

FORJ光纤旋转接头

Fiber Optic Rotary Joint

特点 Features

- 用于单模或多模系统的光电旋转连接
Optical and electrical rotary connection for single mode or multi mode systems
- 完全的双向旋转
Bidirectional
- 与现有的电气滑环设计相融合
Integrated FORJ with electrical slip ring
- 全封闭结构
Full closed structure
- 光传递信号，无泄密、无电磁干扰，可以远距离传输。
Light can transmit signal, no leakage, no electromagnetic interference, long-distance transmission.
- 体积小、密封性高，防护等级高。
Small size, good sealability, high degree of protection.
- 无接触、无摩擦、转速高、寿命长。
No contact, no friction, high speed, long life.
- 能为客户量身定制所需要的产品
Able to offer customized solutions

可选项 Options

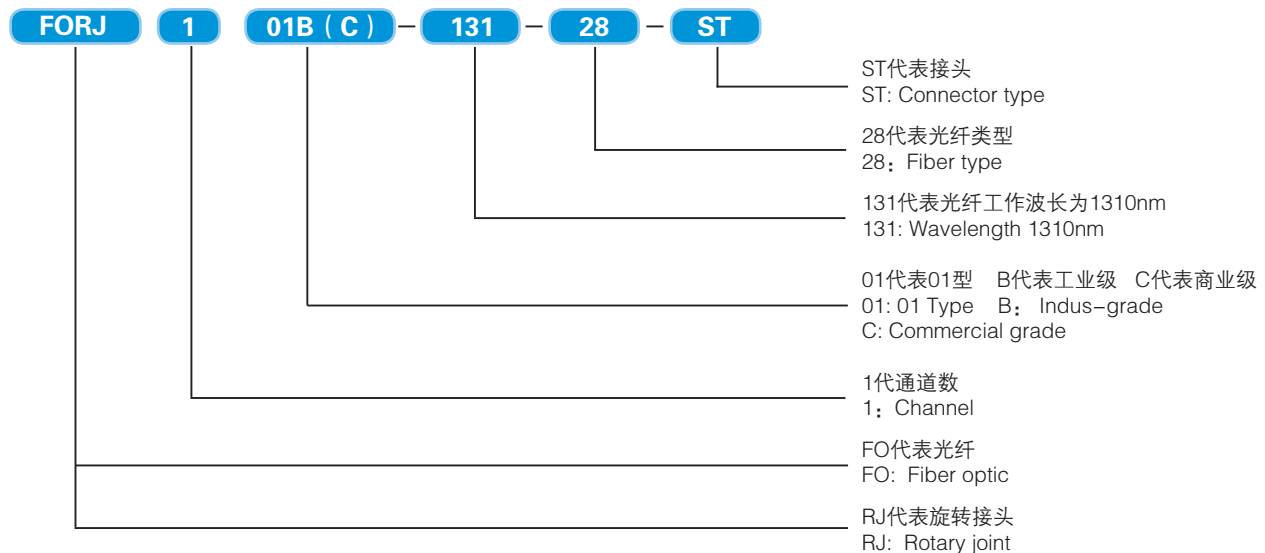
- 各种光纤尺寸和跳线长度
Various fiber types and pigtail lengths
- 光纤类型 Fiber type
- 光纤接头 Connector type
- 光纤长度 Fiber length
- 光通道数 Number of optical channels

典型应用 Typical Applications

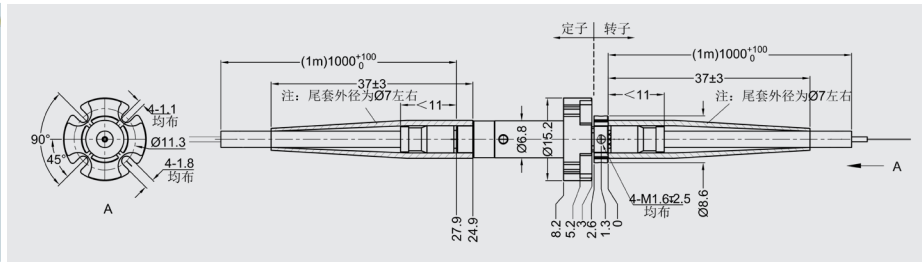
- 长距离(>10km)传输 Long distance data transmission
- 高速数据传输 High speed data transmission

