

Fiber Optic Rotary Joint Slip Ring — 4 Channel

1310/1550 nm (SM), 850/1310 nm (MM),



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Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life
- Small size, light weight, high sealing class
- No electromagnetic interference

Applications

- Robot
- Material transfer system
- Rotating turret on vehicle
- Remote control system
- Radar signal
- Marine equipment and ship system
- Medical system
- Video monitoring system



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Rev 07/30/26

Fiber Optic Rotary Joints (FORJs), also known as fiber optic slip rings, provide a continuous optical connection between stationary and rotating optical fibers while allowing unrestricted 360° rotation. They are designed for applications requiring the transmission of optical data, communication signals, or laser power between static and rotating platforms during continuous or intermittent rotation. Our FORJs are engineered for low insertion loss, low insertion loss variation, low back reflection, high rotational reliability, and high-speed optical transmission. Available in single-channel and multi-channel configurations, they support both single-mode and multimode fibers for demanding applications.

Specifications

Parameter	Min	Typical	Max	Unit
Wavelength		± 50		nm
Insertion Loss (@23°C)			4	dB
Insertion Loss Ripple		2		dB
Return Loss	SM (1310/1550 nm)	≥ 50 (APC), ≥ 40 (PC)		dB
	MM (850/1310 nm)	≥ 30 (PC)		dB
Power			0.5	W
Rotating Speed			300	rpm
Working Life		> 100 million		turn
Rotating Torque		≤ 0.01		N.m
Working Temperature	-20 (-60)		+60 (+85)	°C
Storage Temperature	-50		+85	°C
Weight		1.6		kg
Protection Grade		IP65		

P +1 781-935-1200

E sales@agiltron.com

W www.agiltron.com

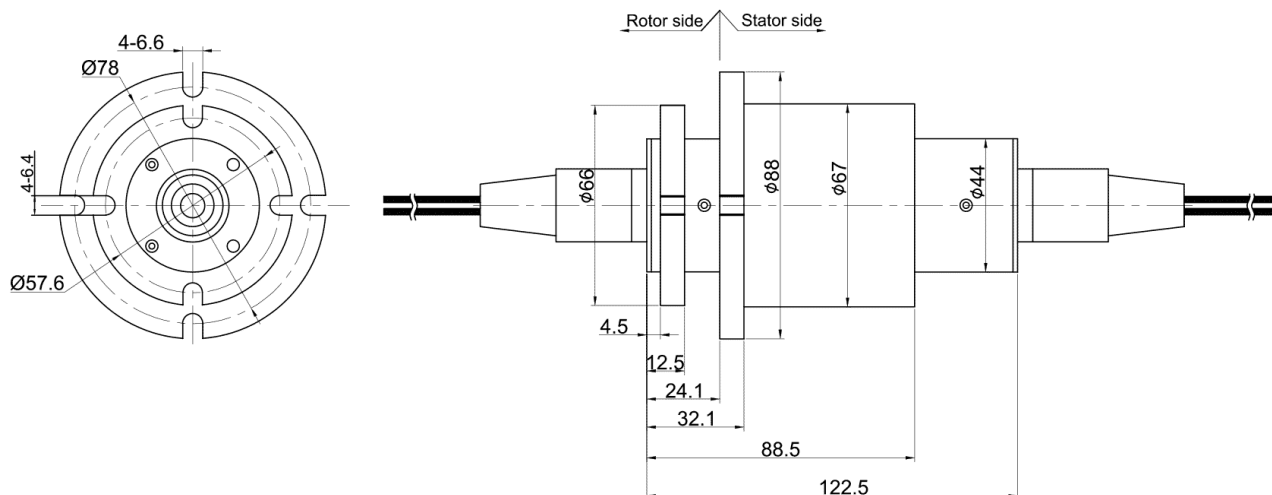
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Mechanical Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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Ordering Information (Part Number)

	FF	4	☐	☐ ☐	☐	☐	☐
Prefix	Configuration	# Channel	Wavelength	Fiber Type	Fiber Cover	Fiber Length	Connector ^[1]
FORJ-	Fiber = FF	4 = 4	1310/1550nm = S 850/1310nm = M Special = 0	SM28 = 01 50/125 = 05 62.5/125 = 06 105/125 = 0A Special = 00	3mm tube = 3 0.9mm tube = 2 Special = 0	0.5m = 2 1.0m = 3 Special = 0	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/UPC = U Special = 0