

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 Finish⁶	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°

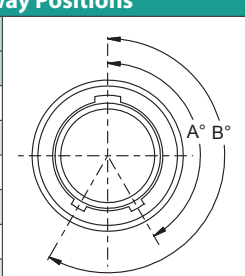
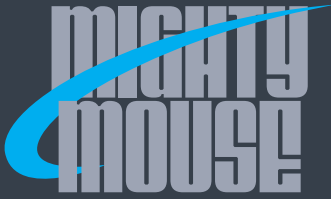


Table III: Cable Adapter	
Dash No.	Cables Accommodated
-01	M17/113-RG316
-02	M17/152-00001 (RG316DS)
-03	M17/93-RG178
-04	RG-178 double shield per DSCC 06017
-05	M17/94-RG179
-06	PIC 73263, 75 OHM cable

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	

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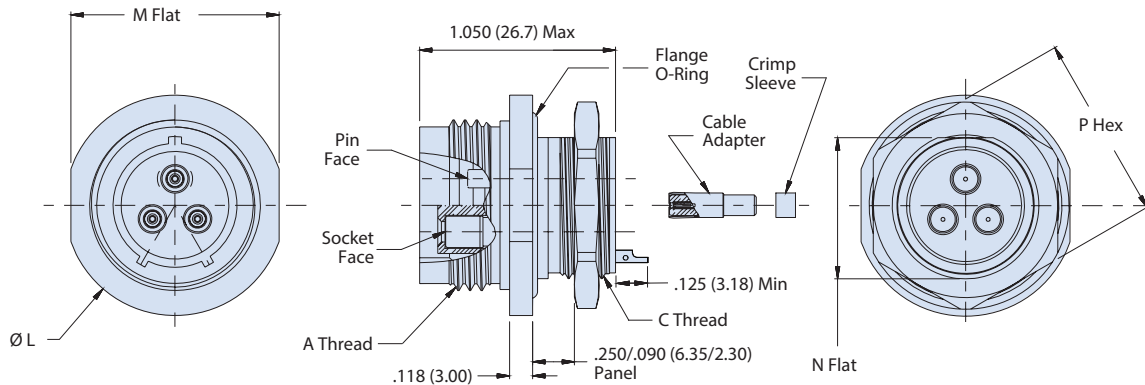


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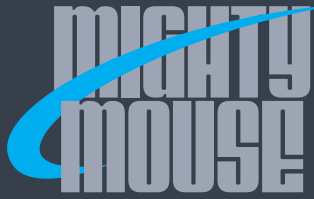
HERMETIC JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 00



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

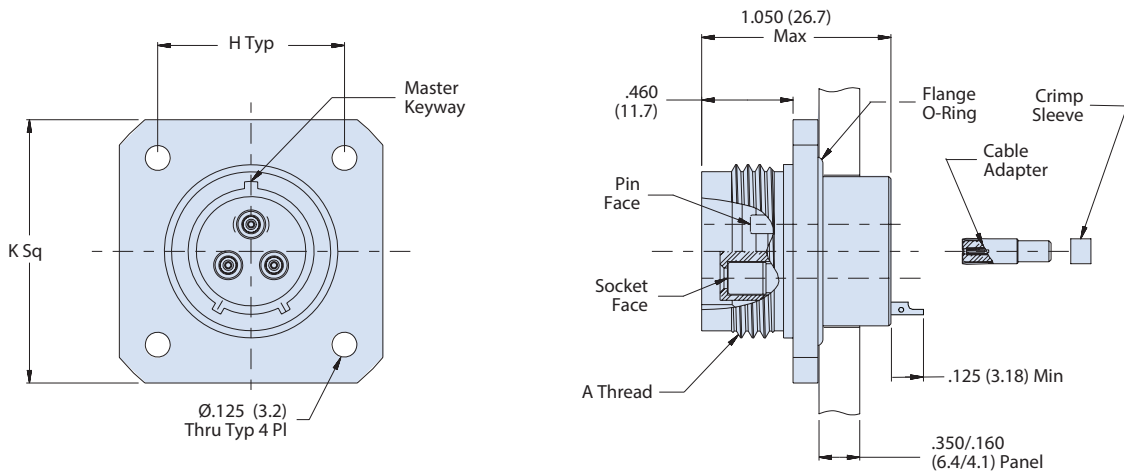


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HERMETIC SQUARE FLANGE, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 02

