BFORJ SERIES
Fiber Optic Slip Ring

BFORJ series fiber optic slip ring is an optic + electromechanical device that allows the transmission of power and fibeoptic signals from a stationary to a rotating structure . It can perfectly transmit data on 360 rotating . It is also especialuitable for occasion where it needs to transmit large volume data / signal from permanent position to rotation positionder uted . continuous or discous rotating , which caove mechanical property , simplify systemoperation and avoid destroying fiber optics . also can be combined with electric slip ring to transmit power and higspeed data too

Features

- Options for single mode multiple mode
- FC , SC , ST , SMA , or LC (PC and APC) on your request
- Large amounts of data transmittings
- Anti-electromagnetic interference
- Could support 1 , 2 , 4,6,8 channel fiber optic on 360rotating
- Combine with 1-96circuits power / signal
- Much higher rotating speed

Web: www.orbinexus.com Email: Info@orbinexus.com

BFORJ Series Models

Model#	Optic Fiber Channel	Circuits Num	OD (mm)
BFORJ100	1	0	10.1
BFORJ100C	1	0	6.8
BFORJ100D	1	0	6.8
BFORJ102	1	1~18	24.8
BFORJ107	1	1~24	33
BFORJ108	1	1~48	56
BFORJ109	1	1~72	86
BFORJ200	2	0	67
BFORJ200C	2	0	26
BFORJ208	2	1~96	99
BFORJ400	4	0	67
BFORJ408	4	1~96	99
BFORJ600	6	0	67
BFORJ608	8	1~96	99
BFORJ800	8	0	67
BFORJ808	8	1~96	119
BFORJ1000C	10	0	38
BFORJ1200C	12	0	38
BFORJ1600C	16	0	38
BFORJ2000C	20	0	38
BFORJ2400C	24	0	38
BFORJ2600C	26	0	67

BFORJ100 SERIES

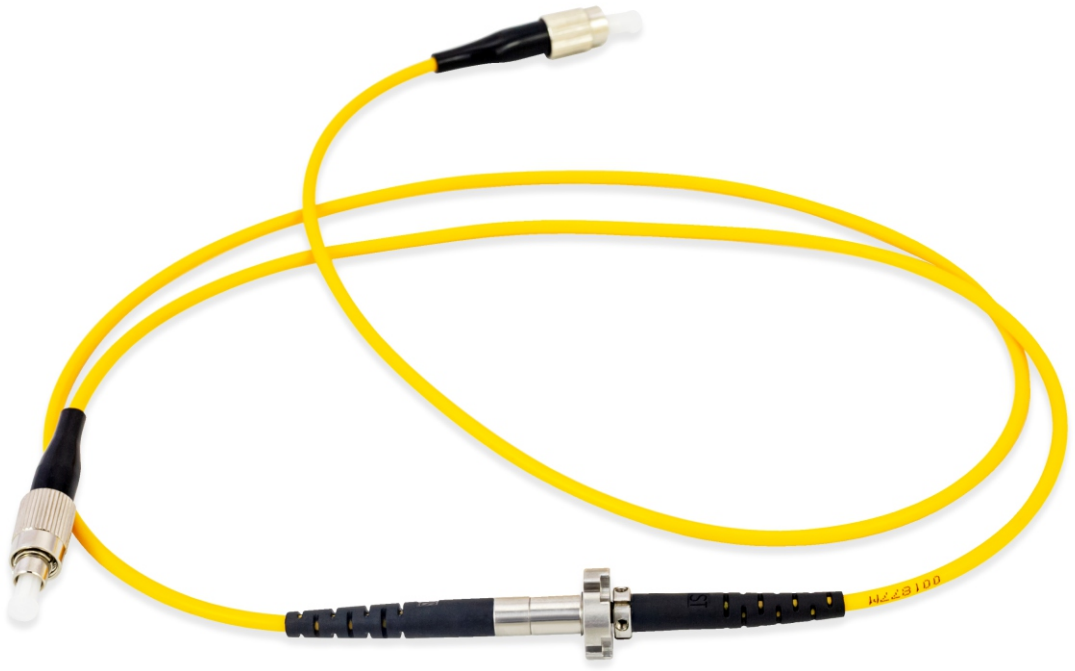
1 Channel (FORJ) Fiber Optic Slip Rings

BFORJ100 fiber optic slip ring support 1 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio

