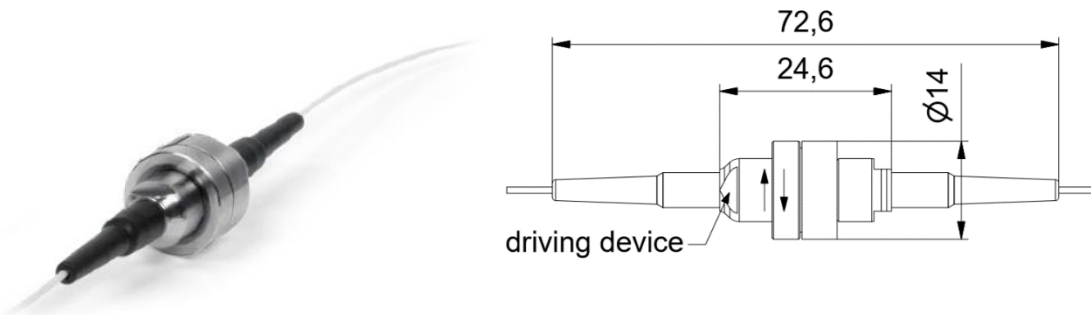


Single-Channel Fiber Optic Rotary Joints 1.14 (FORJ)

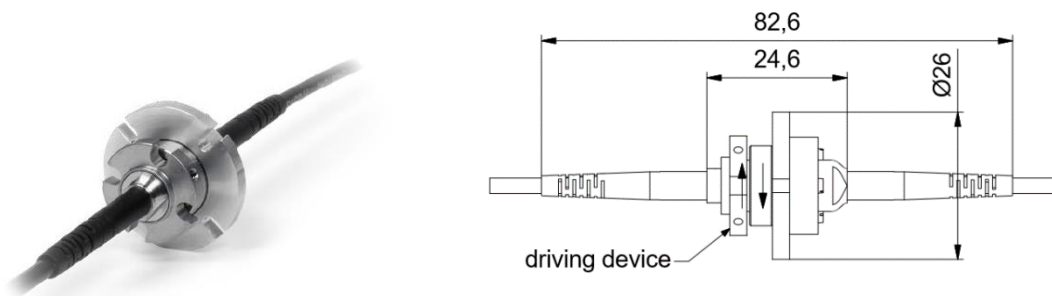
The FORJ 1.14 of SPINNER's single-channel family features top performance and extremely compact dimensions. Due to its superior design the typical insertion loss is less than 1.0 dB combined with a high return loss for laser and VCSEL applications.

Its small dimensions and low weight of only 18 g permit rotational speeds of 20,000 rpm and more. The 1.14 FORJ type is typically used in industrial and medical applications and is perfectly suited for digital and analogue signal transmission.

SPINNER FORJ 1.14



SPINNER FORJ 1.14 with SPINNER FLEXIFLANGE and 3mm cable



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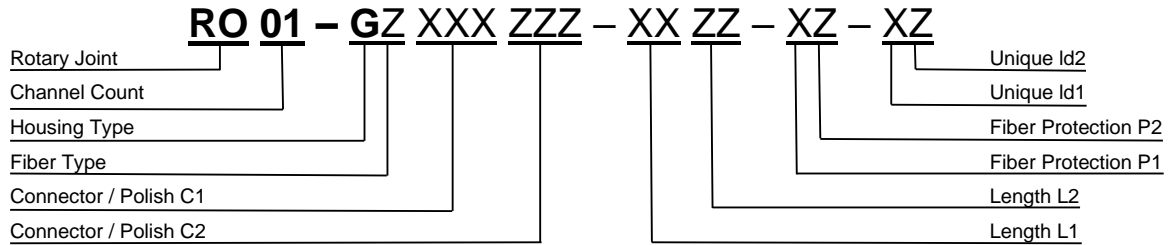
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Template TD-00015N



Single-Channel Fiber Optic Rotary Joints 1.14 (FORJ)

