

FO228 / FO282

Fiber optic rotary joint

Description

The FO228 (single-pass multimode) and the FO282 (single-pass singlemode) are passive and bidirectional, and maintain the benefits of fiber optics (such as high bandwidth and EMI immunity) in systems with a rotational interface.

These cost efficient FORJ models are designed for applications having moderate demands for optical performance and life. Due to their lens-less design, they can operate at any wavelength supported by the fiber used in the assembly.

Both models can be combined with our electrical and fluid slip rings, giving a single, compact package for optical signals, electrical power and fluid transfer.

Features

- Provides rotary coupling for a multimode or singlemode fiber link
- Passive bidirectional device
- Low cost
- Can be combined with our electrical slips and fluid unions
- Alternative drive coupling and mounting arrangements are available (consult factory for specification details)
- Connectorized interfaces, for easy fiber cable replacement
- Can be integrated into existing slip ring designs
- Aluminum or anodized aluminum housing
- Rugged design
 - MIL-STD-167-1 ship vibration
 - MIL-STD-810D functional shock (40 g)



Typical Applications

- Cable reelers used in EOD robots
- Material handling systems
- Security cameras

Fiber Optic Rotary Joints (FORJ)

Specifications				
	FO228 (Multimode)		FO282 (Singlemode)	
Fiber Size (Microns)	50/125 or 62.5/125 (consult factory for other sizes)		9/125 SMF-28 (consult factory for other sizes)	
Insertion Loss	Typical < 2.5 dB	Maximum < 4.0 dB	Typical < 2.5 dB	Maximum < 4.0 dB
Rotation Variation	Typical < 0.5 dB	Maximum < 1.0 dB	Typical < 0.5 dB	Maximum < 1.5 dB
Wavelength	Broadband (fiber dependant)			
Rotational Speeds	To 100 rpm. Higher rotational speeds should be discussed with the factory			
Temperature	-40 to +75 deg C. Consult factory for extended range			
Life	500,000 revolutions			
Exterior Surfaces	Aluminum or anodized aluminum			
Vibration	Tested to MIL-STD-167-1 (ships)			
Shock	Tested to MIL-STD-810D			
Terminations	Standard with ST or FC connector receptacles. Can be pigtailed with cable and connectors to meet customer's requirements.			
Pigtail Length	As required			

Hybrid Units

Can be combined with electrical and fluid slip rings

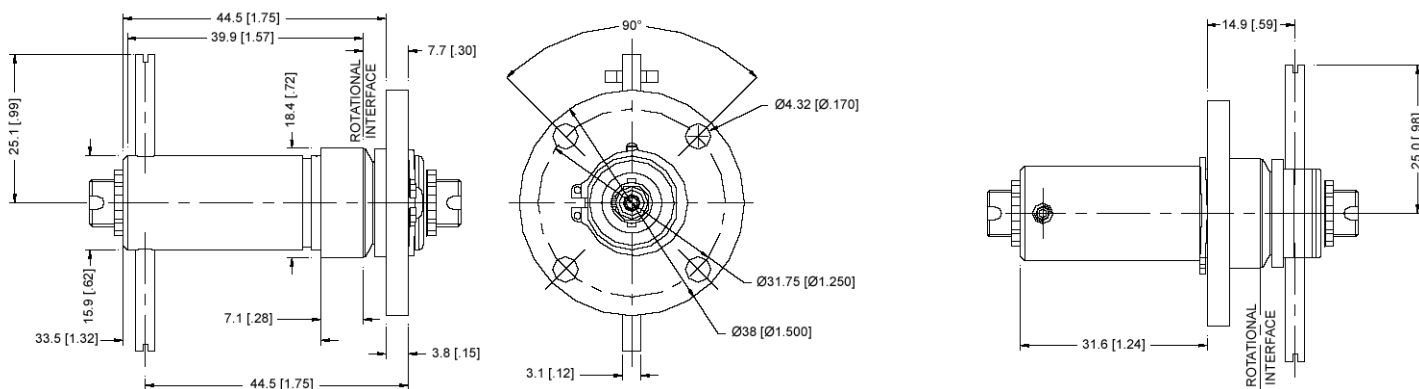
Mounting Options

Available with or without mounting flange (consult factory for details)

Terminations

Built-in FC or ST connector receptacles

FO228 and FO282 Dimensions



Shaft Mounting Arrangement

Body Mounting Arrangement

Dimensions in inches [millimeters]