

FO3585

On-axis fiber optic rotary joint

Description

The FO3585 is our ruggedized single channel multimode fiber optic rotary joint. This part was designed to withstand the most severe environments and has a demonstrated history in both commercial and military applications. The design features an expanded beam optical system to provide minimum insertion loss and rotational variation.

The assembly can be produced with pigtail lengths tailored to the customer's application. Most popular optical connectors are available with this product; please consult the factory about your specific needs. Additional options for this part include mounting flanges and drive pins.

Features

- Provides rotary coupling for multimode fiber links
- Wide operating wavelength range for wavelength multiplexing
- Completely bidirectional
- Available in wide range of fiber sizes and pigtail lengths
- Can be integrated into existing slip ring designs
- Environmentally sealed



Typical Applications

- Cable reels
- Medical systems
- Two axis milling machines
- Robotics

Fiber Optic Rotary Joints (FORJ)

Specifications			Options
Operating Wavelength	830 or 1300 nanometers (customer specified)		<ul style="list-style-type: none"> Flange PIN: 3585015001 Drive PIN: 3585015000
Insertion Loss*	Max. dB	Typical Variation dB	
Fiber Size (Microns):	50 / 125	3.0	0.5
	62.5 / 125	3.0	0.5
	100 / 140	2.5	0.5
	200 / 240	2.0	0.5
Torque	2.0 in-oz		
Side Loading	5 pounds max. (continuous)		
Bend Radius	1.0 inch min.		
Sealing	Environmental		
Rotation Rate	1000 rpm (without seals)		
Operating Temp.	-55° C to +85° C		
Life**	200 million revolutions		
Vibration*	MIL-STD-202 method 201A simple harmonic motion, 0.03 inch amplitude, 10 - 55 Hz		
Shock*	MIL-STD-202 method 213 test condition 1, 100g's, 6ms duration, sawtooth waveform		

* These are minimum performance values to which the design has been subjected. More severe levels are within the design limits.

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Notes:

Modifications to the basic design are possible to alter or enhance operating characteristics. Consult factory for specific applications.

All dimensions are in inches and tolerances unless otherwise specified are .xxx=±.005 .xx=±.01

FO3585 Dimensions

