



## General Description

Fiber optical rotary joint also can be called fiber optical connector or slip ring, which would be designed for the most demanding requirements and tested for those rugged environment and super optical performance. This type of rotary joint adopt fiber as a data transmission media that provide excellent technical rotary solution for specific customers. Fiber optical rotary joint can improve mechanical properties, simplifying system operation to avoid damage of fiber during operation. Also it could be combined with traditional electrical slip ring to make hybrid rotary joint to transfer power, high speed data and video signal.

## Features:

1. Full sealed structure
2. Compact size and package
3. High return loss and low crosstalk
4. High speed data transmission and low resistance
5. Custom solution available

## Option:

1. Single mode or Multi-model
2. Single channel design or Multi-channel design
3. Electrical slip ring with FORJ combination
4. Operating in harsh and high shock environment
5. Integrated power channel and signal channel
6. Fiber wavelength & fiber type
7. Connector type & fiber cable length

## Application:

1. Robotics
2. Fiber optical cable reels
3. Medical equipment
4. Video surveillance system
5. High speed transmission system
6. Marine propulsion system

## FORJ-01

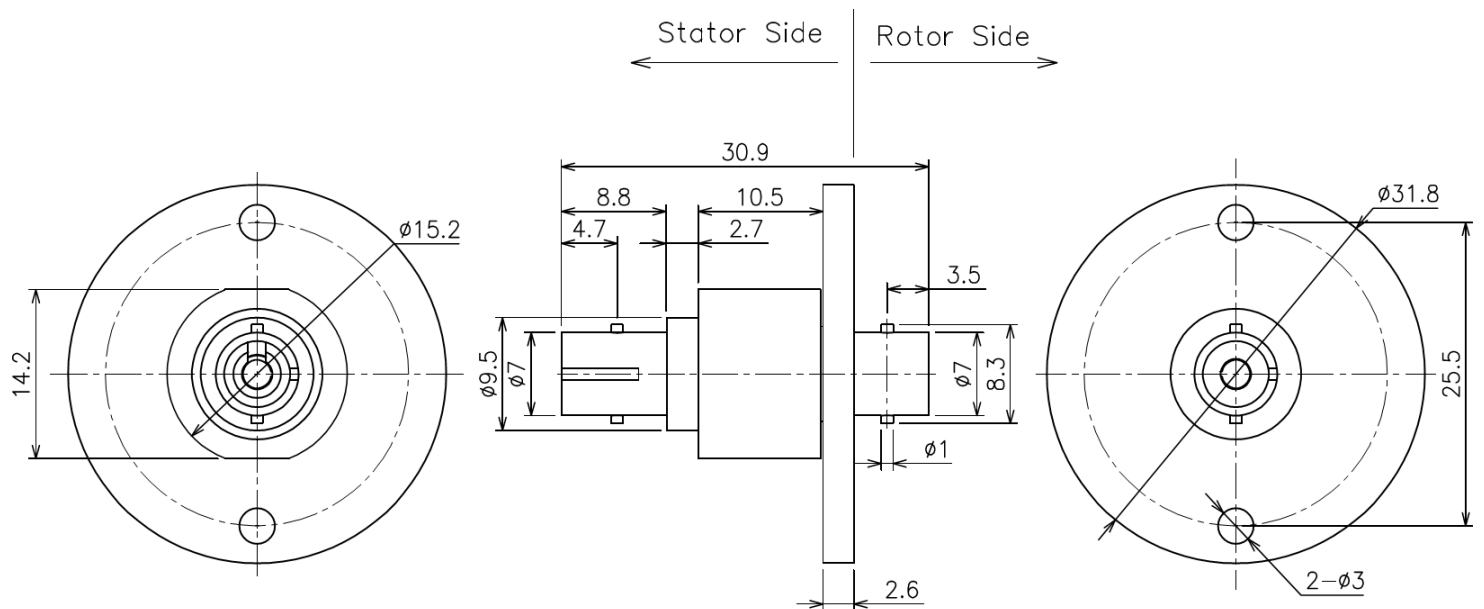
### Specification:

