

# SERIES 802, 3500 PSI SUBMERSIBLE AquaMouse Connectors and Cables



## Hermetic Receptacle with Size 12 or 16 Coax 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  $1 \times 10^{-7}$  ccHe/sec @ 1 atm helium leak rate.

**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.

### Front Panel Mount Jam-Nut

How to Order	
Sample Part Number	802-040 -07 Z1 12-3 P A -01
Series	802-040 = Hermetic Receptacle
Shell Style (See Table I)	-00 = Jam-Nut, Front Panel Mount -02 = Sq Flange, Front Panel Mount -03 = Weld Mount -07 = Jam-Nut, Rear Panel Mount
Shell Material and Finish <sup>6</sup>	Z1 = Stainless Steel / Passivated ZL = Stainless Steel / Nickel Plated
Shell Size - Insert Arrangement	See Contact Arrangements page F-3
Contact Type	P = Pin, Co-Ax S = Socket, Co-Ax
Polarization (Table II)	A, B, C, D, E, F; (See Keyway Positions)
Cable Attachment (See Table III)	-01, -02, -03, -04, -05, -06; see Table IV

### 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: per Table III
  - Hermeticity:  $1 \times 10^{-7}$  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
- Titanium and Inconel® shell materials are available. Consult factory for ordering information.
- 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	9°	210°

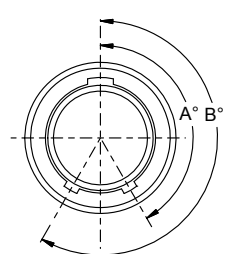


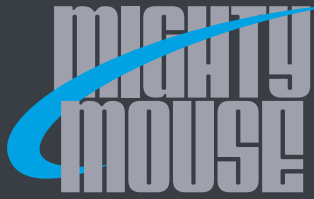
Table III: Cable Attachment

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

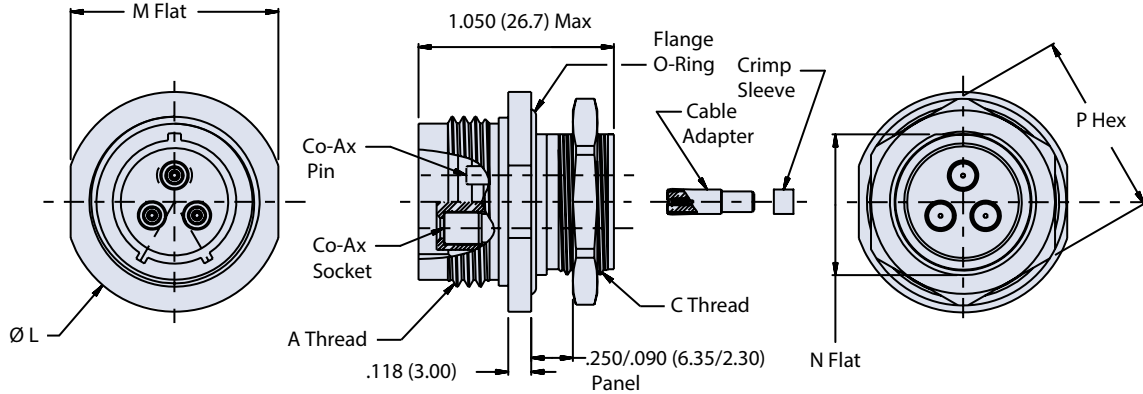


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## Hermetic Receptacle with Size 12 or 16 Coax Contacts; 1000 PSI Open Face Rated

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

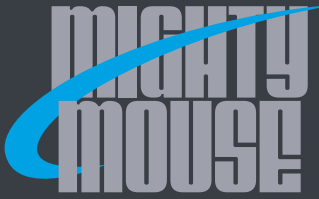


Dimensions						
Shell Size	L Max.	M Flat	A Mating Threads	C Threads	N Flat	P Hex
5	.720 (18.29)	.625 (15.88)	.438-28 UNEF-2A	.312-28 UN-2A	.281 (7.14)	.500 (12.70)
6	.780 (19.81)	.750 (19.05)	.562-20 UN-2A	.438-28 UN-2A	.344 (8.74)	.625 (15.88)
7	.910 (23.11)	.812 (20.62)	.625-20 UN-2A	.500-32 UN-2A	.469 (11.91)	.688 (17.48)
8	.960 (24.38)	.875 (22.23)	.687-20 UN-2A	.562-28 UN-2A	.531 (13.49)	.750 (19.05)
9	1.030 (26.16)	.937 (23.80)	.750-20 UNEF-2A	.625-20 UN-2A	.594 (15.09)	.812 (20.62)
10	1.090 (27.69)	1.000 (25.40)	.812-20 UNEF-2A	.687-28 UN-2A	.656 (16.66)	.875 (22.23)
12	1.160 (29.46)	1.062 (26.97)	.875-20 UNEF-2A	.750-28 UN-2A	.719 (18.26)	.938 (23.83)
14	1.340 (34.04)	1.250 (31.75)	1.062-20 UN-2A	.938-28 UN-2A	.893 (22.68)	1.125 (28.58)
15	1.410 (35.81)	1.312 (33.32)	1.125-20 UN-2A	1.000-28 UN-2A	.955 (24.26)	1.188 (30.18)
21	1.700 (43.18)	1.562 (39.67)	1.4375-20 UN-2A	1.312-28 UN-2A	1.257 (31.93)	1.500 (38.10)

