

Fiber Optic Rotary Joint

Model 197

Focal Technologies Corporation, a Moog Inc. company, has over 30 years of expertise in supplying standard and custom marine products for harsh environment applications and is a leading manufacturer of high performance and high quality fiber optic rotary joints. Contact Focal for any assistance in selecting the best solution for your requirements.



The FO197 is a single-channel, multimode fiber optic rotary joint (FORJ). It is passive and bidirectional, and allows the transfer of any type of optical signal across rotational interfaces.

The FO197 fiber optic rotary joint can be combined with our electrical and / or fluid slip rings, providing a single, compact package for optical signals, electrical power and fluid transfer.

The FORJ can be assembled with pigtail lengths tailored to the customer's application or installed with connector bushings (ST or FC). Housing, mounting flange and drive features can also be customized to meet the customer's requirements.

Features

- Provides rotary coupling for a multimode fiber link
- Passive bidirectional device
- Alternative drive coupling and mounting arrangements are available (consult factory for specification details)
- Connectorized interfaces, for easy fiber cable replacement
- Stainless steel, aluminum or anodized aluminum housing
- Ruggedized design
 - MIL-STD-167-1 ship vibration
 - MIL-STD-810 functional shock (40 g)

Benefits

- Can be integrated into existing slip ring designs
- Passive bidirectional optical transmission
- Can be combined with our electrical slips and fluid unions
- Long life

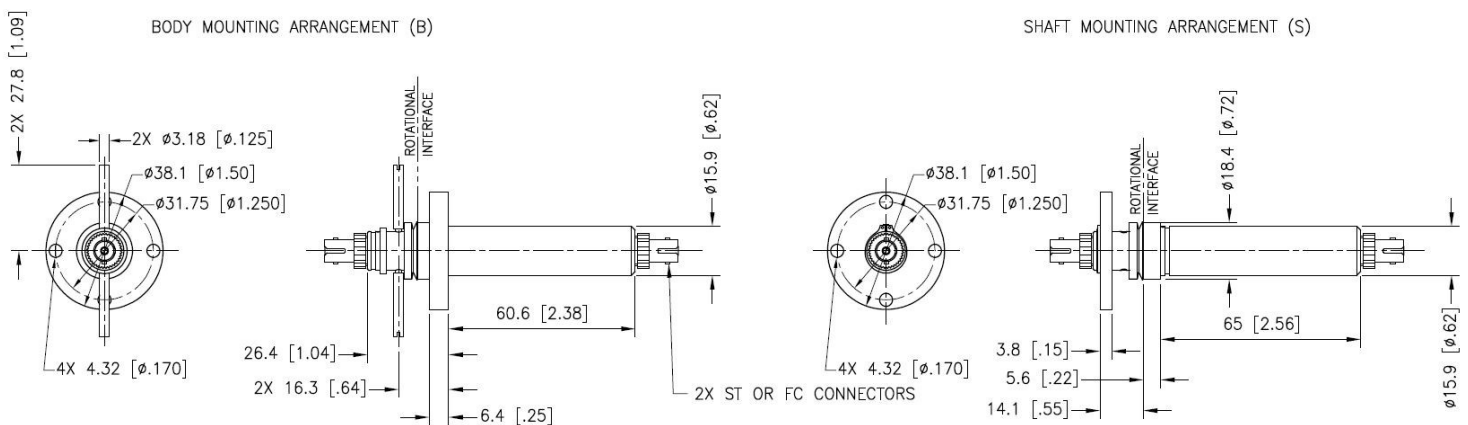
Applications

- ROVS
- Remote I/O in industrial machinery
- Video surveillance systems
- Material handling systems
- Sensor platforms
- Indexing tables
- Cable reels
- Robotics
- Turrets

Specifications

FO197 Specifications	
Fiber Size (Microns)	50 / 125, 62.5 / 125. Consult factory for other sizes
Insertion Loss	Typical < 1.5 dB, Maximum < 3.0 dB
Rotation Variation	Typical < 0.5 dB, Maximum < 1.0 dB
Back Reflection	Typical 22 dB, 18 dB Minimum
Wavelengths	Suitable for operation in 850nm and 1300nm multimode bands or 1300nm and 1550nm multimode bands. Consult factory for other wavelengths such as 900-1100nm band (tested at 1060nm)
Rotational Speeds	To 1000 rpm. Higher rotational speeds should be discussed with the factory
Temperature	-40 to +60 °C (dry version). Consult factory for extended range
Exterior Surfaces	Stainless steel, aluminum or anodized aluminum
Vibration	Per MIL-STD-167-1A
Shock	40 g / 11 ms sawtooth per MIL-STD-810 Method 516
Terminations	ST or FC connector receptacles or pigtailed with cable and connectors to meet customer's requirements. Consult factory for other connectors
Pressure	Up to 10,000 psi (69,000 kPa) for fluid filled version ¹
Pigtail Length	Up to 3 meters standard. Consult factory for longer lengths
Options	Hybrid units combined with electrical and fluid slip rings, available with or without mounting flange. Consult factory for details

¹ Fluid filled version is larger than shown. Consult factory.



All specifications and information are subject to change without notice. Please contact Focal for the latest updates.

Dimensions in millimeters [inches]

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