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Introduction of TRUESCI Fiber Optic Rotary Joints (FORJ)

Fiber optic rotary joint (FORJ), also called fiber optic slip ring, is the excellent solution to transmit optical signals across the rotating devices and to transmit a high volume of data efficiently. FORJs are available in single, dual and multi-channel options as well as singlemode or multimode to meet various applications. We TRUESCI is a first-class manufacturer to supply reliable fiber optic rotary joints with high quality.

1)The SFRJ Series of TRUESCI FORJs.

SFRJ single-channel fiber rotary joint is a general model, including four extended models of SFRJA, SFRJB, SFRJD and SFRJE. SFRJD is a miniature type with only 6.8mm hole diameter. SFRJE is a flange port type with no pigtail at both sides. While the difference of the SFRJA and SFRJB lies in the shifting fork drive mode.



Key information to be provided to make us understand your demand of FORJs.

Please understand how to create our part number, which can provide the key information of the FORJ.

Part number format: **SFRJ**①-②-③-④-⑤-⑥

Example: SFRJA-9/125-1310-1m-3.0-FC/PC

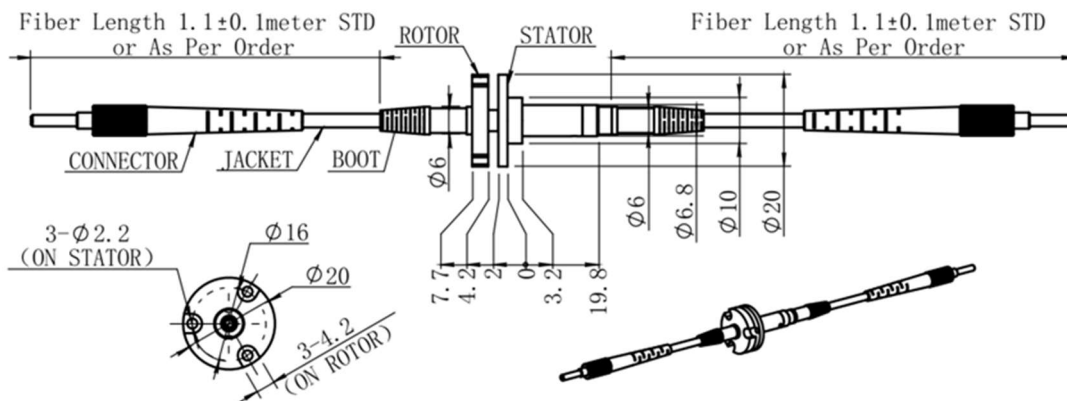
The meaning of the part number is as below:

① Extension model	② Fiber type	③ Wavelength	Other factors of fiber
A	9/125 (SM)	1550	④Fiber length: 1m or As Per Order
B	50/125 (MM)	1310	⑤Jacket types: 0.6, 0.9, 2.0, 3.0
D	62.5/125 (MM)	850	⑥Connector type: FC, ST, SC, LC (PC and APC)
E			

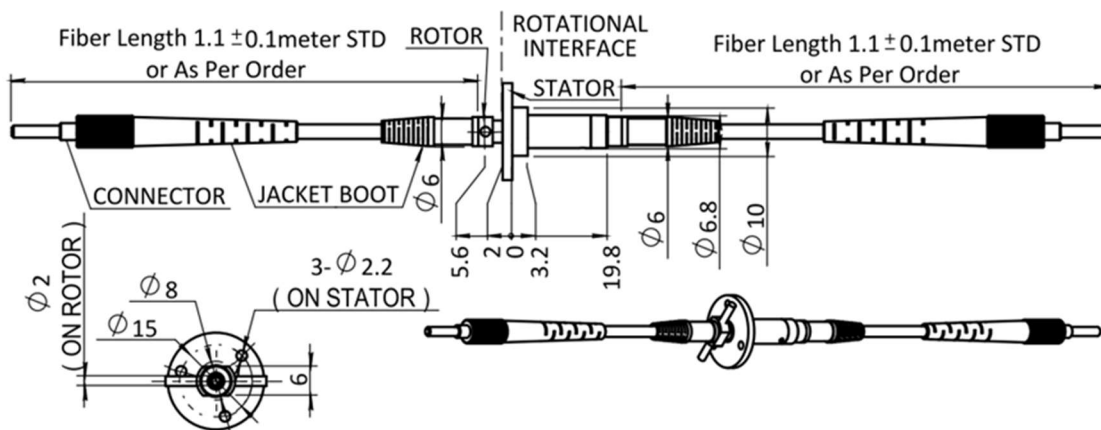
Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50
Wavelength (nm)	1310 or 1550 (SM); 850 or 1310 (MM)
Insertion loss, 23°C (dB)	≤1.5
Insertion loss ripple (dB)	≤0.7
Return loss (dB)	≥40 (SM)
Optical power handling (w)	≤0.5
Weight	About 20g
Speed (rpm)	≤2000
Estimated life cycle	2*10 ⁸
Working temperature (°C)	-40~70 (More options available upon request)
Storage temperature (°C)	-45~80
IP grade	IP54 (IP65, IP67 can be selected)
Vibration and Mechanical shock	MIL 810G

