2A	.750 (19.05)	2-016	.260 (6.60)
8	.6875-20 UN	1.275 (32.39)	.938 (23.83)	1.140 (28.96) 1.130 (28.70)	.7500-28 UN-2A	.812 (20.62)	2-017	.260 (6.60)
9	.7500-20 UNEF	1.325 (33.65)	1.000 (25.40)	1.205 (30.61) 1.195 (30.35)	.8125-28 UN-2A	.875 (22.23)	2-018	.260 (6.60)
10	.8125-20 UNEF	1.380 (35.05)	1.000 (25.40)	1.270 (32.26) 1.260 (32.00)	.8750-28 UN-2A	.937 (23.80)	2-019	.260 (6.60)
12	.8750-20 UNEF	1.462 (37.13)	1.125 (28.58)	1.330 (33.78) 1.320 (33.53)	.9375-28 UN-2A	1.000 (25.40)	2-020	.260 (6.60)
14	1.0625-20 UN	1.650 (41.91)	1.312 (33.32)	1.520 (38.61) 1.510 (38.35)	1.1250-28 UN-2A	1.187 (30.15)	2-023	.325 (8.25)
15	1.1250-20 UN	1.700 (43.18)	1.375 (34.92)	1.580 (40.13) 1.570 (39.88)	1.1875-28 UN-2A	1.250 (31.75)	2-024	.325 (8.25)
19	1.3125-20 UN	2.000 (50.80)	1.500 (38.10)	1.855 (47.12) 1.845 (46.86)	1.3750-20 UN-2A	1.430 (36.32)	2-027	.325 (8.25)
21	1.4375-20 UN	2.165 (54.99)	1.700 (43.18)	2.015 (51.18) 2.005 (50.93)	1.5000-28 UN-2A	1.625 (41.28)	2-029	.325 (8.25)

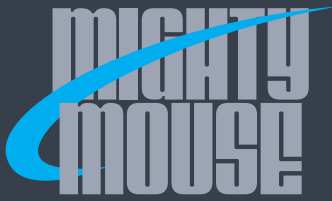
Jam-Nut Mount Bulkhead Feed-Thru, Panel Cutout Dimensions



Shell Size	Ø G
5	.562 (14.27)
6	.687 (17.45)
7	.750 (19.05)
8	.812 (20.62)
9	.875 (22.23)
10	.937 (23.80)
12	1.000 (25.40)
14	1.187 (30.15)
15	1.250 (31.75)
19	1.430 (36.32)
21	1.625 (41.28)

Material/Finish

- Shell, jam-nut: SST / passivated
- Pin contacts: nickel-iron alloy/gold plate
- Insulator low pressure side: rigid dielectric
- O-rings: Viton (FKM) standard
- Insulator high pressure side: vitreous glass



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Shielded and Overmolded, 3500 PSI Watertight Harsh Environment Cordsets (Mated Condition)

Series 802 Harsh Environment Shielded Cordsets



Overmolded AquaMouse™ cordsets are used in oil and gas pipeline equipment and other hostile environments where interconnect reliability and survivability is essential. High performance cordsets feature easy ordering and fast delivery. These fully shielded and watertight assemblies withstand abrasion, temperature extremes, and chemicals. Flexible overmolding provides rugged, watertight protection to wire and shield.

Product Features

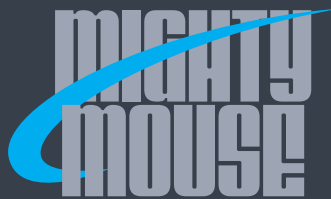
- 3500 PSI (mated)
- Rugged, watertight construction
- 100% electrically tested
- BandMaster ATS Shield Termination
- Abrasion Resistant
- Resistant to chemicals
- Withstands UV and ozone

Harsh Environment Cordset Selection Guide

Property	Polyurethane Jacket Polyurethane Overmold
Cable jacket	Thermoplastic polyurethane (TPU), black
Overmold	Thermoset polyurethane, black
Operating temperature	-40° C. to +105° C.
Flexibility	Good
Water Resistance	3500 PSI (mated)
Solvent Resistance, Cable Jacket	Excellent
Solvent Resistance, Overmold	Excellent
Weatherability	Excellent
Abrasion Resistance	Excellent
Flammability	Flame retardant UL 94 V-0