Standard series part number explanation



Rotary Joint	Fiber Optic	Channel Count	Housing Type	Fiber Type	Connector Polish C1	Connector Polish C2	Length L1	Length L2	Fiber Protection P1 / P2	Unique ID1	Unique ID2					
R	O	01	-	G	Z	-	XXX	ZZZ	-	XX	ZZ	-	XZ	-	X	Z
Ø 14 mm (1.14) IP54 (standard)			G													
Single-mode E9 / 125 (standard OS1)				S												
Single-mode SMF28 Ultra				U												
Multi-mode G50 / 125 (standard OM2)				M												
Multi-mode G62.5 / 125				N												
Special fiber (e.g. G657, HI1060, etc.)				X												
Connector Type C1 & C2																
Single Mode Connector / Polish				Multi Mode Connector / Polish												
LC / APC (Standard)								LCA	LCA							
LC / UPC								LCU	LCU							
				LC / PC				LCP	LCP							
FC / APC								FCA	FCA							
FC / UPC								FCU	FCU							
FC / PC				FC / PC (Standard)				FCP	FCP							
SC / APC								SCA	SCA							
SC / UPC								SCU	SCU							
SC / PC				SC / PC				SCP	SCP							
ST / UPC								STU	STU							
ST / PC				ST / PC				STP	STP							
Other connectors: LSA, LuxCis, Molex, special, expanded beam etc. unique ID								OTH	OTH							
Length L1 in m [0.2 ... 4.5] (standard 4.5 m for 900µm, 1.5 m for 3 mm and 2 mm)																
Length L2 in m [0.2 ... 4.5] (standard 4.5 m for 900µm, 1.5 m for 3 mm and 2 mm)																
Bare fiber only				5 mm bending radius								0				
Fiber protective tube 900µm buffer				30 mm bending radius (Standard)								1				
Fiber protective tube Kevlar / aramid armor				20 mm bending radius								2				
Metallic protective tube				30 mm bending radius								M				
Special protection (e.g. military grade)												X				
FLEXIFLANGE						Unique identifier										

Example: FORJ 1.14 type with SMF28 Ultra, FC/APC and SC/UPC, 1 m length each side with Kevlar protection
RO01-GU-FCASCU-1010-22-**

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Single-Channel Fiber Optic Rotary Joints 1.14 (FORJ)

Fiber optic channel characteristics

Channels	1 CH	
Fiber type	Singlemode	Multimode
Fiber model	See fiber list	See fiber list
Wavelength (dependent on fiber model)	450 nm – 1650 nm	450 nm – 1650 nm
Average power capability, max.	500 mW	500 mW
Return Loss, min. / premium	45 - 55 dB	35 - 45 dB
Insertion loss, max. / premium	1.5 – 0.5 dB	1.5 – 0.5 dB
Insertion loss variation over rotation, max. / premium	1.0 - 0.2 dB	1.0 - 0.1 dB

Mechanical characteristics

Rotation speed, max.	Up to 20000 rpm
Life, min.	600 x 10 ⁶ revolutions
Torque (room temperature), max.	0.01 Nm
Interface loads, max.	No loads allowed
Case material	Copper alloy, corrosion resistant
IP protection level	IP54 per EN 60529 (all interfaces connected with appropriate gaskets)
Weight, approx. (FORJ only, without flexi flanges)	0.02 kg