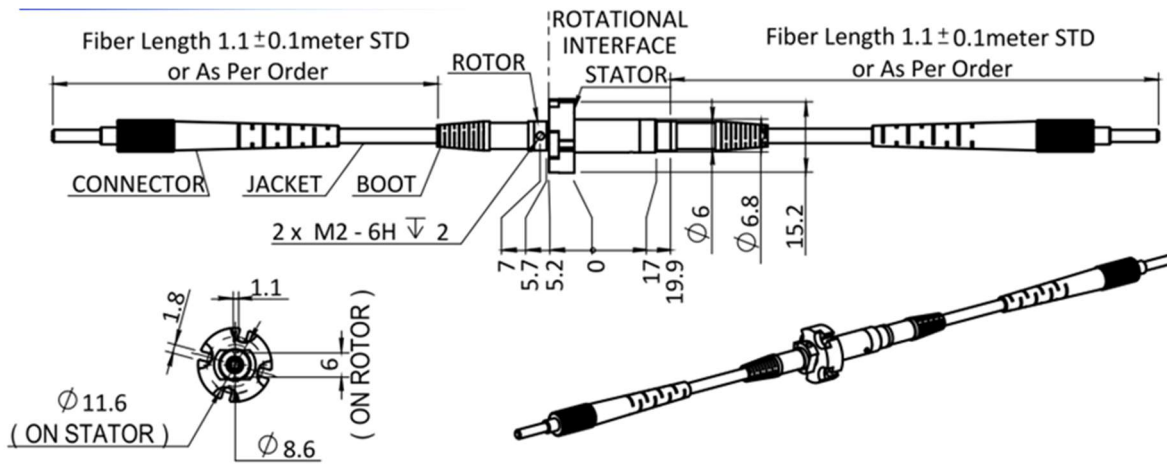
SFRJA model size:



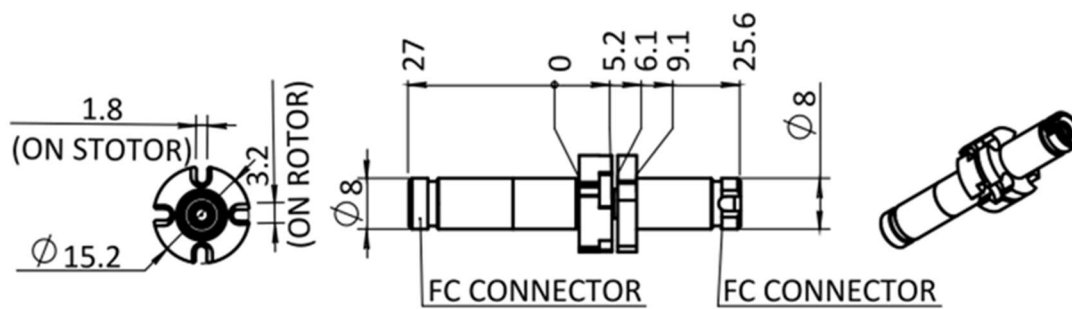
SFRJB model size:



SFRJD model size:

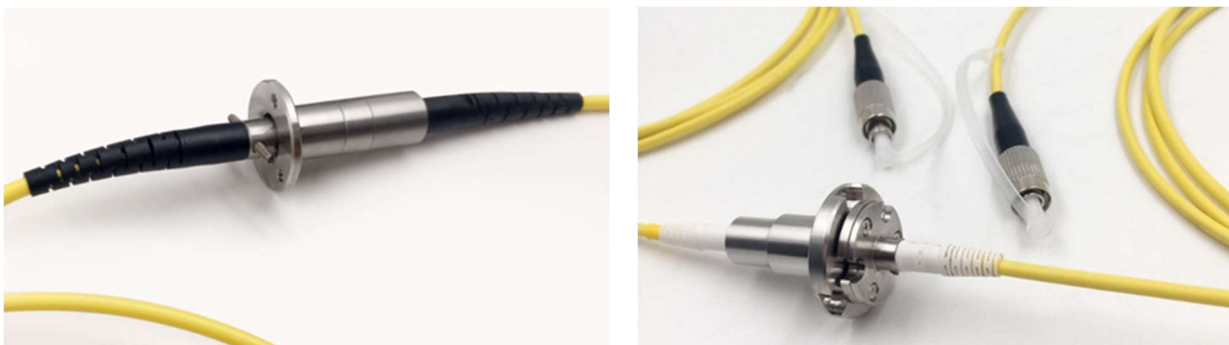


SFRJE model size:



2)The SFRJS High Speed Series of TRUESCI FORJs.

Our SFRJS series high speed single channel fiber rotary joint was launched in the year 2014, with a maximum speed of 25000rpm, which is used in medical and high speed turntable field. There are three extended version models SFRJSB, SFRJSC and SFRJSG. The SFRJSB is a miniature model with the hole diameter of only 10mm.



Key information to be provided to make us understand your demand of SFRJS series.

Please understand how to create our part number, which can provide the key information of the SFRJS series.