型号选用说明

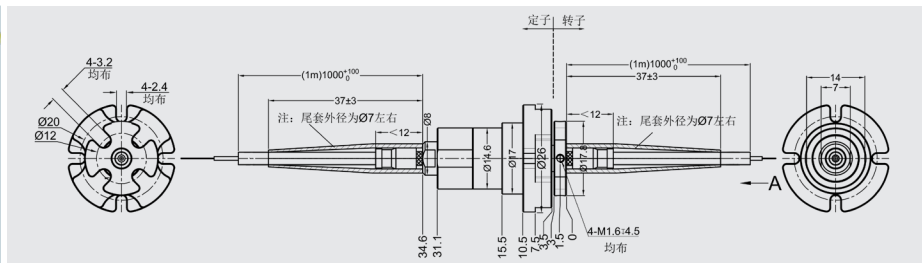
Model explanation



FORJ101微型单通道光纤旋转接头 FORJ101 MINIATURE SIZE



FORJ102微型单通光纤旋转接头 FORJ102 MINIATURE SIZE

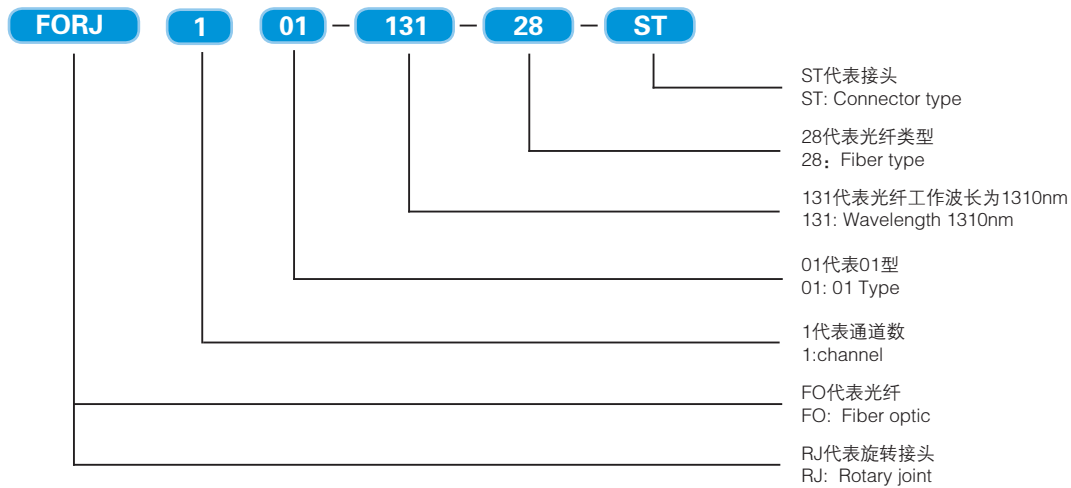


机械技术指标 Mechanical data

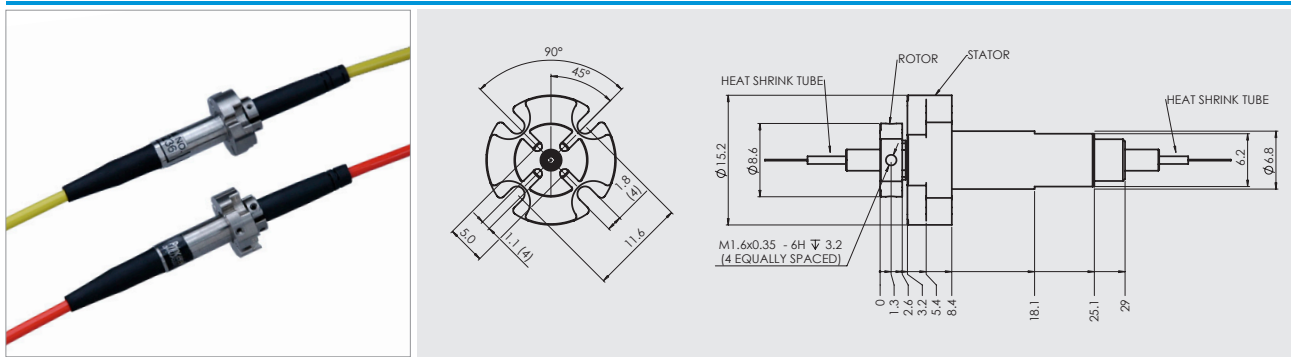
参数 Specification	数值 Values			
型号 Type	FORJ101B	FORJ102B	FORJ101C	FORJ102C
级别Level	工业级Indus-grade		商业级Commercial grade	
通道数 No. of Channel	单通道 Single Channel			
波长范围Wavelength range	1310/1550nm			
插损 Insertion loss	<2 dB (典型值typica: <0.5 dB)		<3dB	
插损偏差 Insertion loss ripple	< ± 0.5 dB (典型值typica: ± 0.25 dB)			
回损Return loss	>40 dB (典型值typica: 45 dB, 23 C)		>30 dB	
最大转速Maximum speed	< 2000rpm		< 500rpm	
扭矩 Torque	<0.1 Nm			
工作温度Working temperature	-40 ~ 80°C			
壳体材料Housing material	不锈钢Stainless Steel			
光纤类型 Fiber types	单模光纤 SM (φ 3护套; 非标可选 φ 2护套, 还可选铠甲光纤护套)			
连接器类型Connector types	FC; LC;SC;ST; SMA (PC and APC)			
振动Vibration	MIL-STD-167-1A			
机械冲击Mechanical shock	MIL-STD-810G			
旋转寿命 Estimated life cycle	> 2亿转			
承受功率Optical power handling	23 dBm			
防护等级IP rating	IP 67			
光纤弯曲半径 Optical fiber bending radius	> 30mm			
重量Weight	10g	50g	10g	50g

