



SEACON ADVANCED PRODUCTS, LLC
PRODUCT DATASHEET

MSSQ FLANGED CONNECTOR RECEPTACLE SEM-MOUNTED ELECTRICAL BULKHEAD CONNECTION FOR DEEPWATER MUX CABLE CONNECTOR



MSSQ-FCR

DESCRIPTION

The **MSSQ-FCR** has been part of **SEACON**'s standard product line for over 30 years and has been used for connection to MUX cable connectors in the drilling industry for more than 10 years. The receptacle mounts to existing hole penetrations on many subsea modules. The connection side of the receptacle interfaces with **SEACON**'s standard **MSSQ** Cable Connector Plug line. Typical connection is to a **MSSQ-RUFF-NEK**, positive pressure compensated MUX cable connector. The **MSSQ** series of MUX terminations is available with electrical contacts only and electrical-fiber optic hybrids. Standard body material is passivated 316 SST although other materials are available upon request.

KEY FEATURES

- Mates to **MSSQ-RUFF-NEK** MUX cable connector
- Mounting o-ring test port
- Dual o-ring seals throughout
- Depth Rating: 20,000 psi mated, 5,000 psi open-face
- Mounts in standard **MSSQ** cavity, and others - see *AVAILABLE CONFIGURATIONS*

DESIGN RATINGS & TESTING

- Design pressure varies depending on application. 5000 psi standard
- Design life: 20 years
- Conductor Insulation Resistance: >1,000 Mohms @ 500 VDC

MATERIALS

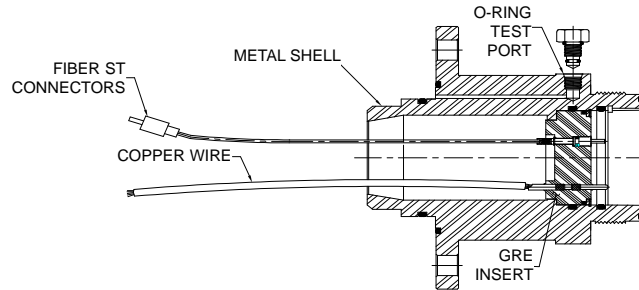
- Shell: Standard 316 SST, custom materials available
- Internal stainless steel parts: 302, 304, 316, 15-7 PH
- Insert: Glass Reinforced Epoxy
- Electrical contacts: Gold-plated copper
- O-Rings: Nitrile (formerly known as Buna N)
- Optical Contacts: Zirconia ceramic



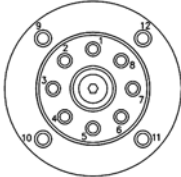
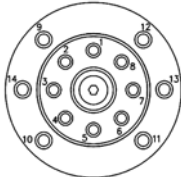
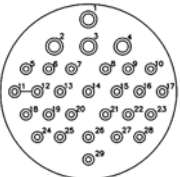
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PRINCIPLE OF OPERATION

The **MSSQ-FCR** uses flange-mounting to secure it to a bulkhead or vessel. Flange diameter varies depending on the application. Dual o-rings; one radial and one facial, provide sealing of the base. These o-rings are testable via the test port seen in Figure 2. A glass reinforced epoxy (GRE) 'insert' provides electrical isolation. The mating side of the receptacle, shown on the right, also uses radial and facial o-rings for sealing to the cable connector plug (CCP).



Electro-Optical **MSSQ-FCR**

BOP Control System	Varco	Varco ABB/Vetco Cameron	Hydril
Voltage Rating	1,000 VAC	1,000 VAC	1000 VAC - Power Contacts 600VDC - Signal Contacts
Current Rating	42 A	42 A	42A - Power Contacts 18A - Signal Contacts
Optical Loss	≤ 1.0 dB	≤ 1.0 dB	NA
Contact Configuration	 8FO/4#10 AWG	 8FO/6#10 AWG	 25#16/4#10 AWG

*See **SEACON** catalog for other standard **MSSQ** configurations.

QUALITY

- **SEACON** Advanced Products, LLC operate a Quality Management System certified to ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007.



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