SFRJS①-②-③-④-⑤-⑥

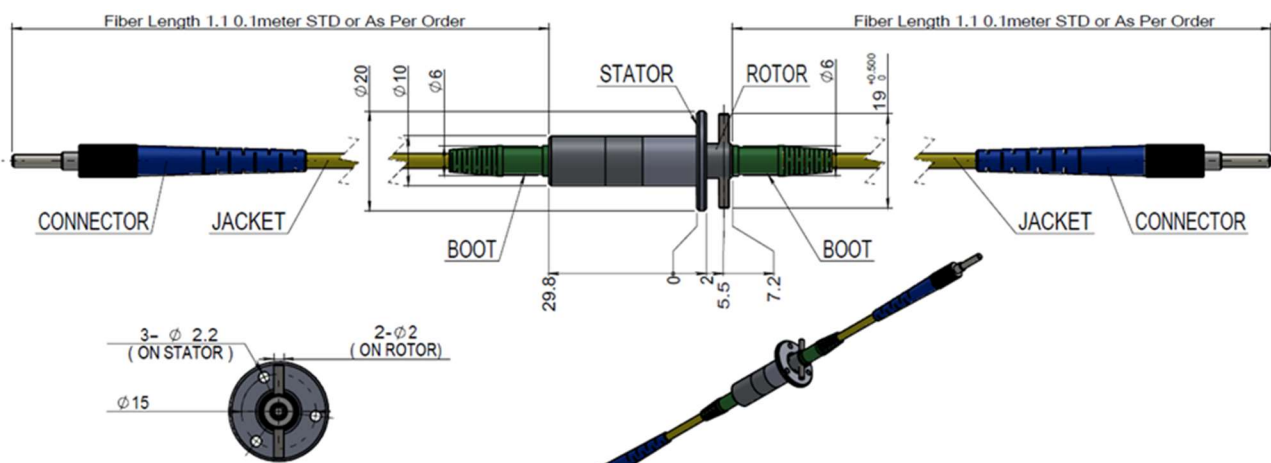
Example: SFRJSB-9/125-1550-1m-Φ3.0-FC/PC

① Extension model	②Fiber type	③Wavelength	Other factors of fiber
B	9/125 (SM)	1550	④ Fiber length: 1m or As Per Orde ⑤ Jacket types: 0.6, 0.9, 2.0, 3.0 ⑥ Connector type: FC, ST, SC, LC (PC and APC)
C	50/125 (MM)	1310	
G	62.5/125 (MM)	850	

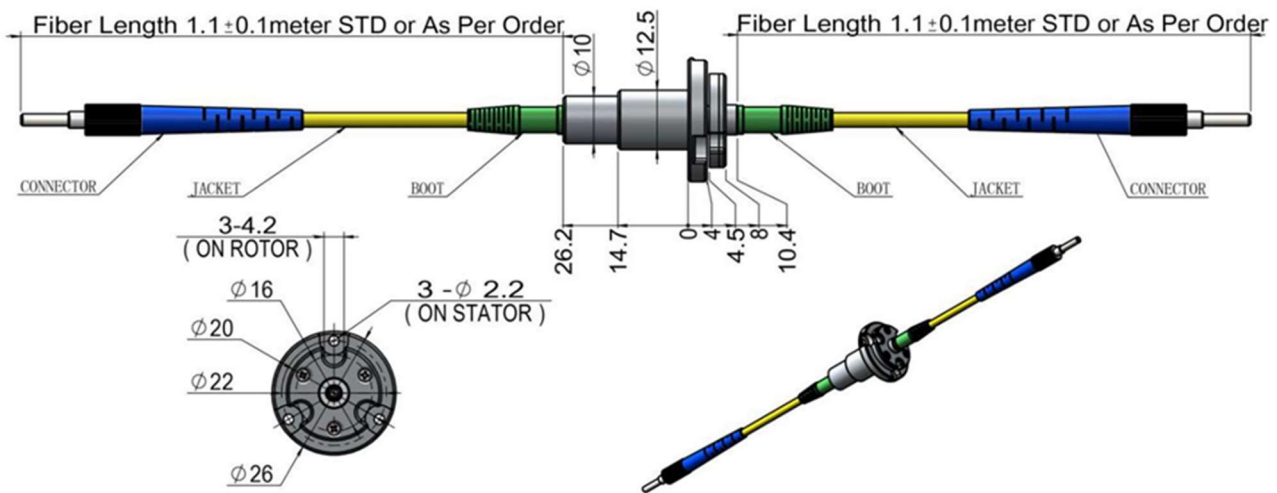
Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50
Wavelength (nm)	1310 or 1550 (SM); 850 or 1310 (MM)
Insertion loss, 23°C (dB)	≤1.5
Insertion loss ripple (dB)	≤0.7
Return loss (dB)	≥40 (SM)
Optical power handling (w)	≤0.5
Weight	About 50g
Speed (rpm)	2000 (Higher speed can be customized)
Estimated life cycle	5*10 ^8
Working temperature (°C)	-40~70 (More options available upon request)
Storage temperature(°C)	-45~80
IP grade	IP54
Vibration and Mechanical shock	MIL 810G

