

# FORJ

## (Fiber Optic Rotary Joint)

A fiber optic rotary joint (FORJ) enables continuous rotation in fiber-optic systems while maintaining stable signal transmission. It supports single-mode or multimode fibers with multiple channels and delivers low insertion loss, low rotational variation, and high reliability.

FORJs are commonly used in radar, surveillance, cable reels, robotics, wind turbines, medical equipment, and military or industrial applications requiring uninterrupted communication during rotation.



FORJ 1ch



FORJ 4ch

## Features & Benefits

- Low Insertion Loss and Low Back Reflection
- Unlimited Continuous Rotation
- High Reliability & Long Lifetime
- Multi-Channel Capability
- Compact and Rugged Design
- EMI Immunity

## Application

- Military and Aerospace Rotating Radar Platforms
- Surveillance Cameras, Infrared Systems and Targeting Devices
- Robotics & Automated machinery
- Medical Equipment
- Test & Measurement Equipment

# Product Specification

## FORJ 1CH OPTICAL CHARACTERISTIC

	SINGLE MODE	MULTI MODE
Wavelength(nm)	1280nm ~ 1650nm	850nm ~ 1310nm
Insertion Loss(dB)	≤ 1.5dB	≤ 1.0dB
Return Loss(dB)	UPC ≥ 45dB, APC ≥ 50dB	UPC ≥ 30dB, APC ≥ 35dB
Maximum Speed(RPM)	1000RPM	1000RPM
Working Temperature(°C)	-40 to 80 °C	
Ripple(dB)	±0.5dB	
Housing Material	Stainless Steel	
Turning Radius	Infinite Rotation	
Exterior Surfaces	IP67	
Vibration	Tested to MIL-STD-167-1 (Ships)	
Shock	Tested to MIL-STD-810D	

## FORJ 4CH OPTICAL CHARACTERISTIC

	SINGLE MODE	MULTI MODE
Wavelength(nm)	1280nm ~ 1650nm	850nm ~ 1310nm
Insertion Loss(dB)	≤ 3.0dB	≤ 3.0dB
Return Loss(dB)	UPC ≥ 45dB, APC ≥ 50dB	UPC ≥ 30dB, APC ≥ 35dB
Maximum Speed(RPM)	300RPM	300RPM
Working Temperature(°C)	-40 to 80 °C	
Ripple(dB)	±1.0dB	
Housing Material	Stainless Steel	
Turning Radius	Infinite Rotation	
Exterior Surfaces	IP67	
Vibration	Tested to MIL-STD-167-1 (Ships)	
Shock	Tested to MIL-STD-810D	



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