#### 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, 90 shore / N.A.
- Cable adapter, crimp sleeve: copper alloy / gold plated

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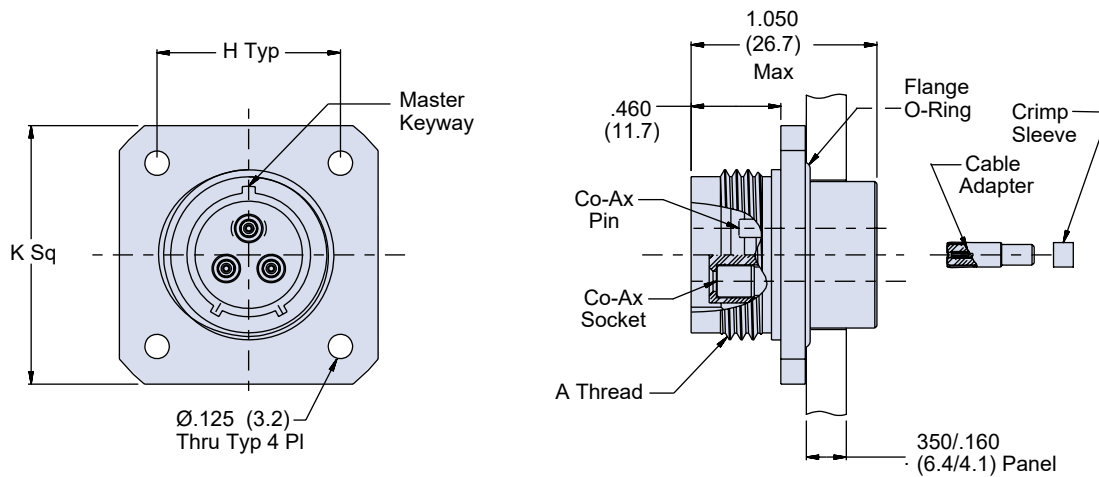


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## Hermetic Receptacle with Size 12 or 16 Coax Contacts; 1000 PSI Open Face Rated

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

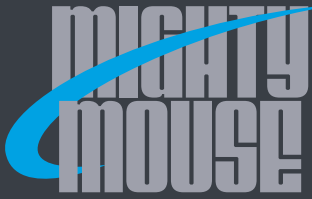


Dimensions				
Shell Size	K Square	H Bsc.	A Mating Threads	Ø E
5	.885 (22.48)	.500 (12.70)	.438-28 UNEF	.327 (8.31)
6	1.010 (25.65)	.625 (15.88)	.562-20 UN	.390 (9.91)
7	1.072 (27.23)	.688 (17.48)	.625-20 UN	.515 (13.08)
8	1.135 (28.83)	.750 (19.05)	.687-20 UN	.577 (14.66)
9	1.195 (30.35)	.812 (20.62)	.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	.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	1.015 (25.78)
21	1.750 (44.45)	1.375 (34.92)	1.4375-20 UN	1.312 (33.32)

#### 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, 90 shore / N.A.
- Cable adapter, crimp sleeve: copper alloy / gold plated

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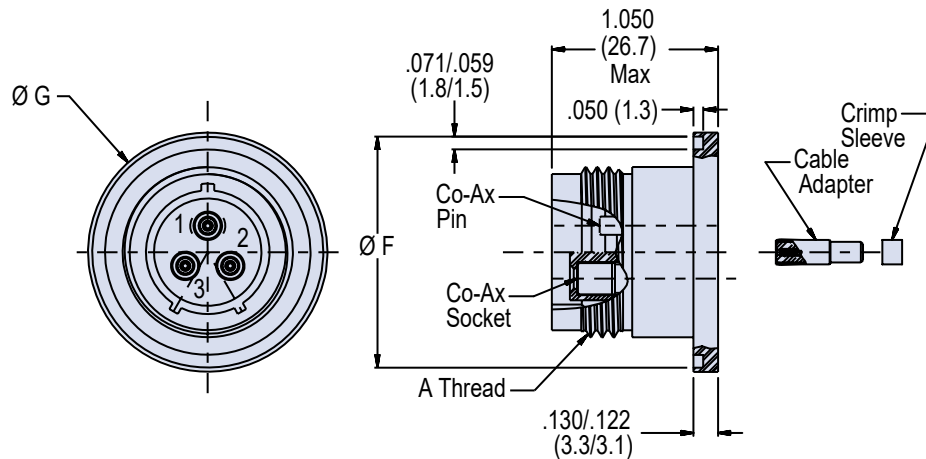


