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**FORJ: Miniature fiber rotary joints (MicroJx Series)**

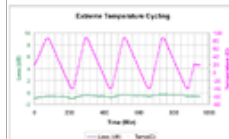
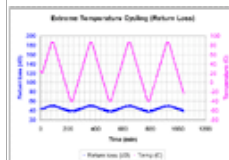
 MJX-155-28  
MJX-155-50

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MJX10-155-28

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MJX-SAP-131-28

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 IL temperature cycling  
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 RL temperature cycling  
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MJX series Fiber Optic Rotary Joints (FORJs) are extremely compact. So small they can even be used in the middle of fluid flows. They are the world's smallest and lightest. They feature very low insertion loss and impressive return loss performance. Model MJXA typically yields return loss figures higher than 60 dB. Similar to R series and RFCX series, the MJX Series FORJs contain fluid, which ensures condensation free operation at extreme low temperatures. It is also ideal for high humidity environments.

The standard packages are dust and water tight for harsh environment applications. They are designed to tolerate both occasional water splash and shallow water (or oil) immersion. These rugged devices can operate under arctic temperature environment (See insertion loss temperature cycling plot on the left).

This model's low static and dynamic torques makes it an ideal choice for low torque applications such as optogenetics. For pigtail-free option consider Princetel's model RFCX, RFC, or RST. In those cases, remember to specify "low torque".

MJX-SAP is specifically designed for OCT (Optical Coherent Tomography) applications. Its mounting scheme is identical to MJP-SAP model FORJ. We offer gear (shown in picture) or pulley as driving mechanism. The receptacle can be SC/APC (shown in picture), FC/APC, or LC/APC.

Note: All insertion loss and return loss measurements are performed by joining the FORJ to the light source through fusion splice (without the use of connectors). Insertion loss of all receptacle type of FORJs, such as RST, RFC, and RFCX, are measured with connectors of similar type. Their return loss is not measured.

**SPECIFICATIONS**

PARAMETERS	VALUES
Wavelength range	650-1650 nm
Insertion loss	<2 dB (typical: <0.5 dB)
Insertion loss ripple	<+/-0.25 dB (typical: +/-0.15 dB)
Return loss (SM)	>40 dB (typical: 45 dB, 23 C), >55 dB (MJXA)
Maximum speed	2,000 rpm
Water submersion	1 m, (model RPC for pressure compensation)
Pulling strength	10 N (900 um buffer)
Start up torque	<0.01 Nm
Estimated life cycle	200-400 million revolutions
Optical power handling	5 mW/standard; 23 mW/optional
Working temperature	-40 to 85 C
Storage temperature	-50 to 85 C
Package style	Pigtails on both ends
Housing material	Stainless steel
Fiber types	Single or multimode w/3 mm jacket (Kevlar/PVC)
Connector types	FC, SC, ST, SMA, or LC (and APC finishes)
Dimensions	6.8 mm dia. x 28 mm length
Weight	10 g
Vibration	MIL-STD-167-1A
Mechanical shock	MIL-STD-810G
IP rating	IP 68 for all models

**CREATE YOUR PART NUMBER**

MJX- wavelength code- fiber code- connector code  
MJXA- wavelength code- fiber code- connector code

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