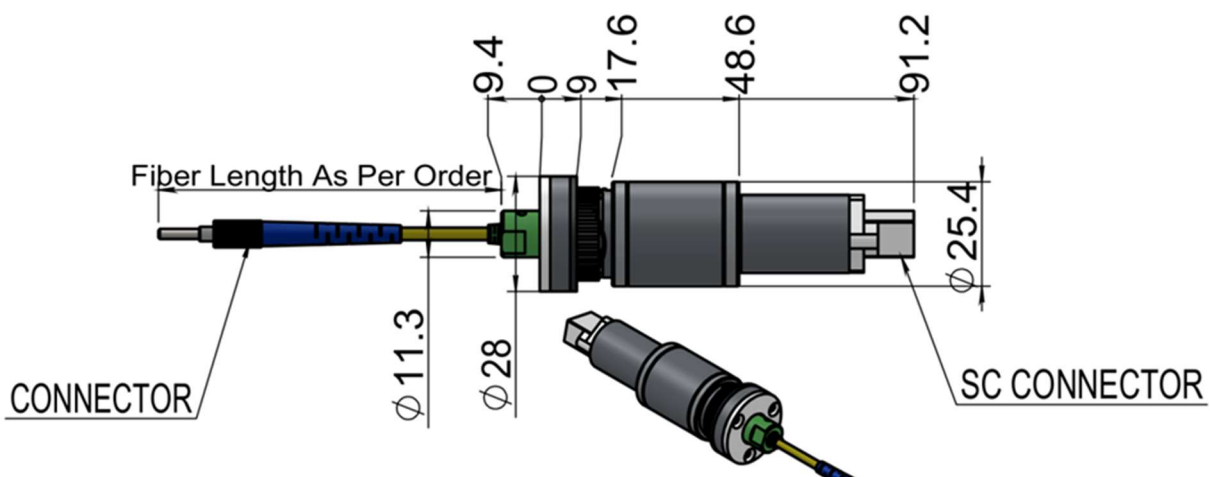
SFRJSB model size:



SFRJSC model size:



SFRJSG model size:



3)The SFRJP Series of TRUESCI FORJs.

Our SFRJP series FORJs are special type optic fiber slip rings that adopt large core optic fibers of 25/400, 105/125, 200/220, 800/1000, and etc., or other specified optic fiber. The FORJs made from above mentioned types of optic fiber can be used in application of high transmitting power. It can use any type of packaging size of SFRJA and SFRJB.



Key information to be provided to make us understand your demand of SFRJP series.

Please understand how to create our part number, which can provide the key

information of the SFRJP series.

SFRJP①-②-③-④-⑤-⑥/⑦

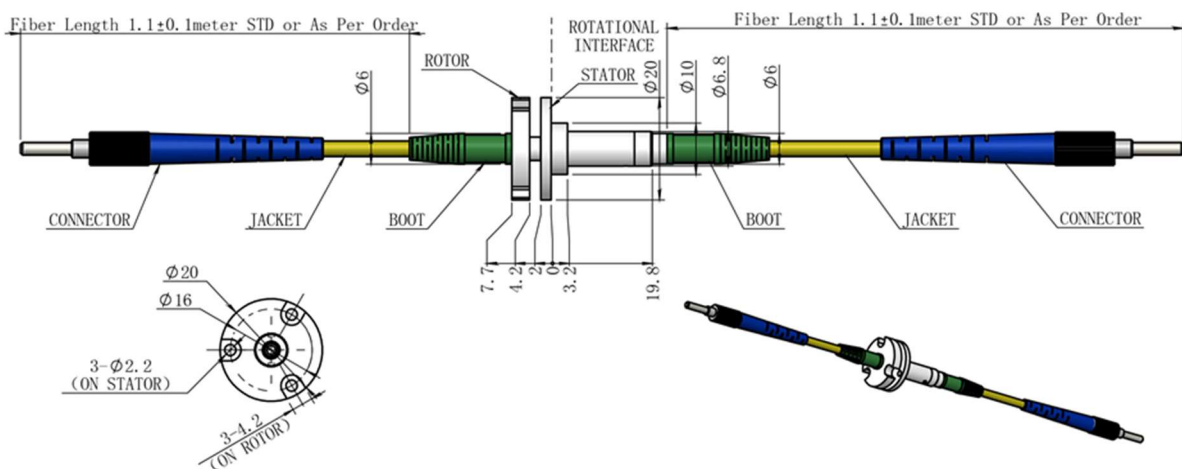
Example: SFRJPA-105/125-1064-1.2m-Φ3.0-FC/PC

①Extension model	②Fiber type	③Wavelength	Other factors of fiber
A (Fork Plate Type)	25/400 (FM)	850	④Fiber length: 1.2m or as per order
B (Fork Pin Type)	105/125 (MM)	1064	⑤Jacket types: 0.6, 2, 3, K
	200/220 (MM)	1550	⑥ Connector type: FC, ST, SC, LC, N(without connector)
	800/1000 (MM)		⑦End surface type: PC, APC