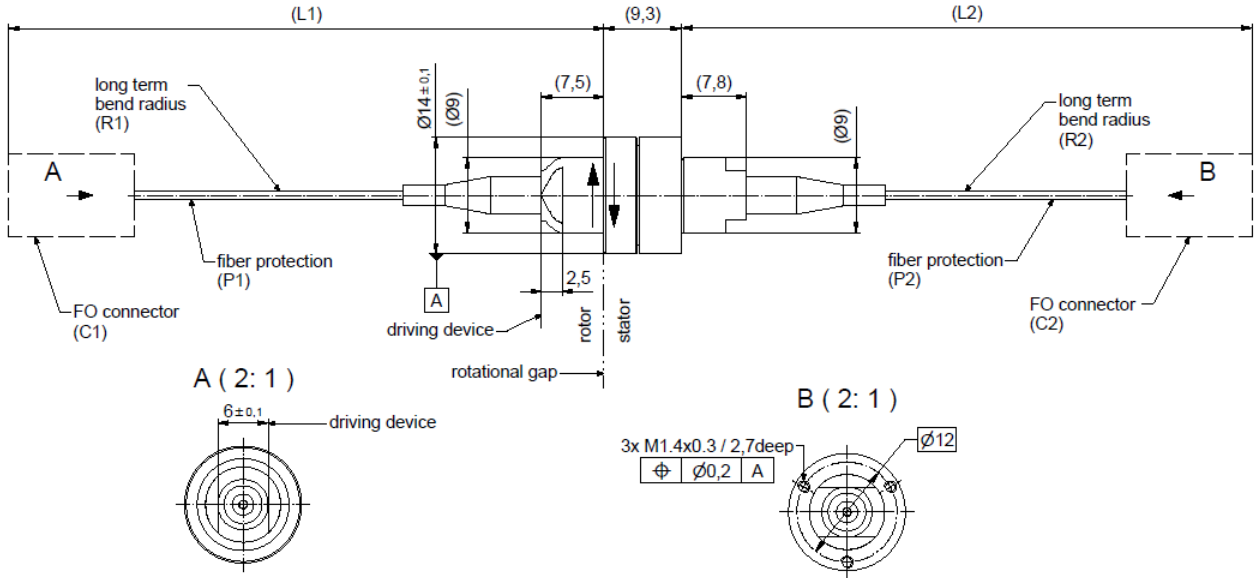
Environmental conditions

Operation	
Ambient temperature range	-40 °C to +85 °C
Relative humidity, max.	95% (non-condensing)
Storage	
Ambient temperature range	-40 °C to +85 °C
Relative humidity, max.	95% (non-condensing)

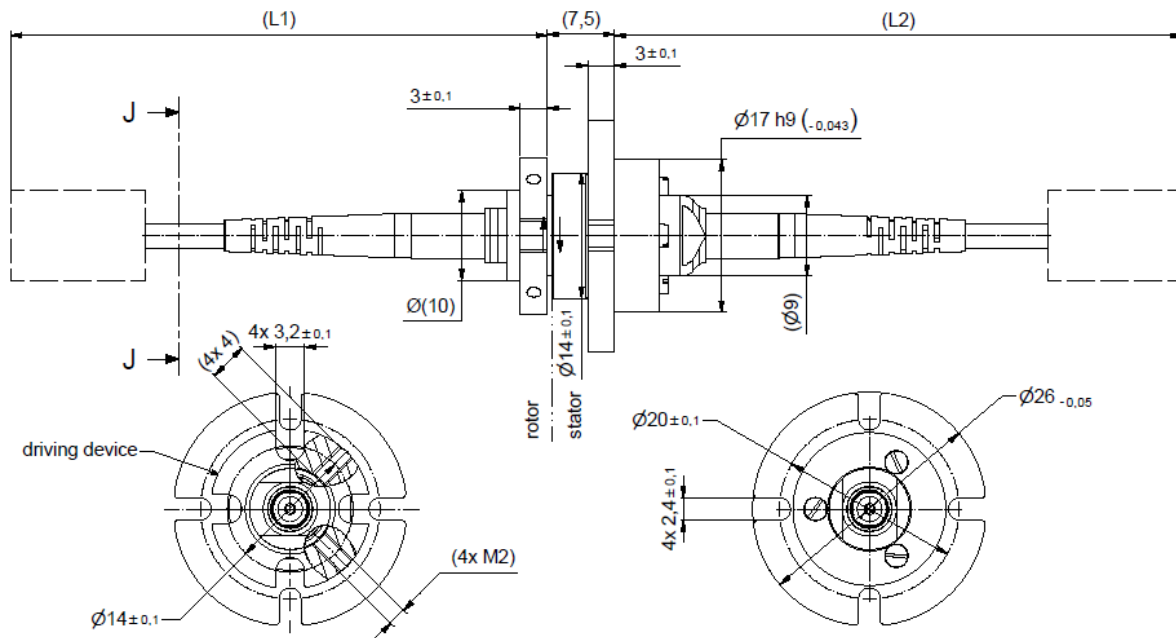
Single-Channel Fiber Optic Rotary Joints 1.14 (FORJ)

Outline (all dimensions in millimeter)

Drawing Housing Type: 1.14



Drawing Housing Type: 1.14 FLEXIFLANGE and 3mm cable



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