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

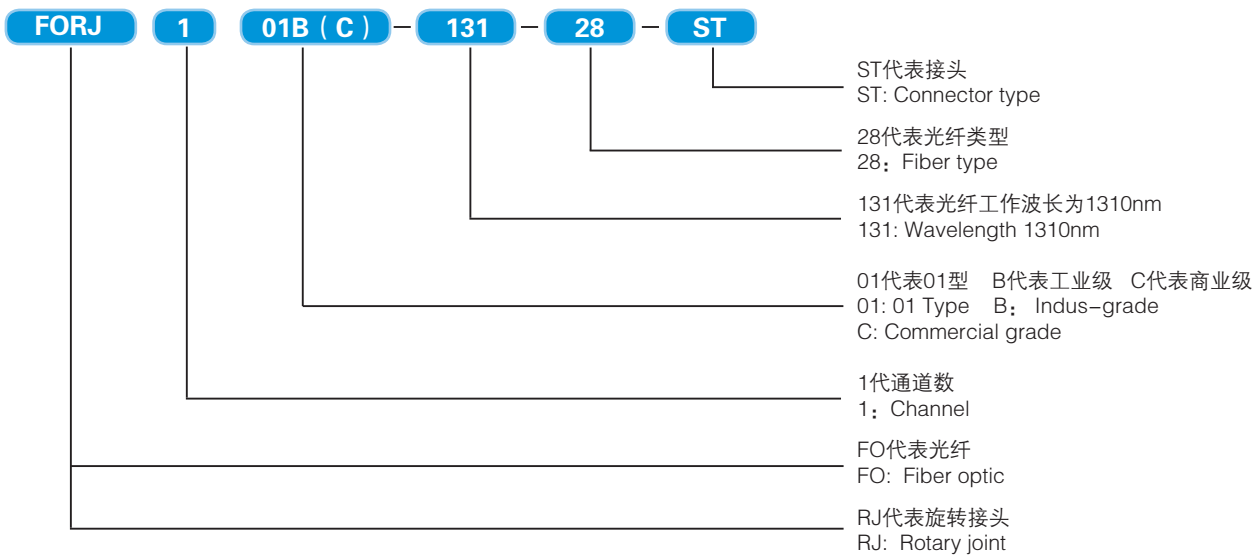
可选项 Options

- 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

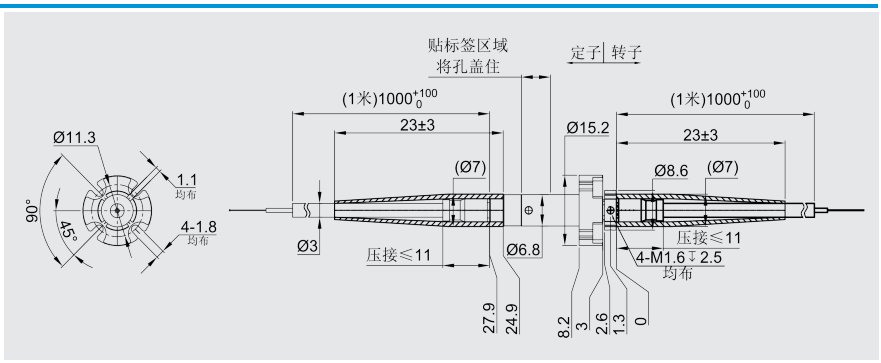
- 长距离(>10km)传输 Long distance data transmission
- 高速数据传输 High speed data transmission

