

BFORJ109 SERIES

1 Channel Fiber Optic + electric Slip Rings

BFORJ109 can combine panel optic fiber and electric (1-96 wires). It adopts complete aluminum alloy, can support signal (5A). Rotary joint of FORJ + Electric is also called photoelectrical slip ring, photoelectricity collector ring, which adopts fiber optic as data transmission to solve data transmission between stationary and rotating parts on 360° rotation. It is also especially suitable for occasions where it needs to transmit large volume data / signal from permanent position to rotation position on unlimited, continuous or discontinuous. It has good mechanical property, simplifies system operation and avoids the rattling of turning joints. It destroys fiber optics. Fiber optic rotary joint can be combined with traditional electric slip rings to transmit power and high-speed data.

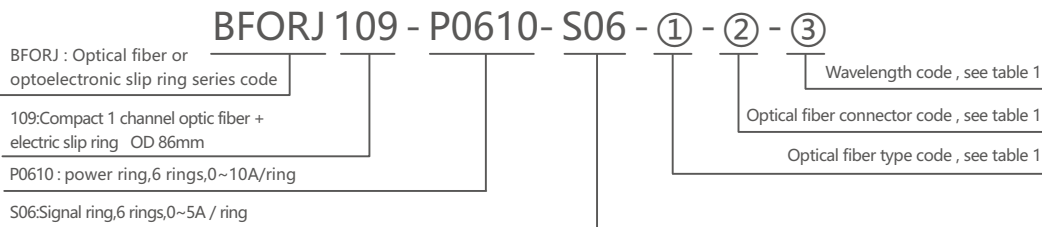
Product images



The pictures are for reference only

As the signal pathway increases or the combination of light and electricity results in changes in the appearance and size of the product, the actual product shall prevail.

Part# Explanation



Dimensions

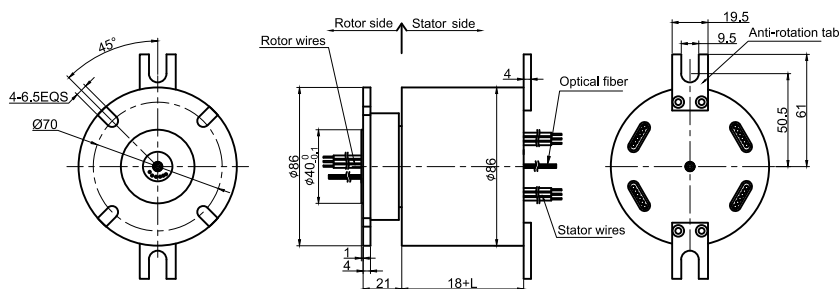


Table 1

Fiber Type Code	Fiber Connector Code	Wavelength Code
01 : 9/125um , Single-mode 02 : 50/125um , Multiple-mode 03 : 62.5/125um , Multiple-mode	FC : FC Connector ST : ST Connector SC : SC Connector LC : LC Connector The connector face is PC by default if APC is needed . APC should be added behind APC , such as FC / APC	01: 1310/1550 (single-mode) 02: 850/1310 (multiple-mode)

BFORJ107 Series Part#List

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ109-S02	1	0	2	31.6
BFORJ109-P0210	1	2	0	31.6
BFORJ109-S03	1	0	3	35
BFORJ109-P0310	1	3	0	35
BFORJ109-S06	1	0	6	45.2
BFORJ109-P0210-S04	1	2	4	45.2
BFORJ109-P0410-S02	1	4	2	45.2
BFORJ109-P0610	1	6	0	45.2
BFORJ109-S12	1	0	12	65.6
BFORJ109-P0210-S10	1	2	10	65.6
BFORJ109-P0310-S09	1	3	9	65.6
BFORJ109-P0610-S06	1	6	6	65.6
BFORJ109-P0180-S04	1	8	4	65.6
BFORJ109-P1010-S02	1	10	2	65.6
BFORJ109-P1210	1	12	0	65.6