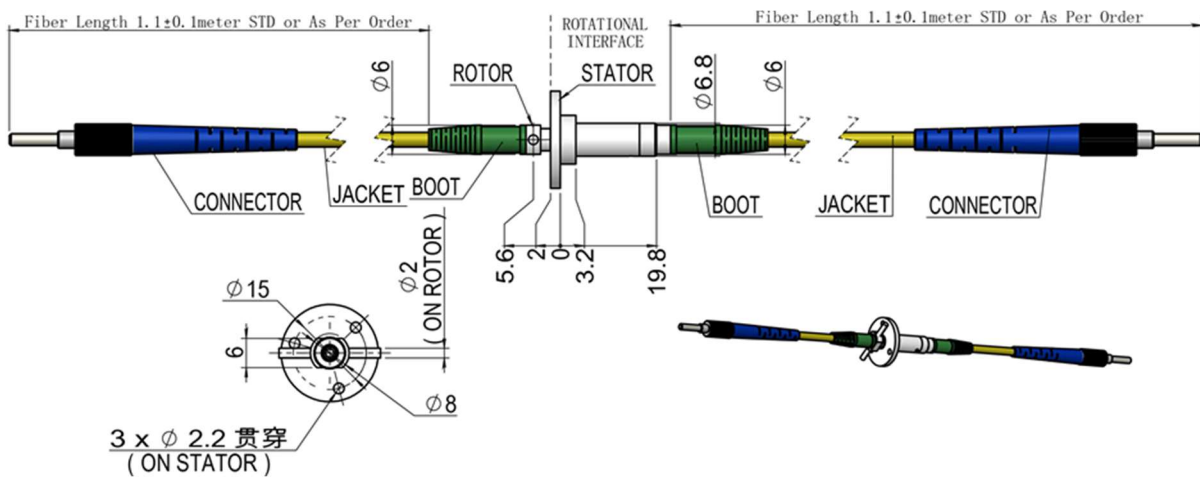
Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50nm
Wavelength (nm)	650 to 1650nm
Insertion loss, 23℃ (dB)	≤2.0dB
Insertion loss ripple (dB)	≤1.0dB
Return loss (dB)	≥30dB
Optical power handling (w)	≤0.5
Bearing tension	≤12N
Speed (rpm)	0-1000rpm
Estimated life cycle	200million rotations
Working temperature (℃)	-40~70 (More options available upon request)
Storage temperature(℃)	-50~85
Weight	20g (not including pigtail cord and connector)
IP grade	IP54 (option IP65 and IP67)
Vibration and Mechanical shock	MIL 810G

SFRJPA model size:

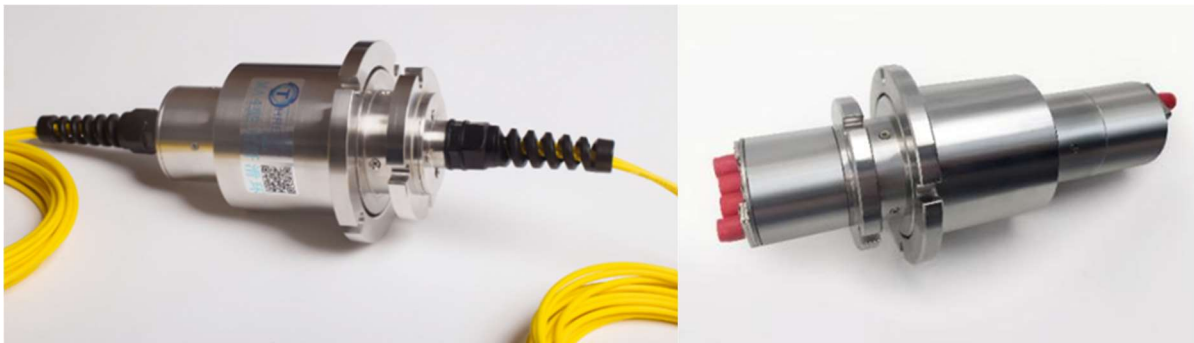


SFRJPB model size:



4)The MFRJ Series of TRUESCI FORJs.

Our MFRJ series FORJs are dense channels products, which are available with single mode fiber, multi-mode fiber or mixed version with both single mode and multi-mode. This product is also available with environmental resistant level (shock, vibration, high and low temperature) for option. MFRJ series cover MFRJA and MFRJB extended version model. The MFRJA model is the pigtail type while the MFRJB model is with the flange port.



Key information to be provided to make us understand your demand of MFRJ series.

Please understand how to create our part number, which can provide the key information of the MFRJ series.

MFRJA (or MFRJB) ①-②-③-④-⑤-⑥-⑦/⑧

Example 1: MFRJA6-9/125-1310-1.2m-Φ2.0K-FC/PC;