Specifications

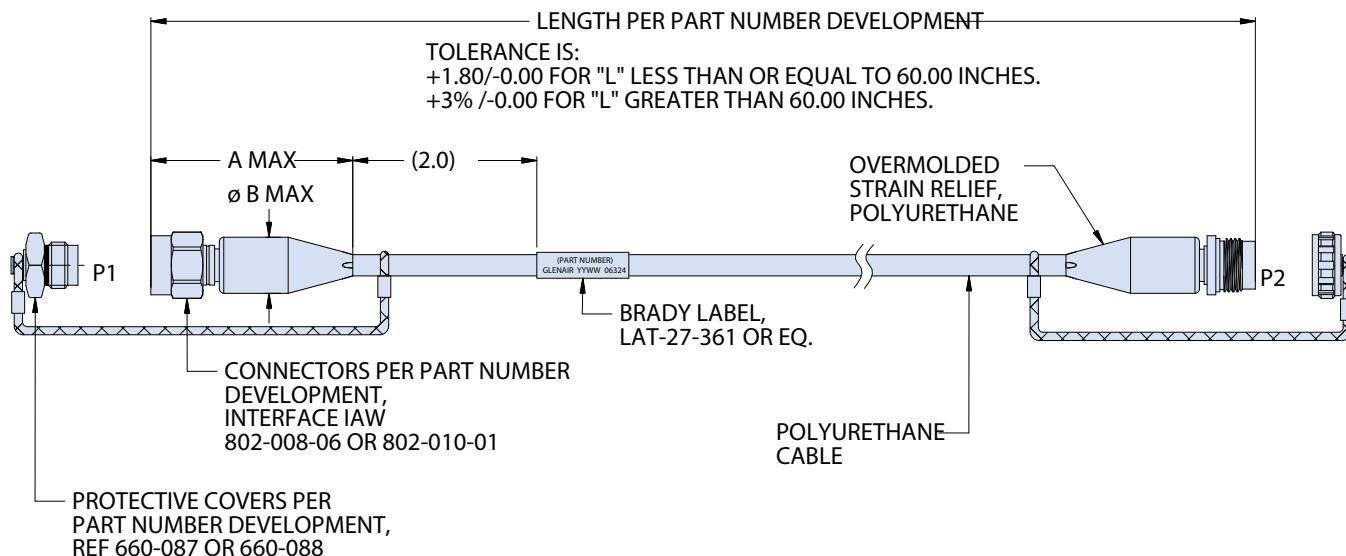
Cable jacket	Thermoplastic polyurethane, black
Overmold	thermoset polyurethane
Cable shield	Tin-coated copper braid, 90% minimum coverage
Conductors	Silver coated stranded wire, TFE insulated, per M22759/11
Shield Termination	Band-Master™ ATS stainless steel shield termination band
Current rating	#23–5 amps, #20–7.5 amps, #16–13 amps, #12–23 amps
Test voltage (DWV)	#23–500 Vac, #20–500 vac, #16 and #12–500 VAC sea level
Insulation resistance	200 Megohms minimum
Shielding effectiveness	50 dB minimum from 100MHz to 1000MHz.



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Shielded and Overmolded, 3500 PSI Watertight Harsh Environment Cordsets (Mated Condition)



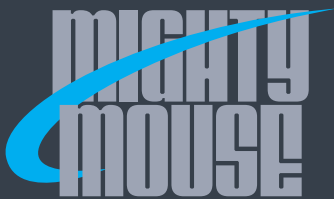
Dimensions		
Shell Size	A Max.	B Max.
5	2.31 (58.67)	0.5 (12.70)
6	2.40 (60.96)	0.55 (13.97)
7	2.50 (63.50)	0.65 (16.51)
8	2.52 (64.01)	0.70 (17.78)
9	2.80 (71.12)	0.75 (19.05)
10	2.75 (69.85)	0.80 (20.32)
12	3.10 (78.74)	0.90 (22.86)
14	3.40 (86.36)	1.10 (27.94)
15	3.40 (86.36)	1.20 (30.48)
19	3.40 (86.36)	1.38 (35.05)
21	3.40 (86.36)	1.50 (38.10)

NOTES

- Double-ended cordsets are wired pin #1 to pin #1, #2 to #2, and so on.
- Wires are silver-coated stranded copper with TFE insulation, 600V, in accordance with M22759/11.
- Wire color is IAW MIL-STD-681 for cables containing 10 wires or less. For cable containing more than 10 wires, wire color is white.