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ109-P1810-S06	1	18	6	106.4
BFORJ109-P2410	1	24	0	106.4
BFORJ109-S30	1	0	30	126.8
BFORJ109-P0610-S24	1	6	24	126.8
BFORJ109-P1210-S18	1	12	18	126.8
BFORJ109-P1810-S12	1	18	12	126.8
BFORJ109-P2410-S06	1	24	6	126.8
BFORJ109-P3010	1	30	0	126.8
BFORJ109-S36	1	0	36	150.2
BFORJ109-P0610-S30	1	3	30	150.2
BFORJ109-P1210-S24	1	12	24	150.2
BFORJ109-P3610	1	39	0	150.2
BFORJ109-S42	1	0	42	170.6
BFORJ109-P0610-S36	1	6	36	170.6
BFORJ109-P1210-S30	1	12	30	170.6
BFORJ109-S48	1	0	48	193.2
BFORJ109-P0610-S42	1	6	42	193.2
BFORJ109-P0910-S39	1	9	39	193.2
BFORJ109-P1210-S36	1	12	36	193.2
BFORJ109-P1810-S30	1	18	30	193.2
BFORJ109-P2410-S24	1	24	24	193.2
BFORJ109-S60	1	0	60	234
BFORJ109-P0610-S54	1	6	54	234
BFORJ109-P0910-S51	1	9	51	234
BFORJ109-P1210-S48	1	12	48	234
BFORJ109-S72	1	0	72	277.8

you have any special requirements , please contact customer service for specific model and customization

fiber parameters

Project	Single-mode	Multiple-mode
Wavelength (nm)	±50	
Max Insert Loss , 23°C (dB)	≤1.5dB	≤1.5dB
Insert Loss Ripple (dB)	≤0.7dB	0.7dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	25g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	1000	
Working Life	>100 million rpm	
Working Temperature (°C)	-20~60°C (-40~85°C Optional)	
Storage Temperature (°C)	-45~85°C	

Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	240VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead wires	AWG16#Teflon	AWG22#Teflon
Lead Length	Standard 300mm (can be extend)	
Fiber Length	1m	
Dielectric Strength	500VAC@50Hz, 60s	

Electrical noise <0.01Ω

Mechanical Data

Project	Value
Rated Voltage	20 million turn
Insulation Resistance	250 RPM
Lead wires	-30°C~ 80°C
Lead Length	0~85% RH
Dielectric Strength	gold-gold
Electrical noise	aluminium alloy
Torque	0.1N.m; + 0.03N.m/6 ring
Protection Grade	IP51

Options for custom slip ring

Note: Below special demands can be customized According , the delivery date will be extended 3 to15 days; also the cost will be increased 30%to 50% . Most of our basic parts are standard and modular which can save the cost and lead time.

- 1, Cable exit way and cable length can be customized for both rotor and stator.
- 2, Because of the structure limitation , length / height / OD can be customized on your request.
- 3, Support current or signal up to 200 ring.
- 4, Aviation plug , terminal and heat-shrink tube are optional.
- 5, Hybeid Sslip ring for Yaskawa / Panasonic / Siemens servo control signal , power line and encoder line.
- 6, Support mixed high speed data transmission (including Ethernet USB , RS232 , RS485 , Profibus , Canbus , CANOPEN , Devicenet , CC-LINProfinet Ethercat . et)
- 7, Can combine temperature control signal with thermocouple signal.
- 9, Special environment can be customized , such as quakeproof , high temperature , etc.
- 9, Hybrid Pneumatic / hydraulic and electric slip ring can be mixed.
- 10, Optical fiber connector , optical fiber type and fiber pigtail length can be customized.
- 11, Optic fiber channels can be customized.
- 12, Optic fiber wavelength can be customized.
- 13, Maximum current can up to 5000 amperes.
- 14, Military grade.
- 15, Optional for underwater IP65 , Ip68.
- 16, Optional for stainless steel housing.

Technical support : Info@orbinexus.com