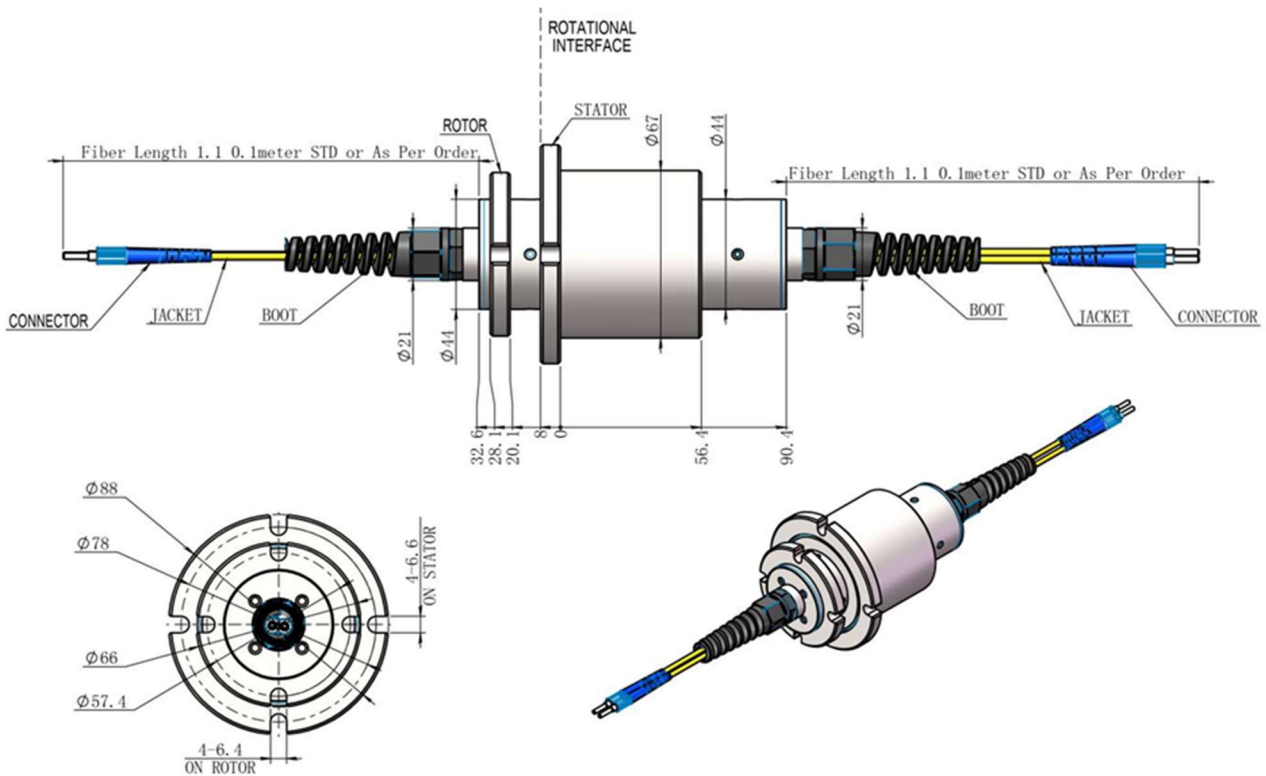
Example 2: MFRJB4-9/125-1550-FC/PC

①Channels	②Fiber type	③Wavelength	Other factors of fiber
MFRJA: 2~31	9/125 (SM) 50/125 (MM)	1550 1310	④Fiber length: 1m or As Per Orde ⑤Jacket types: 0.6, 2.0, 3.0
MFRJB: 2~4	62.5/125 (MM)	850	⑥Connector type: FC, ST, SC, LC (PC and APC)

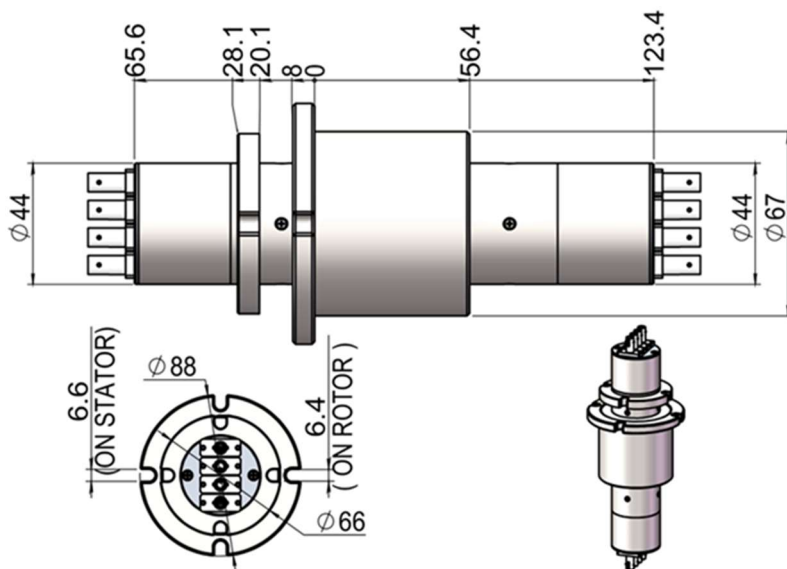
Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50
Wavelength (nm)	1310 or 1550 (SM); 850 or 1310 (MM)
Insertion loss, 23°C (dB)	≤4.0
Insertion loss ripple (dB)	≤2.0
Return loss (dB)	≥40(SM)
Optical power handling (w)	≤0.5
Weight	About 1.6kg
Maximum speed (rpm)	300
Estimated life cycle	1*10 ⁸
Working temperature (°C)	-40~70 (More options available upon request)
Storage temperature (°C)	-45~80
IP grade	IP54 (IP65, IP67 can be selected)
Vibration and Mechanical shock	MIL 810G

MFRJA model size:



MFRJB model size:



5)The MFRJM Series of TRUESCI FORJs.

Our MFRJM series FORJs are the smallest multi-channel optic fiber slip rings with only 20mm hole size, which can achieve up to 7 channels. They are available with single mode fiber, multi-mode fiber or mixed version with both single mode and multi-mode. MFRJM series are also available with environmental resistant level (shock, vibration, high and low temperature) for option.

Key information to be provided to make us understand your demand of MFRJM series.

Please understand how to create our part number, which can provide the key information of the MFRJM series.

