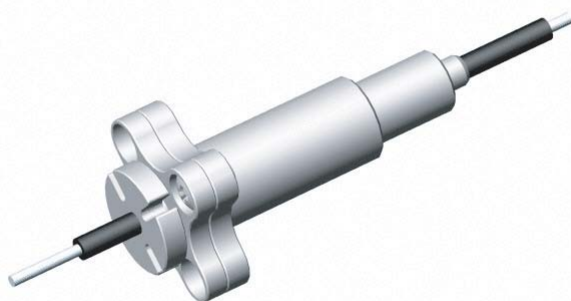


The logo for Princetel, featuring the word "Princetel" in a white, italicized, sans-serif font on a blue square background.

## **MicroJx Miniature Fiber Optic Rotary Joint**



[www.princetel.com](http://www.princetel.com)

**Princetel, Inc.**  
**4 Princess Rd Ste 209**  
**Lawrenceville, NJ 08648**  
**609.895.9890**  
**fax 609.895.9552**  
**[info@princetel.com](mailto:info@princetel.com)**



# MicroJx Miniature Fiber Optic Rotary Joint

## Description

Princetel has broken the record again by pushing the size limit to a new level! MicroJx series Fiberoptic Rotary Joint (FORJ) is the world's smallest and lightest. It features extremely low insertion loss and unmatched return loss performance for both single- and multimode fibers. MicroJx is the only FORJ commercially available that provides uniform spectral transmission over a 1000 nm range. The standard package comes with

pressure compensation for deep sea applications.

FORJs, sometime called fiber optic slip rings or connectors, allow uninterrupted transmission of optical signal while rotating along the fiber axis. FORJs are widely used in guidance systems, robotic systems, Medical equipment, oil exploration, ROVs, sensing systems, and many other field applications where a twist-free fiber cable is essential.

## Specification

Wavelength range	635-1650 (broadband!)
Insertion loss	<2 dB (typical: <0.7 dB)
Insertion loss variation	<0.5 dB (typical: 0.3 dB)
Return loss (SM & MM)	>45 dB
Maximum rotation speed	100 rpm
Pressure compensation	10,000 psi
Maximum load	10 N for 900 um buffer fiber
Optical power handling	23 dBm
Operating temperature	-20 to 65 C
Storage temperature	-40 to 85 C

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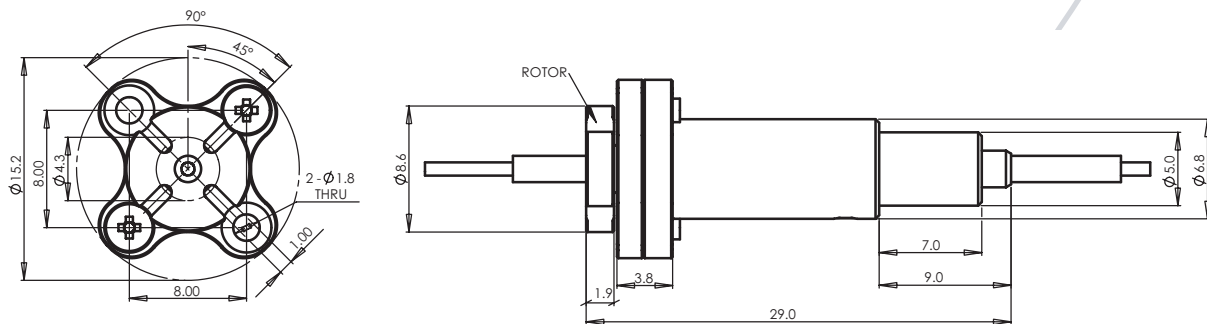


# MicroJx Miniature Fiber Optic Rotary Joint

## Physical

Package type	Pigtailed (See our FORA page for receptacle versions)
Housing Material	Stainless steel
Fiber types	Singlemode or multimode (See fiber code for details)
Jacket types	900 um tight buffer for SMF28 (loose tube other wise)
Connector types	FC, SC, ST, LC, FC/APC, or SC/APC
Dimensions	6.8 mm dia x 29 mm length
Weight	<10 g
Pressure compensation	10,000 psi

## Mechanical



Unit: mm

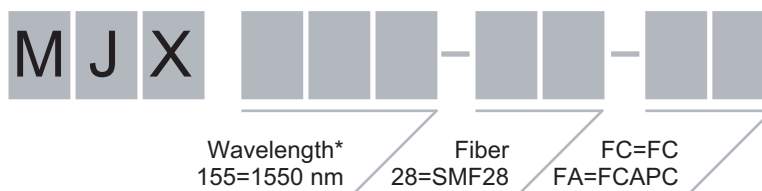
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# MicroJx Miniature Fiber Optic Rotary Joint

## Part Number



\* For testing purpose only

## Wavelength and Fiber Code

Wavelength	Fiber
165=1625 nm	28=CorningSMF28 (1290=1650 nm)
162=1625 nm	13=Fujikura SM13 PANDA fiber
159=1590 nm	15=Fujikura SM15 PANDA fiber
155=1550 nm	56=3M FS-SN5624 (980 nm)
153=1530 nm	42=3M FS-SN4224 (850 nm)
148=1480 nm	32=3M FS-SN3224 (635 nm)
131=1310 nm	50=50/125 multimode
980=980 nm	62=62.5/125 multimode
850=850 nm	10=100/125 multimode
780=780 nm	20=200/240 multimode
670=670 nm	40=400/425 multimode
650=650 nm	60=600/630 multimode
635=635 nm	01=1000 um Mitsubishi plastic

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