型号选用说明

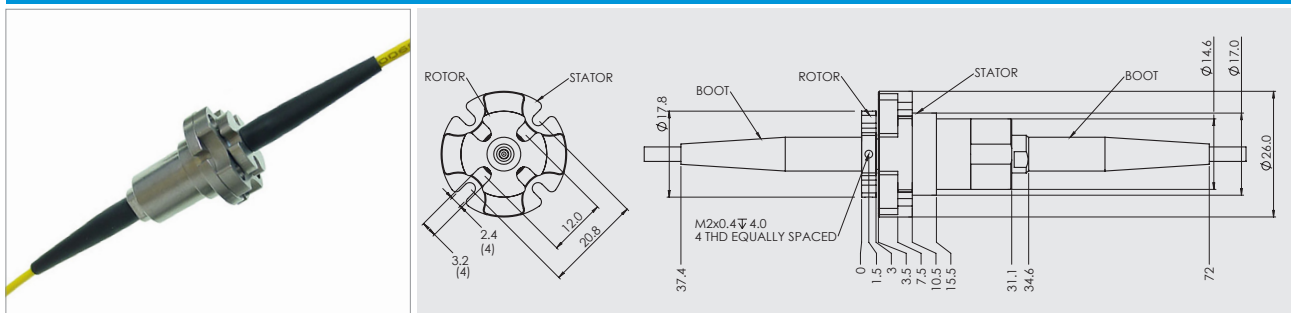
Model explanation



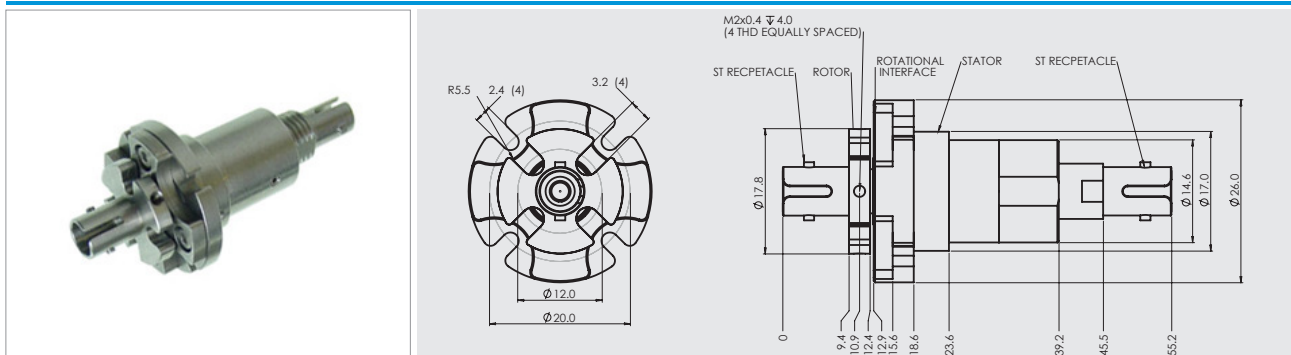
FORJ101微型光纤旋转接头 FORJ101 miniature size



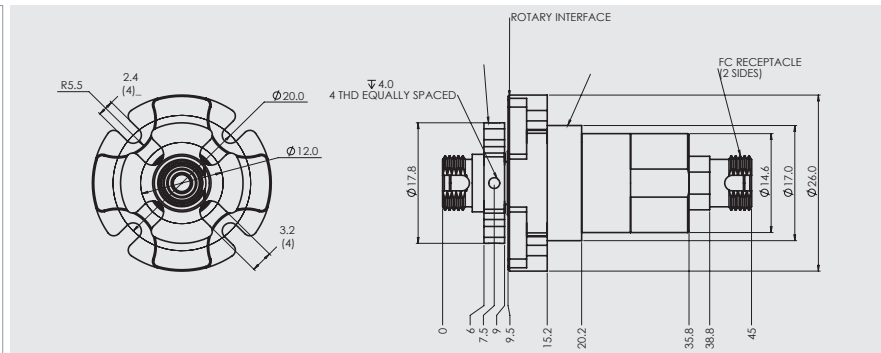
FORJ102单通道光纤旋转接头 FORJ102 Single Channel



FORJ103单通道光纤旋转接头 FORJ103 Single Channel



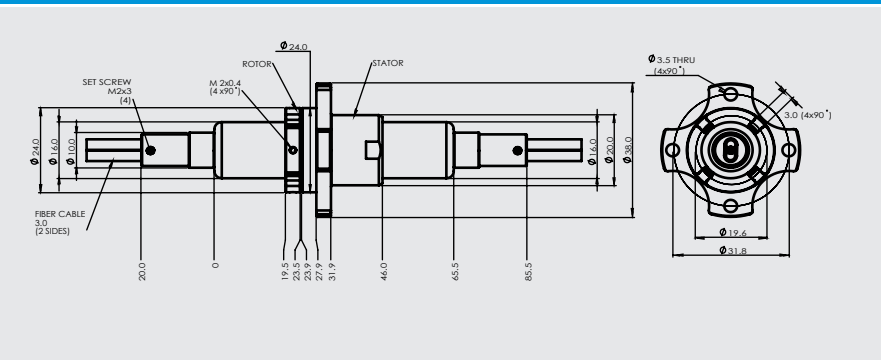
FORJ104单通道光纤旋转接头 FORJ104 Single Channel



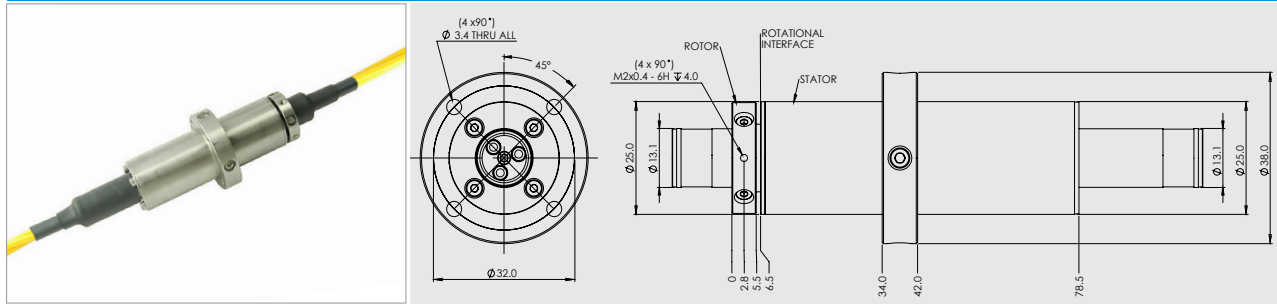
机械技术指标 Mechanical data

参数 Specification	数值 Values			
型号 Type	FORJ101	FORJ102	FORJ103	FORJ104
波长范围 Wavelength range	1310 ~ 1550nm		850 ~ 1650 nm	
插损 Insertion loss	<2 dB (典型值typical : <0.5 dB)		<3dB	
插损偏差 Insertion loss ripple	< ± 0.5 dB (典型值typical: ± 0.25 dB)			
回损 Return loss	>40 dB (典型值typical: 45 dB, 23 C)		>30 dB	
最大转速 Maximum speed	2,000 rpm			
牵引力 Pulling strength	10 N (900 um 外护套buffer)			
启动扭矩 Start up torque	<0.01 Nm			