Plug 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°

Receptacle Keyway 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°



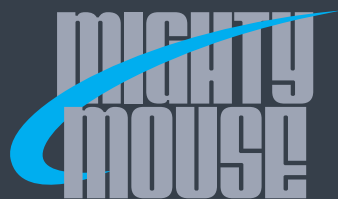
SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Shielded and Overmolded, 3500 PSI Watertight Harsh Environment Cordsets (Mated Condition)

Series 802 Cordsets with #23 Contacts								
Sample Part Number								
802-058	-A	C	4	Z1	9-19	N	A	-36
Series	End A Connector	End B Connector	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
802-058 Polyurethane Cable Jacket, Thermoset Polyurethane Overmold, 2500 PSI	-A Plug, with Male Pin Contacts	A Plug, with Male Pin Contacts	2 #22 AWG	Z1 Stainless Steel Shell / Passivated	See page F-3 for insert arr.	P Metal Protective Covers Included	A Normal	Overall Length In Inches
	-B Plug, with Female Socket Contacts	B Plug, with Female Socket Contacts	4 #24 AWG	ZM Stainless Steel Shell / Electroless Nickel Plated	Consult Factory for Combo Arr.	N No Covers Supplied	B Pos. B	12 Inch Min.
	-C Receptacle, with Male Pin Contacts	C Receptacle, with Male Pin Contacts		AB Marine Bronze Shell Unplated			C Pos. C	Consult factory for lengths over 1200 in. (100 ft)
	-D Receptacle, with Female Socket Contacts	D Receptacle, with Female Socket Contacts					D Pos. D	
		N No Connector (Single-Ended)					E Pos. E	
							F Pos. F	

Series 802 Cordsets with #20HD Contacts								
Sample Part Number								
802-059	-A	C	0	Z1	9-210	N	A	-36
Series	End A Connector	End B Connector	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
802-059 Polyurethane Cable Jacket, Thermoset Polyurethane Overmold, 2500 PSI Rated	-A Plug, with Male Pin Contacts	A Plug, with Male Pin Contacts	0 #20 AWG	Z1 Stainless Steel Shell / Passivated	See page F-3 for insert arr.	P Metal Protective Covers Included	A Normal	Overall Length In Inches
	-B Plug, with Female Socket Contacts	B Plug, with Female Socket Contacts	2 #22 AWG	ZM Stainless Steel Shell / Electroless Nickel Plated	Consult Factory for Combo Arr.	N No Covers Supplied	B Pos. B	12 Inch Min.
	-C Receptacle, with Male Pin Contacts	C Receptacle, with Male Pin Contacts		AB Marine Bronze Shell Unplated			C Pos. C	Consult factory for lengths over 1200 in. (100 ft)
	-D Receptacle, with Female Socket Contacts	D Receptacle, with Female Socket Contacts					D Pos. D	
		N No Connector (Single-Ended)					E Pos. E	
							F Pos. F	



SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



Shielded and Overmolded, 3500 PSI Watertight Harsh Environment Cordsets (Mated Condition)

Series 802 Cordsets with #16 Contacts								
Sample Part Number								
802-060	-A	C	6	Z1	9-4	N	A	-48
Series	End A Connector	End B Connector	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
802-060 Polyurethane Cable Jacket, Thermoset Polyurethane Overmold, 2500 PSI Rated	-A Plug, with Male Pin Contacts	A Plug, with Male Pin Contacts	6 #16 AWG	Z1 Stainless Steel Shell / Passivated	See page F-3 for insert arr.	P Metal Protective Covers Included	A Normal	Overall Length In Inches
	-B Plug, with Female Socket Contacts	B Plug, with Female Socket Contacts	8 #18 AWG	ZM Stainless Steel Shell / Electroless Nickel Plated	Consult Factory for Combo Arr.	N No Covers Supplied	B Pos. B	12 Inch Min.
	-C Receptacle, with Male Pin Contacts	C Receptacle, with Male Pin Contacts		AB Marine Bronze Shell Unplated			C Pos. C	Consult factory for lengths over 1200 in. (100 ft)
	-D Receptacle, with Female Socket Contacts	D Receptacle, with Female Socket Contacts					D Pos. D	
		N No Connector (Single-Ended)					E Pos. E	
							F Pos. F	