Specification	Value
Channel	1
Operating Speed	0-2000rpm
Estimated Life Time	200- 400 million rotations
Work Temperature	-40 C -+85 C
Stock Temperature	-50 C -+85 C
Wavelength Range	650-1650nm
Fiber Type	SM/MM
Insertion Loss	< 2dB
Optical Power Handling	23dBm
Insertion Loss Ripple	< +/-0.25dB ( Typical: +/-0.15dB)
Return Loss(SM)	> 40dB
Connector Type	FC/SC/ST/SMA/LC(PC and APC)
Pulling Strength	10N
Housing Materials	Stainless Steel
Package Style	Pigtails or receptacles
Vibration	MIL-STD-167-1A
Mechanical Shock	MIL-STD-810G
Protection	IP68

Remarks: Other specific requirements, please feel free to contact with us.

### Drawing:

2



Unit:mm

If you have specific customized requirement, please feel free to consult us so that our sales engineer could recommend the most suitable product to you for you reference.

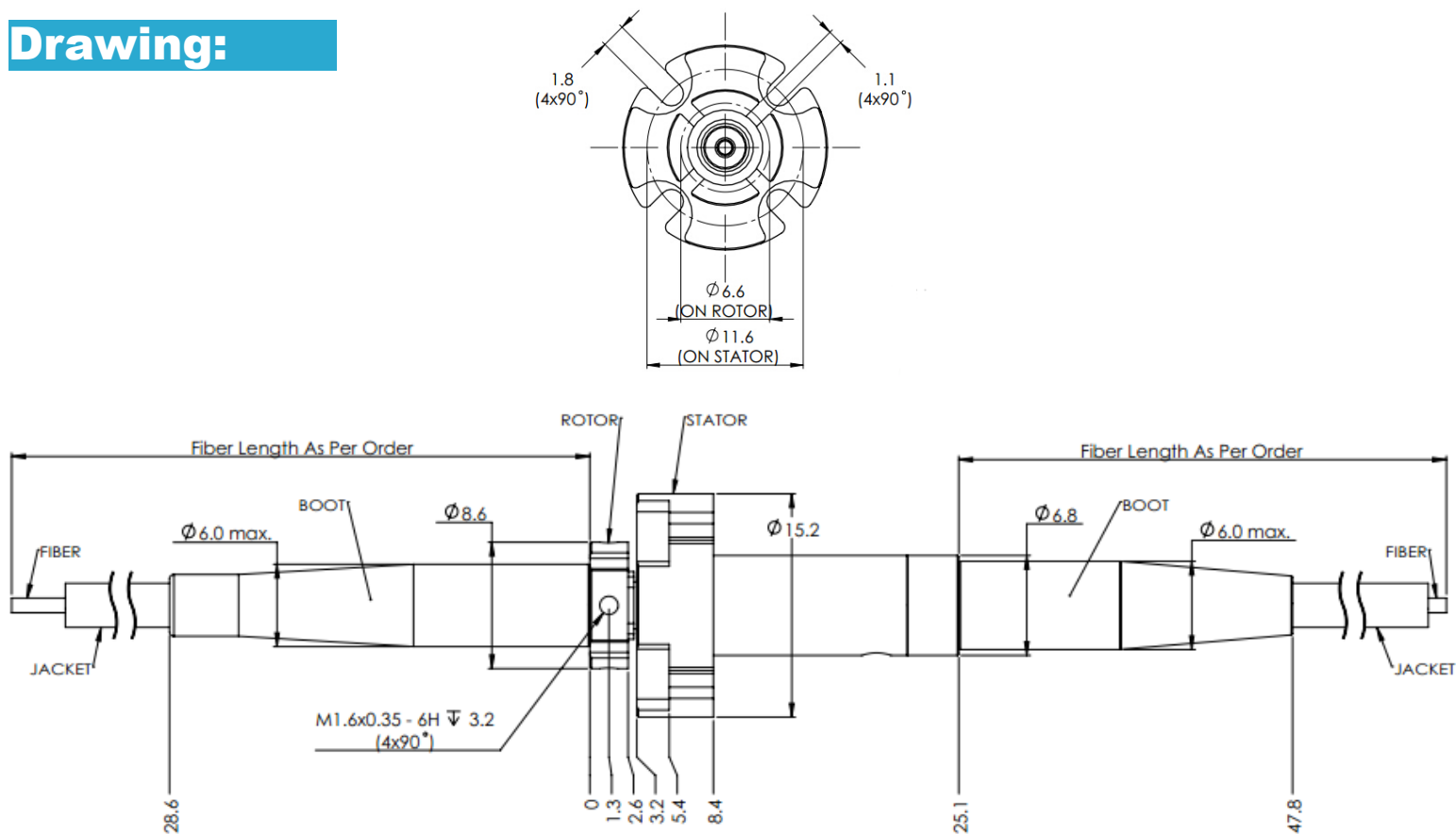
## Specification:

## FORJ-01A

Specification	Value
Channel	1
Operating Speed	0-2000rpm
Estimated Life Time	200-400 million rotations
Work Temperature	-40 C -+85 C
Stock Temperature	-50 C -+80 C
Wavelength Range	650-1650nm
Fiber Type	SM or MM,w/3mm jacket (Kevlar/PVC)
Insertion Loss	< 2dB (< 0.5dB)
Optical Power Handling	23dBm
Insertion Loss Ripple	< +/-0.25dB ( Typical: +/-0.15dB)
Return Loss(SM)	> 40dB
Connector Type	FC/SC/ST/SMA/LC(PC and APC)
Pulling Strength	10N
Housing Materials	Stainless Steel
Start Torque	< 0.01Nm
Package Style	Pigtails or receptacles
Vibration	MIL-STD-167-1A
Mechanical Shock	MIL-STD-810G
Protection	IP68
Remarks: Other specific requirements, please feel free to contact with us.	

## Drawing:

3



If you have specific customized requirement, please feel free to consult us so that our sales engineer could recommend the most suitable product to you for you reference.

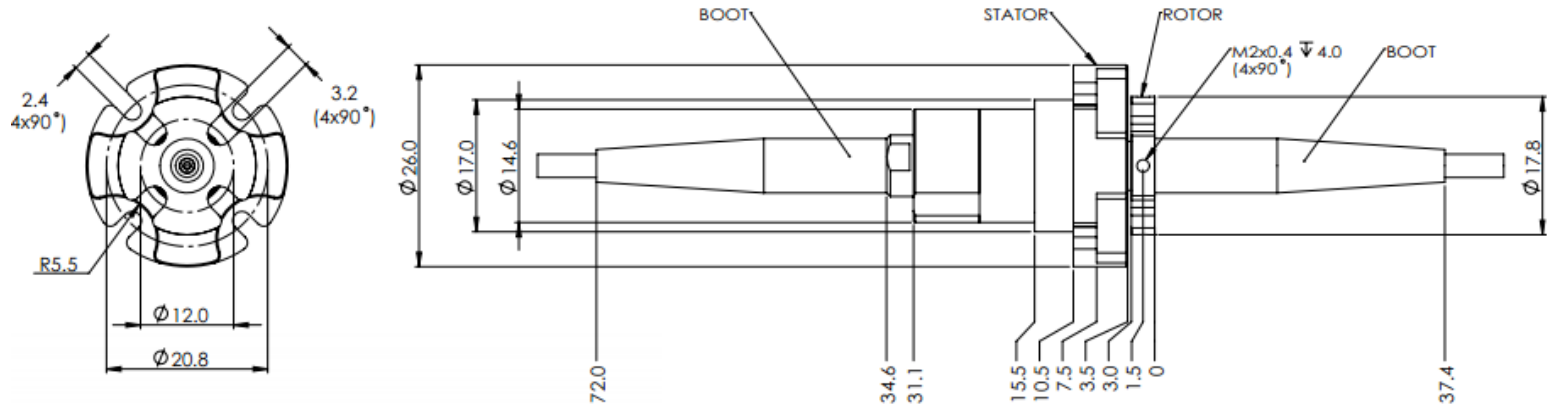
## FORJ-01B

### Specification:

Specification	Value
Channel	1
Operating Speed	0-2000rpm
Estimated Life Time	Around 500 million rotations
Work Temperature	-40 C -+85 C
Stock Temperature	-50 C -+80 C
Wavelength Range	650-1650nm
Fiber Type	SM/MM,3mm Kevlar/PVC or 2.9mm armor
Insertion Loss	< 2dB
Optical Power Handling	23dBm
Insertion Loss Ripple	< +/-0.25dB ( Typical: +/-0.15dB)