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

BFORJ 100 - ① - ② - ③

- BFORJ : Optical fiber or Optical fiber + Electric slip ring
- 100 : 1 channel optical fiber
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

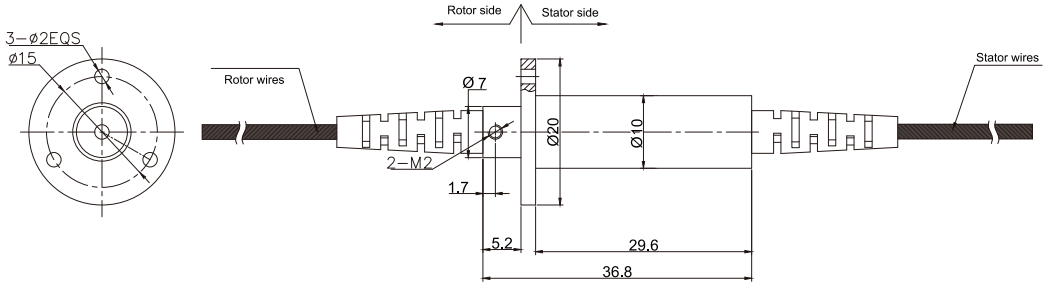


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (db)	1.5	0.7
Insert Loss Ripple (db)	0.6	0.4
Return Loss (db)	≥50(APC)	≥40
Max Power (w)	0.5	
Weight (g)	50g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	1000	
Working Life	>100 million rpm	
Working Temperature (℃)	-40~85℃	
Storage Temperature (℃)	-50~85℃	
Protection Grade	IP54 / IP65	
Fiber length	1m	

BFORJ100C SERIES

1 Channel (FORJ) Fiber Optic Slip Rings

BFORJ100C fiber optic slip ring support 1 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 100C - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

100C : 1 channel optical fiber

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

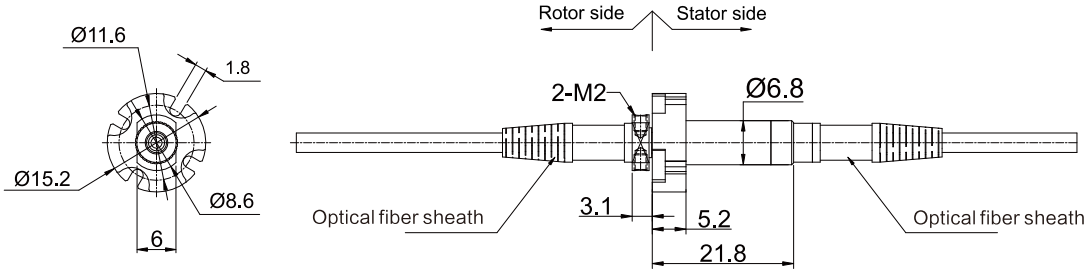


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Numerical value
Wavewidth (nm)	650-1650nm
Max Insert Loss , 23℃ (dB)	≤1.5dB
Insert Loss Ripple (dB)	≤0.7dB / （±0.35dB)
Return Loss (dB)	≤1.5dB
Max Power (w)	23dB
Weight (g)	10g
Max Rotating Speed (rpm)	2000 rpm
Working Life	>100 million rpm
Rotating torque	≤0.01N.m
Working Temperature (℃)	-20~60℃(-40~85℃ optional)
Storage Temperature (℃)	-45~85℃
Protection Grade	IP60(IP65、IP67 optional)
Fiber length	1m

BFORJ100D SERIES

1 Channel (FORJ) Fiber Optic Slip Rings

BFORJ100D fiber optic slip ring support 1 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 100D - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