MFRJ M ①-②-③-④-⑤-⑥/⑦

Example: MFRJ M 4-9/125-1310-1-Φ2.0K-FC/PC

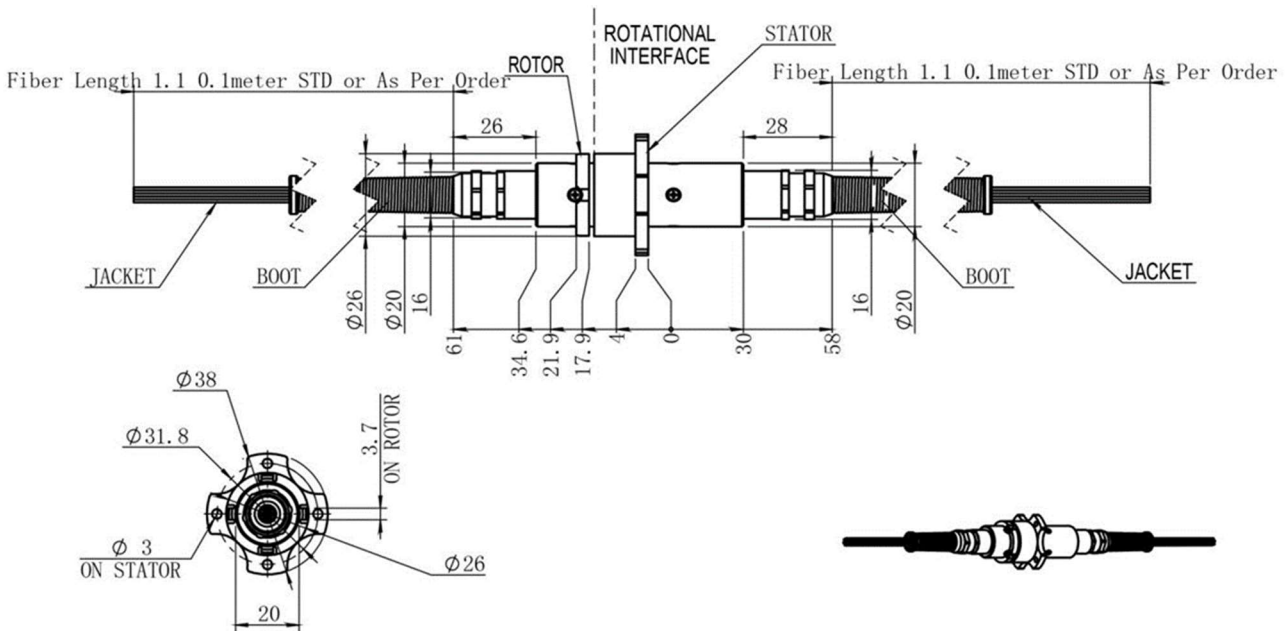
①Channel	②Fiber type	③Wavelength	Other factors of fiber
2~7	9/125 (SM)	1550	④Fiber length: 1m or As Per Order
	50/125 (MM)	1310	⑤Jacket types: 0.6, 2.0, 3.0
	62.5/125 (MM)	850	⑥Connector type: FC, ST, SC, LC (PC and APC)

Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50
Wavelength (nm)	1310 or 1550 (SM); 850 or 1310 (MM)
Insertion loss, 23°C (dB)	≤4.0
Insertion loss ripple (dB)	≤2.0
Return loss (dB)	≥40 (SM)
Optical power handling (w)	≤0.5

Weight	About 1.6kg
Maximum speed (rpm)	300
Estimated life cycle	1*10 ^8
Working temperature (°C)	-40~70 (More options available upon request)
Storage temperature (°C)	-45~80
IP grade	IP54 (IP65, IP67 can be selected)
Vibration and Mechanical shock	MIL 810G

MFRJM model size:



6)The MFRJMX Series of TRUESCI FORJs.

Our MFRJMX series FORJs are super integrated multi-channel optic fiber slip rings that can contain 2-31 channels of fibers. And their installed diameter of product is only 38mm. It is the optic fiber slip ring with the smallest diameter among slip rings with above 8 channels. This series is very suitable for the applications of small installation space. They are available with single mode fiber, multi-mode fiber or mixed version with both single mode and multi-mode. They have excellent optical performance.



Key information to be provided to make us understand your demand of

MFRJMX series.

Please understand how to create our part number, which can provide the key information of the MFRJM series.

MFRJ MX ①-②-③-④-⑤-⑥/⑦

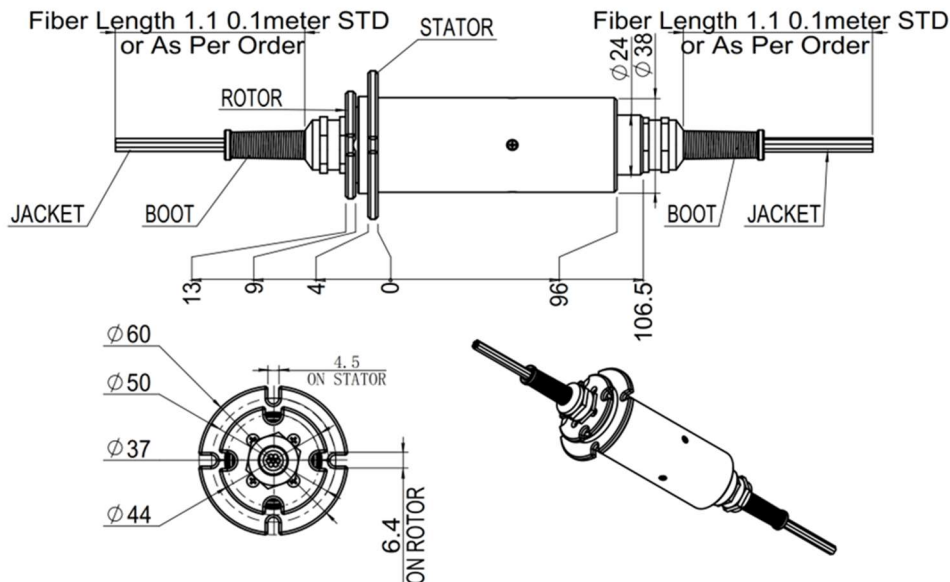
Example: MFRJ MX 8-9/125-1310-1-Φ2.0K-FC/PC