Return Loss(SM)	> 40dB
Connector Type	FC/SC/ST/SMA/LC(PC and APC)
Pulling Strength	10N
Housing Materials	Stainless Steel
Start Torque	< 0.1Nm
Package Style	Pigtails or receptacles
Vibration	MIL-STD-167-1A
Mechanical Shock	MIL-STD-810G
Protection	IP68
Remarks: Other specific requirements, please feel free to contact with us.	

### Drawing:

4



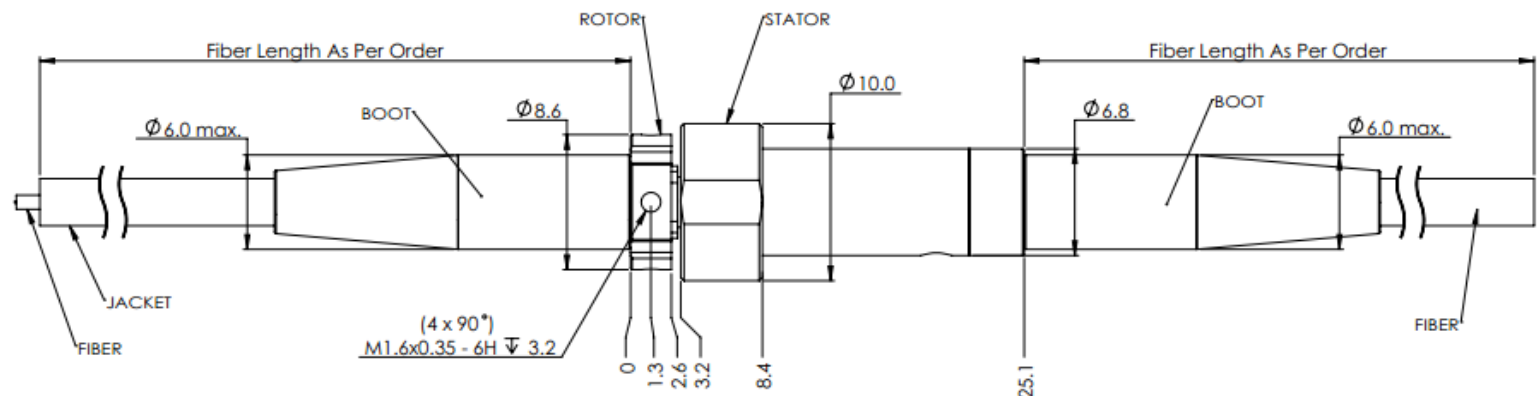
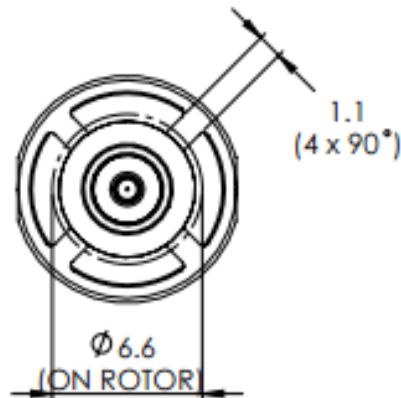
If you have specific customized requirement, please feel free to consult us so that our sales engineer could recommend the most suitable product to you for you reference.

## FORJ-01C

### Specification:

Specification	Value
Channel	1
Operating Speed	0-2000rpm
Estimated Life Time	200-400 million rotations
Work Temperature	-40 C -+85 C
Stock Temperature	-50 C -+80 C
Wavelength Range	650-1650nm
Fiber Type	SM or MM,w/3mm jacket (Kevlar/PVC)
Insertion Loss	< 2dB ( < 0.5dB)
Optical Power Handling	23dBm
Insertion Loss Ripple	< +/-0.25dB ( Typical: +/-0.15dB)
Return Loss(SM)	> 40dB
Connector Type	FC/SC/ST/SMA/LC(PC and APC)
Pulling Strength	10N
Housing Materials	Stainless Steel
Start Torque	< 0.01Nm
Package Style	Pigtails or receptacles
Vibration	MIL-STD-167-1A
Mechanical Shock	MIL-STD-810G
Protection	IP68
Remarks: Other specific requirements, please feel free to contact with us.	