Series 802 Cordsets with #12 Contacts								
Sample Part Number								
802-061	-A	C	0	Z1	10-2	N	A	-48
Series	End A Connector	End B Connector	Wire Size	Shell Material / Finish	Insert Arr.	Protective Cover	Shell Key Pos.	Length
802-061 Polyurethane Cable Jacket, Thermoset Polyurethane Overmold, 2500 PSI Rated	-A Plug, with Male Pin Contacts	A Plug, with Male Pin Contacts	2 #12 AWG	Z1 Stainless Steel Shell / Passivated	See page F-3 for insert arr.	P Metal Protective Covers Included	A Normal	Overall Length In Inches
	-B Plug, with Female Socket Contacts	B Plug, with Female Socket Contacts	4 #14 AWG	ZM Stainless Steel Shell / Electroless Nickel Plated	Consult Factory for Combo Arr.	N No Covers Supplied	B Pos. B	12 Inch Min.
	-C Receptacle, with Male Pin Contacts	C Receptacle, with Male Pin Contacts		AB Marine Bronze Shell Unplated			C Pos. C	Consult factory for lengths over 1200 in. (100 ft)
	-D Receptacle, with Female Socket Contacts	D Receptacle, with Female Socket Contacts					D Pos. D	
		N No Connector (Single-Ended)					E Pos. E	
							F Pos. F	



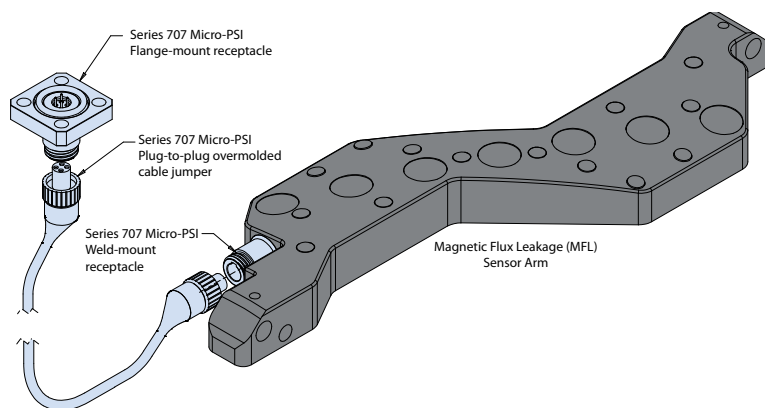
Series 707 Micro-PSI affords PIG designers the opportunity to design out legacy large form-factor connectors (such as shown in this picture) with a dramatically smaller interconnect solution.

10K PSI SOLUTION

Micro-PSI

Microminiature high-pressure connectors and cables

The Series 707 Micro-PSI is an ultraminiaturized 10K PSI high-pressure, high-temperature interconnect designed specifically for pipeline inspection applications in Magnetic Flux Leakage and ultrasonic pipeline inspection PIGs. The Micro-PSI insert arrangements feature two high-density micro TwistPin layouts for sensor applications and high-speed Gigabit Ethernet, and a Coax contact layout for 5 GHz performance. Micro-PSI connectors are supplied as discrete plugs, or overmolded plug cordsets with rugged Viton or Polyurethane jacketing. Bulkhead and flange mount receptacles are 10K psi open-face pressure sealed, and incorporate fused vitreous glass inserts for $<1 \times 10^{-7}$ scc He/sec hermetic performance. Serviceable O-rings on plugs and dual piston and face O-rings on receptacles provide high-reliability sealing.



Application example shows the 707 Micro-PSI used to interconnect an MFL sensor to on-board PIG data storage.



- 10,000 PSI pressure rated
- 5 GHz Coax
- Less than 1×10^{-7} scc He/sec @ 1 ATM pressure differential
- Special-purpose high density (.050" contact spacing) intelligent inspection (PIG) connector series
- 3 Amp high-speed Gigabit Ethernet-ready
- -20° to +150°C temperature range
- High-density, small form-factor