使用寿命 Estimated life cycle	200-400 million revolutions			
允许最大光功率 Optical power handling	23 dBm			
工作温度 Working temperature	-40 ~ 80°C			
封装型式 Package style	两端尾纤 Pigtailed on both ends			
壳体材料 Housing material	不锈钢 Stainless Steel			
光纤类型 Fiber types	单模光纤 SM (ϕ 3护套; 非标可选 ϕ 2护套, 还可选铠甲光纤护套)		单模光纤或多模光纤 3mm外护套 Single or multimode w/3 mm jacket (Kevlar/PVC)	
连接器类型 Connector types	FC; LC; SC; ST; SMA (PC and APC)		ST座	FC座
重量 Weight	10 g	≈ 50 g	≈ 50 g	≈ 50 g
振动 Vibration	MIL-STD-167-1A			
机械冲击 Mechanical shock	MIL-STD-810G			
防护等级 IP rating	IP67		IP68	

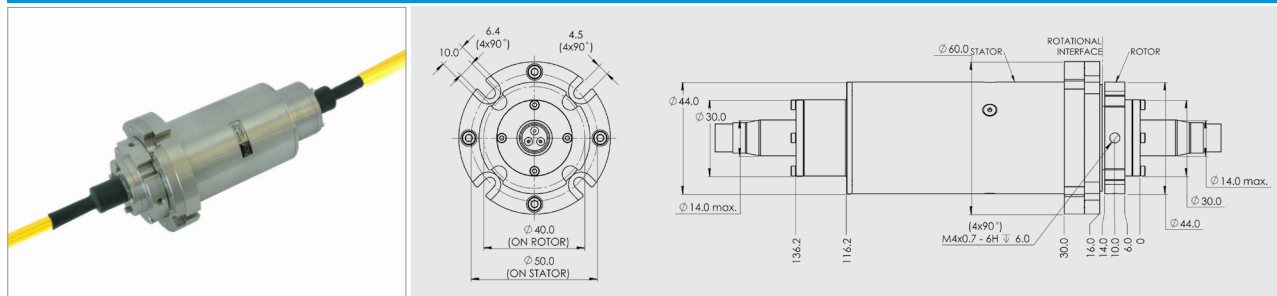
FORJ201微型光纤旋转接头 FORJ201 miniature size



FORJ302微型光纤旋转接头 FORJ302 miniature size



FORJ303微型光纤旋转接头 FORJ303 miniature size



机械技术指标 Mechanical data

参数 Specification	数值 Values		
型号 Type	FORJ201	FORJ302	FORJ303
波长范围 Wavelength range	850 ~ 1310 nm	850 ~ 1610nm	850 ~ 1550 nm