### Drawing:



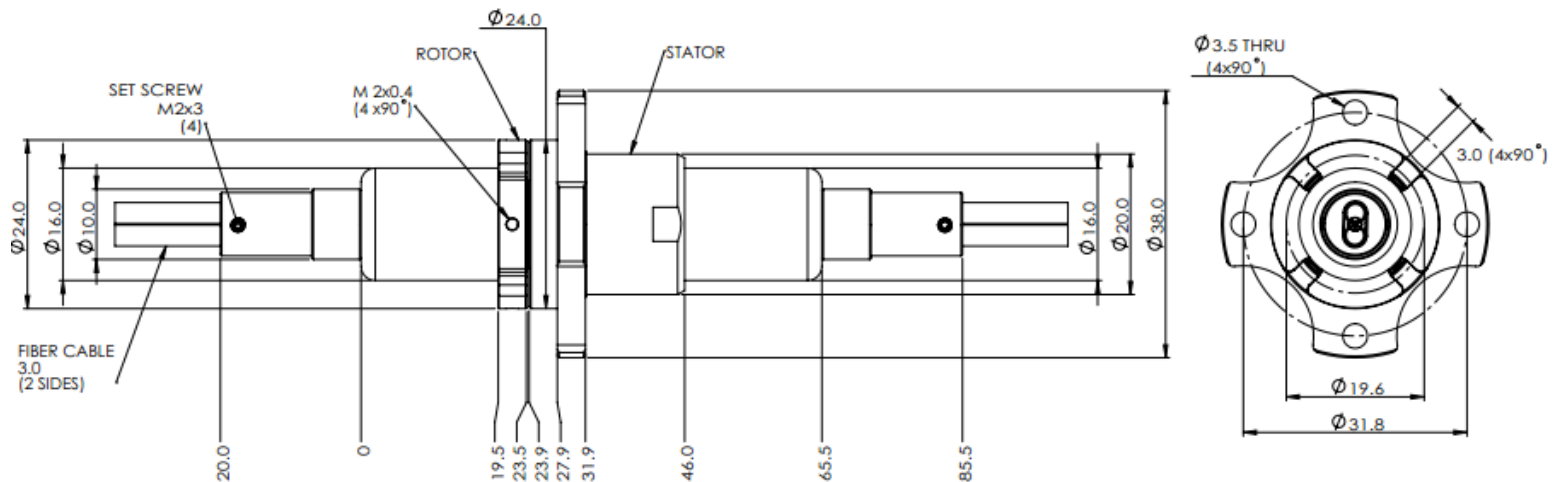
If you have specific customized requirement, please feel free to consult us so that our sales engineer could recommend the most suitable product to you for you reference.

## FORJ-02A

### Specification:

Specification	Value
Channel	2
Operating Speed	100rpm(max)
Estimated Life Time	100-200 million rotations
Work Temperature	-40 C -+72 C
Stock Temperature	-45 C -+75 C
Wavelength Range	1310/850nm or 1310/1550nm
Fiber Type	MM,w/3mm jacket (Kevlar lined) or armor
Insertion Loss	< 4dB/ channel1, < 6dB/channel2
Optical Power Handling	23dBm
Insertion Loss WOW	< +/-1dB
Return Loss	15dB
Connector Type	FC/SC/ST/SMA/LC
Pulling Strength	10N
Housing Materials	Stainless Steel
Start Torque	< 0.2Nm
Package Style	Pigtails or receptacles
Vibration	MIL-STD-167-1A
Mechanical Shock	MIL-STD-810G
Protection	IP60 (IP65 optional )
Remarks: Other specific requirements, please feel free to contact with us.	

### Drawing:



If you have specific customized requirement, please feel free to consult us so that our sales engineer could recommend the most suitable product to you for you reference.