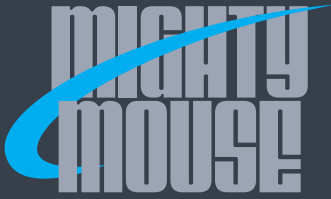


Dimensions					
Shell Size	K Square	H Bsc.	A Mating Threads	Piston O-ring	Flange O-ring
5	.885 (22.48)	.500 (12.70)	.4375-28 UNEF	2-009	2-012
6	1.010 (25.65)	.625 (15.88)	.5625-20 UN	5-052	2-014
7	1.072 (27.23)	.688 (17.48)	.6250-20 UN	2-012	2-015
8	1.135 (28.83)	.750 (19.05)	.6875-20 UN	5-212	2-016
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

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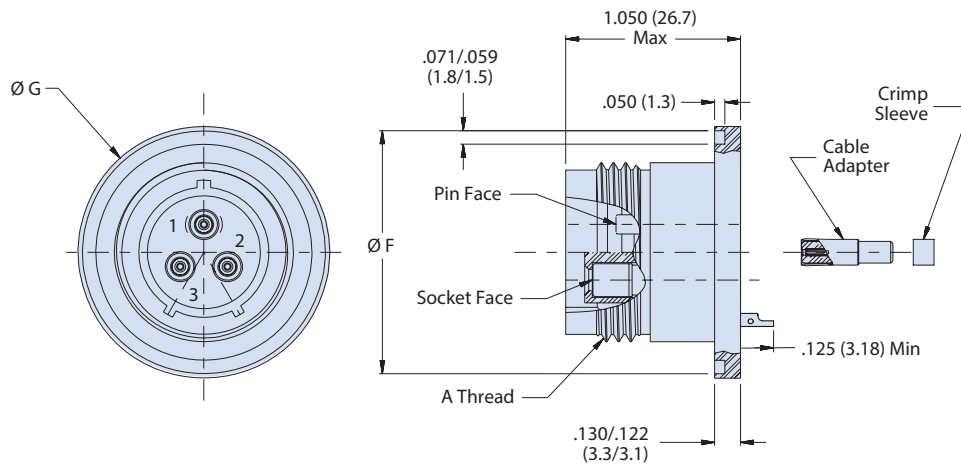


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Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

HERMETIC WELD MOUNT RECEPTACLE - SHELL STYLE 03

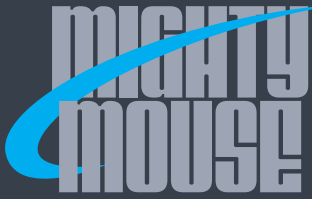


Dimensions				
Shell Size	A Mating Threads	$\varnothing G$	$\varnothing F$	Piston O-ring
5	.4375-28 UNEF	.790 (20.07)/.786 (19.96)	.751 (19.08)/.739 (18.77)	2-009
6	.5625-20 UN	.914 (23.22)/.910 (23.11)	.875 (22.23)/.863 (21.92)	5-052
7	.6250-20 UN	.977 (24.82)/.973 (24.71)	.939 (23.85)/.927 (23.55)	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

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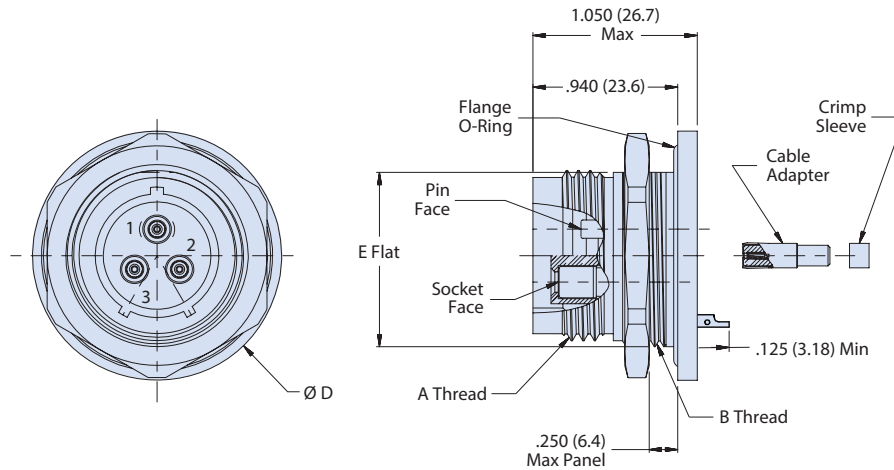


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Hermetic Receptacle with RF Contacts; 1000 PSI Open Face Rated

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