插损 Insertion loss	<4/6 dB(ch1/2)	<5dB	<5dB
插损偏差 Insertion loss ripple		< ± 1 dB	
回损 Return loss	>15 dB	>50dB	>45dB
最大转速 Maximum speed	100 rpm	400 rpm	300 rpm
牵引力 Pulling strength	10 N (900 um 外护套buffer)		
启动扭矩 Start up torque	<0.01 Nm		
使用寿命 Estimated life cycle	100 ~ 200 million revolutions		
允许最大光功率 Optical power handling	23 dBm		
工作温度 Working temperature	-42 ~ 72°C	-20 ~ 65°C	-20 ~ 65°C
存储温度 Storage temperature	-45 ~ 75°C	-25 ~ 75°C	-20 ~ 75°C
封装型式 Package style	两端尾纤 Pigtailed on both ends		
壳体材料 Housing material	不锈钢 Stainless Steel		
光纤类型 Fiber types	单模光纤或多模光纤 3mm外护套 Single or multimode w/3 mm jacket (Kevlar/PVC)		
连接器类型 Connector types	FC, SC, ST, SMA, or LC (and APC finishes)		
重量 Weight	≈ 100 g	≈ 500 g	≈ 1500 g
振动 Vibration	MIL-STD-167-1		
机械冲击 Mechanical shock	MIL-STD-810F		
防护等级 IP rating	IP 60	IP60、IP65 (长款)	IP60、IP65 (长款)