

FO190

Fiber optic rotary joint

Description

The FO190 is a multipass fiber optic rotary joint (FORJ) for 2 to 21 multimode fibers. It is passive and bidirectional and allows the transfer of data, video and other signals on separate fibers across rotational interfaces.

The FO190 can be combined with our electrical and / or fluid slip rings, giving a single, compact package for optical signals, electrical power and fluid transfer.

Other options include fluid-filling for pressure compensation permitting operation at any ocean depth, and the combination of the FO242 to include up to 6 singlemode passes.

Features

- 2 to 21 multimode channels
- Lightweight aluminum construction
- Can be combined with our electrical slips, fluid unions and the FO242 singlemode fiber optic rotary joint
- Alternative drive coupling arrangements are available (consult factory for specification details)
- Tested to 10,000 psi (69,000 kPa) when fluid-filled
- Connectorized interfaces, for easy fiber cable replacement
- Rugged design
 - MIL-STD-167-1 ship vibration
 - MIL-STD-810E functional shock (40 g)
 - MIL-STD-901D heavy shock (65 g)



Typical Applications

- Winches and cable reels for ROV's
- Remote I / O in industrial machinery
- Towed arrays and dipping sonar
- Material handling systems
- Surveillance systems
- Cranes

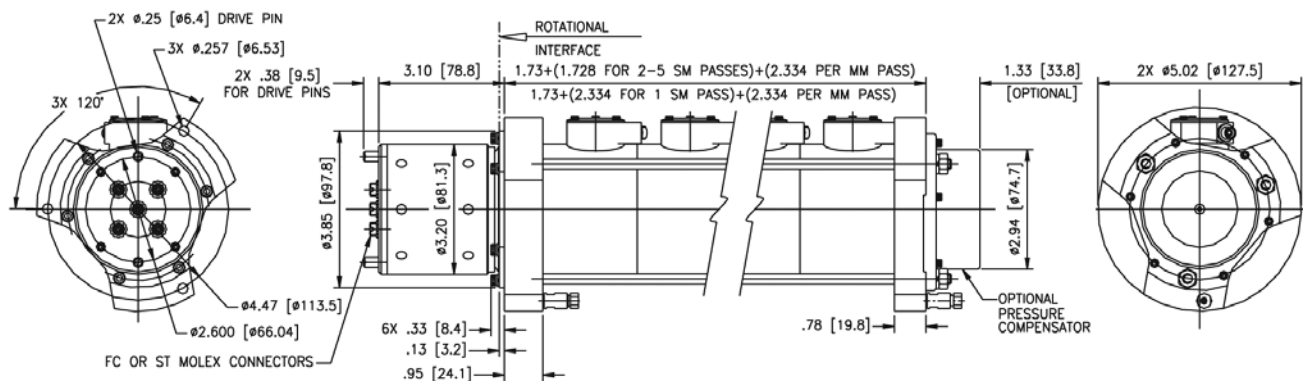
Fiber Optic Rotary Joints (FORJ)

FO190 Specifications

Fiber Size (Microns)	50 / 125 or 62.5 / 125
Insertion Loss (Maximum Values)	<6.5 dB (50 / 125 fiber) <5.5 dB (62.5 / 125 fiber)
Rotation Variation	<1.5 dB
Wavelengths	850, 1300 or 1550 nm. Consult factory for multi-wavelength applications.
Rotational Speeds	To 100 rpm dry and 60 rpm fluid filled. Higher rotation speeds should be discussed with the factory.
Temperature	-40 to +60 deg C
Dispersion	< 10 picoseconds (calculated)
Return Loss	< -18 dB
Vibration	Tested to MIL-STD-167-1 (ships)
Shock	Tested to MIL-STD-810E and MIL-STD-901D
Connectors	FC / PC connector bushings standard. (ST connector bushings optional.)

Note: Optical values given are based on use with LED sources.

FO190 Dimensions



Dimensions in inches [millimeters]