型号选用说明
Model explanation



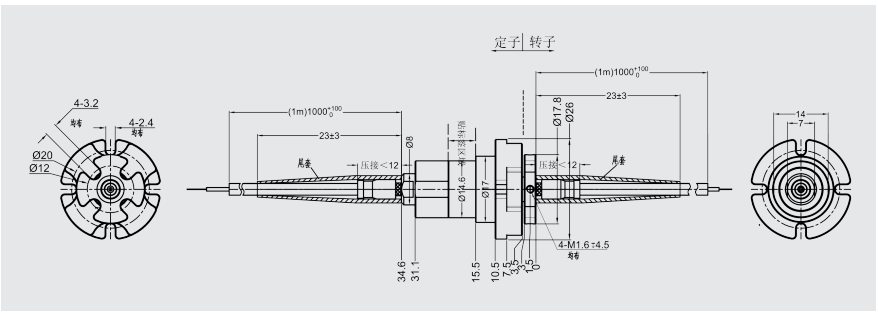
FORJ101微型光纤旋转接头 FORJ101 miniature size





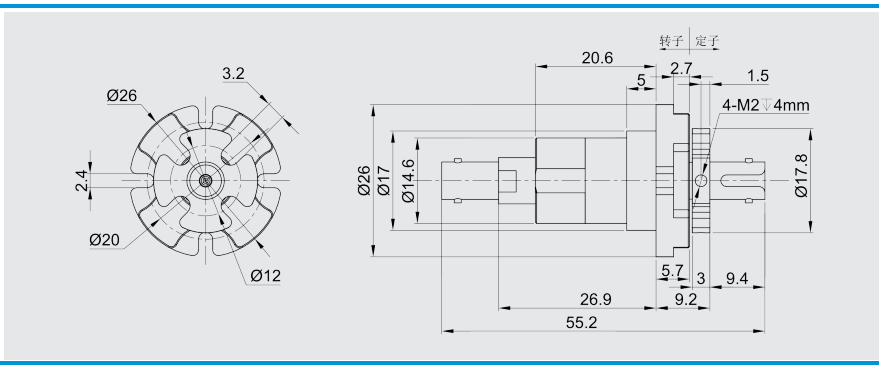
FORJ102单通道光纤旋转接头 FORJ102 Single Channel





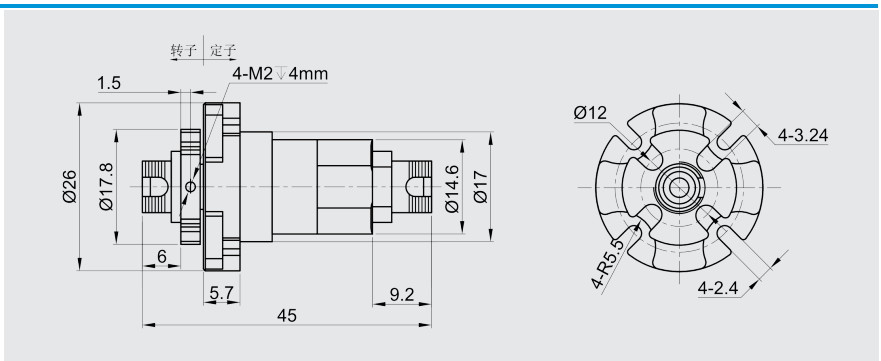
FORJ103单通道光纤旋转接头 FORJ103 Single Channel





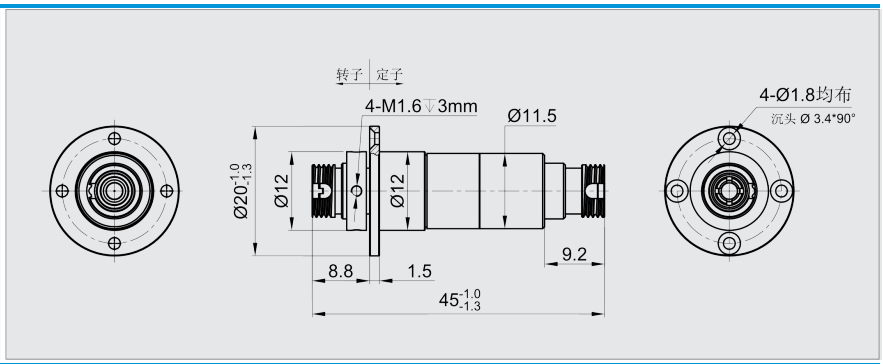
FORJ104单通道光纤旋转接头 FORJ104 Single Channel





FORJ105单通道光纤旋转接头 FORJ105 Single Channel



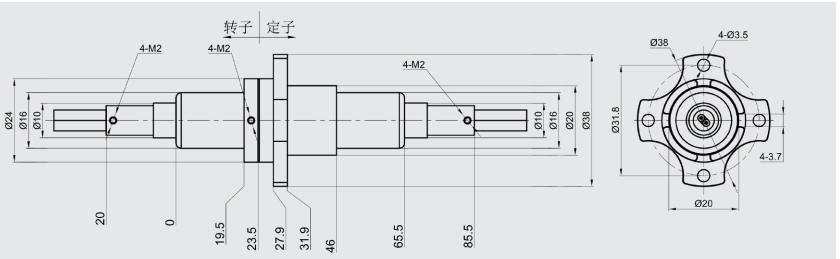


机械技术指标 Mechanical data

参数 Specification	数值 Values				
型号 Type	FORJ101	FORJ102	FORJ103	FORJ104	FORJ105
波长范围Wavelength range	1310 ~ 1550nm		850 ~ 1650 nm		
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	2,000 rpm				
启动扭矩Start up torque	<0.01 Nm				
使用寿命Estimated life cycle	>2亿转				
允许最大光功率Optical power handling	23 dBm				
工作温度Working temperature	−40 ~ 80℃				
壳体材料Housing material	不锈钢Stainless Steel				
光纤类型 Fiber types	单模光纤 SM（ ∮3护套；非标可选 ∮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	FC座
重量Weight	10 g	≈50 g	≈50 g		26g
振动Vibration	MIL−STD−167−1A				
机械冲击Mechanical shock	MIL−STD−810G				
防护等级IP rating	IP67				

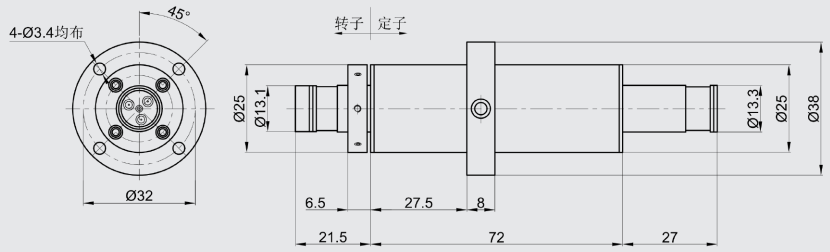
FORJ201微型光纤旋转接头 FORJ201 miniature size





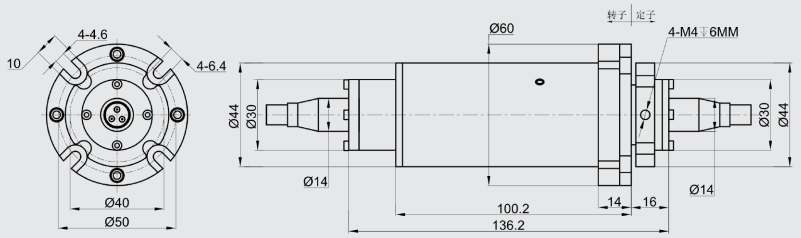
FORJ302微型光纤旋转接头 FORJ302 miniature size





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) ± 1 dB	<5dB ± 1 dB	<5dB ± 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℃	–20 ~ 65℃	–20 ~ 65℃
存贮温度 Storage temperature	–45 ~ 75℃	–25 ~75℃	–20 ~ 75℃
封装型式Package style	两端尾纤Pigtails 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）