①Channel	②Fiber type	③Wavelength	Other factors of fiber
2~31	9/125 (SM)	1550	④Fiber length: 1m or As Per Order
	50/125 (MM)	1310	⑤Jacket types: 0.6, 2.0, 3.0
	62.5/125 (MM)	850	⑥Connector type: FC, ST, SC, LC (PC and APC)

Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50
Wavelength (nm)	1310 or 1550 (SM); 850 or 1310(MM)
Insertion loss, 23°C (dB)	≤4.0
Insertion loss ripple (dB)	≤2.0
Return loss (dB)	≥40 (SM)
Optical power handling (w)	≤0.5
Weight	About 620g
Maximum speed (rpm)	300
Estimated life cycle	1*10 ⁸
Working temperature (°C)	-40~70 (More options available upon request)
Storage temperature (°C)	-45~80
IP grade	IP54 (IP65, IP67 can be selected)
Vibration and Mechanical shock	MIL 810G

MFRJMX model size:



7)The FC-25 Coaxial Collimator

Our FC-25 coaxial collimator adopts ceramic element parts, with exactly the same size as the standard SC connector plug core, so it can use the general ceramic bushings to realize optical alignment. The FC-25 coaxial fiber collimator has very high coaxial accuracy and can achieve low insertion loss (less than 1dB) connection by just locating the outer circle of the element parts.

The FC-25 coaxial fiber collimator can be made into single mode or multi-mode.

Key information to be provided to make us understand your demand of FC-25 Coaxial collimator.

Please understand how to create our part number, which can provide the key information of the FC-25 coaxial collimator.

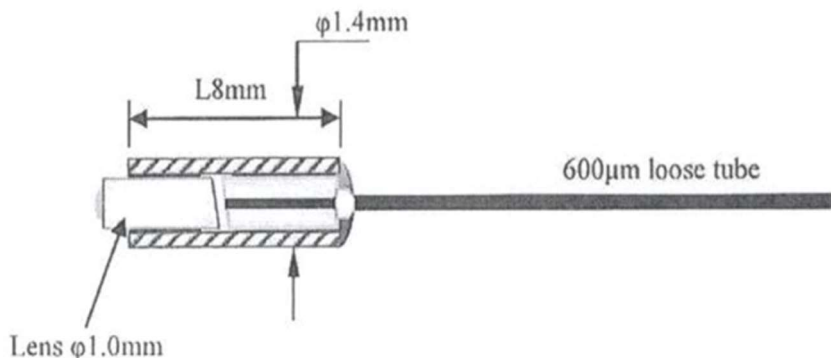
FC-25-①-②-③-④-⑤-⑥

Example: FC-25-9/125-1310-1-Φ0.6-FC/PC

①Fiber type	②Wavelength	③Work distance	Other factors of fiber
9/125 (SM)	850	upon request	④Fiber length: 1m or As Per Order
50/125 (MM)	1310		⑤Jacket types: 0.6, 2.0
62.5/125 (MM)	1550		⑥ Connector type: FC, ST, SC, LC (PC and APC)

Specifications:

PARAMETERS	VALUES
Bandwidth (nm)	±50nm
Wavelength (nm)	850~1650nm
Insertion loss (dB)	≤1.0
Return loss (dB)	≥40(SM)
Power handling (w)	≤0.5
Work distance (mm)	10~100
Working temperature (°C)	-20~+60
Storage temperature (°C)	-40~+80
IP grade	IP54 (IP65, IP67 can be selected)



8)The Single Mode Optical Fiber Collimator

Our single mode optical fiber collimator is the basic part of micro optical components such as DWDM filters, isolators, circulators, optical switches, and etc.



Key features:

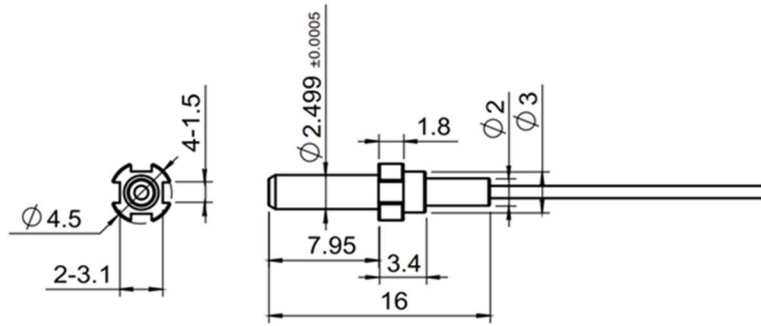
- Low insertion loss
- High return loss
- High stability and reliability

Applications:

- Micro optical components
- Test equipment

Specifications:

PARAMETERS	VALUES	
Wavelength (nm)	1310±40 & 1550±40	
Insertion loss (dB)	≤0.3	≤0.4
Return loss (dB)	≥60	
Power handling (w)	≤0.5	
Work distance (nm)	10	65
Beam diameter (nm)	≤0.45	
Working temperature (°C)	-20~+75	
Storage temperature (°C)	-40~+85	
Fiber type	G657A2 with Φ0.6mm White loose tube	
Fiber length (m)	≥2 (or As Per Orde)	
Connector type	FC, SC, LC	
Dimensions (mm)	Glass tube: Φ1.4*L8	



In case you have any demand of our products, please feel free to contact us with below contacting information:

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