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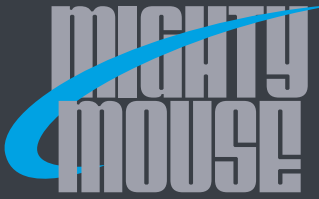
### HERMETIC WELD MOUNT RECEPTACLE - SHELL STYLE 03



Dimensions			
Shell Size	$\varnothing G$ $\pm .006 (\pm 0.15)$	$\varnothing F$ $\pm .006 (\pm 0.15)$	A Mating Threads
5	.788 (20.02)	.745 (18.92)	.438-28 UNEF
6	.912 (23.16)	.869 (22.07)	.562-20 UN
7	.975 (24.76)	.933 (23.70)	.625-20 UN
8	1.038 (26.37)	.995 (25.27)	.687-20 UN
9	1.100 (27.94)	1.057 (26.85)	.750-20 UNEF
10	1.162 (29.51)	1.119 (28.42)	.812-20 UNEF
12	1.225 (31.12)	1.182 (30.02)	.875-20 UNEF
14	1.412 (35.86)	1.369 (34.77)	1.062-20 UN
15	1.475 (37.47)	1.432 (36.37)	1.125-20 UN
21	1.795 (45.59)	1.747 (44.37)	1.4375-20 UN

#### 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, 90 shore / N.A.
- Cable adapter, crimp sleeve: copper alloy / gold plated

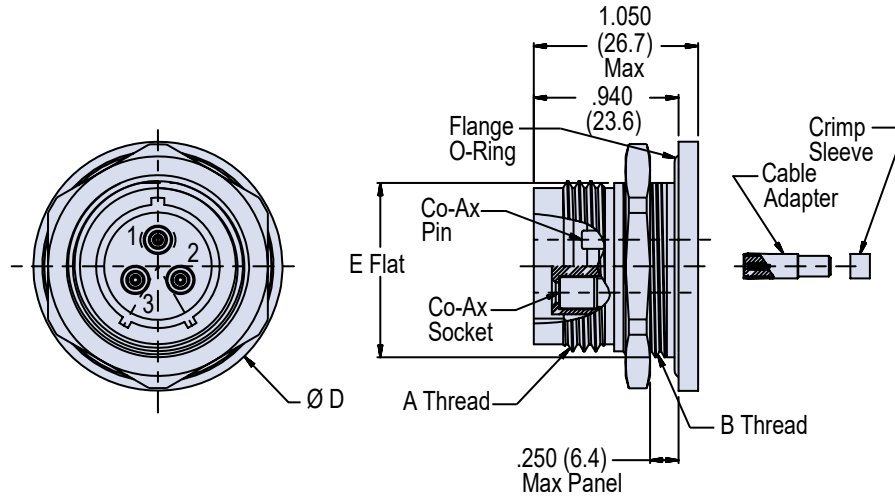


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## Hermetic Receptacle with Size 12 or 16 Coax Contacts; 1000 PSI Open Face Rated

### HERMETIC JAM-NUT, FRONT PANEL MOUNT RECEPTACLE - SHELL STYLE 07



Dimensions				
Shell Size	D Max.	E Flat $\pm .003 (\pm 0.08)$	A Mating Threads	B Threads
5	.885 (22.48)	.466 (11.84)	.438-28 UNEF	.500-32 UN-2A
6	1.010 (25.65)	.591 (15.01)	.562-20 UN	.625-20 UN-2A
7	1.072 (27.23)	.653 (16.59)	.625-20 UN	.687-28 UN-2A
8	1.135 (28.83)	.716 (18.19)	.687-20 UN	.750-28 UN-2A
9	1.195 (30.35)	.778 (19.76)	.750-20 UNEF	.812-28 UN-2A
10	1.260 (32.00)	.827 (21.01)	.812-20 UNEF	.875-28 UN-2A
12	1.322 (33.58)	.890 (22.61)	.875-20 UNEF	.938-28 UN-2A
14	1.510 (38.35)	1.077 (27.36)	1.062-20 UN	1.125-28 UN-2A
15	1.572 (39.93)	1.140 (28.96)	1.125-20 UN	1.188-28 UN-2A
21	1.940 (49.28)	1.464 (37.19)	1.4375-20 UN	1.500-28 UN-2A

#### 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, 90 shore / N.A.
- Cable adapter, crimp sleeve: copper alloy / gold plated

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