100D : 1 channel optical fiber

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

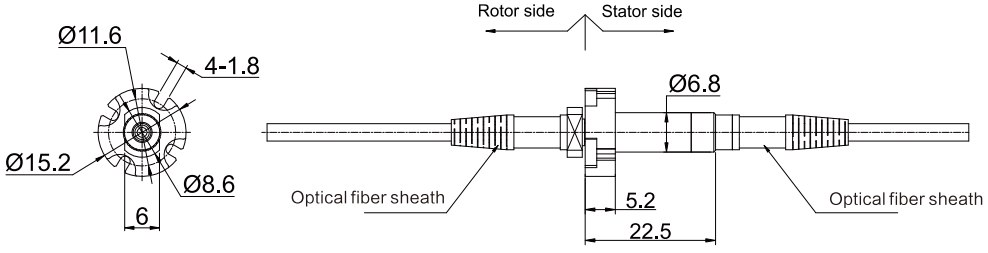


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Numerical value	
Wavewidth (nm)	Single-mode1310/1550	Multiple-mode 850/1310
Max Insert Loss , 23℃	≤55dB	
Insert Loss Ripple	≤3dB	
Return Loss	23dB	
Max Power (w)	23dB	
Weight (g)	10g	
Max Rotating Speed (rpm)	0~1500rpm	
Working Life	>30 million rpm	
Rotating torque	≤0.01N.m	
Working LifeWorking Temperature (℃)	-20~60℃(-40~85℃ optional)	
Storage Temperature (℃)	-45~85℃	
Protection Grade	IP60(IP65、IP67 optional)	
Fiber length	1m	

BFORJ100B2 SERIES

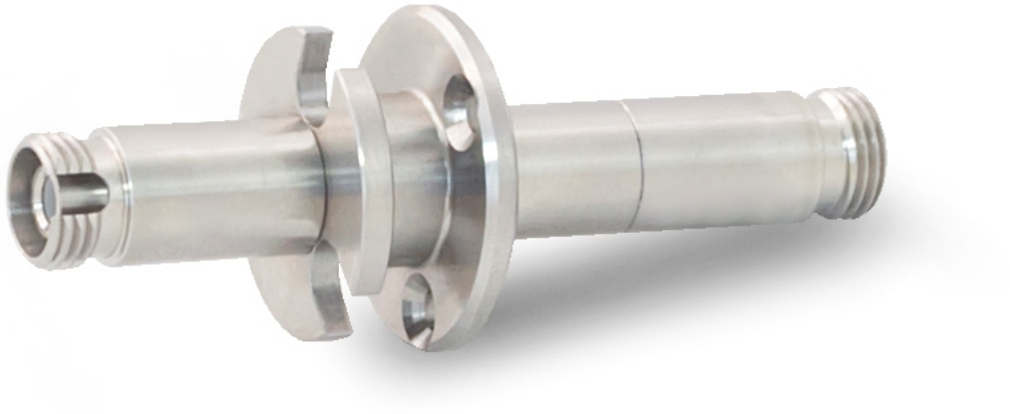
1 Channel (FORJ) Fiber Optic Slip Rings

BFORJ100B2 fiber optic slip ring support 1 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio

Product images



The pictures are for reference only

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Part# Explanation

BFORJ 100B2 - ① - ② - ③

BFORJ : Optical fiber or optoelectronic slip ring series code

100B2: Single channel fiber slip ring B2 class appearance

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

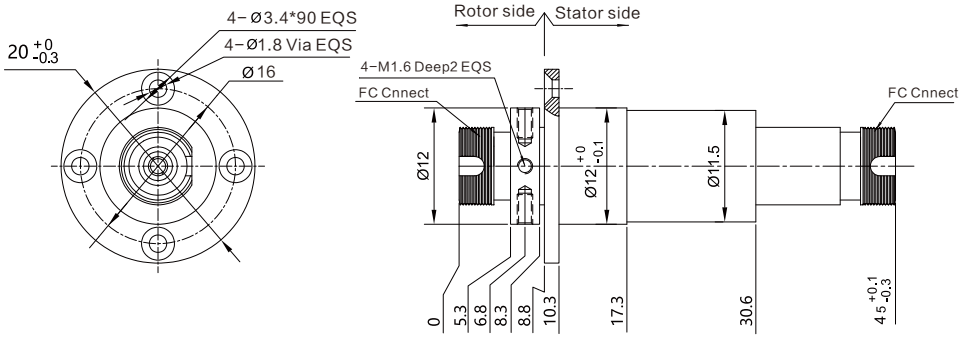

Table 1

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	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	2	2
Insert Loss Ripple (dB)	0.7	0.7
Return Loss (db)	≥50(APC) ≥40(PC)	≥40
Max Power (w)	0.5	
Weight (g)	50g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	1000	
Working Life	>500 million rpm	
Working Temperature (℃)	-40~85℃	
Storage Temperature (℃)	-50~85℃	
Protection Grade	IP65	

BFORJ102 SERIES

1 Channel Fiber Optic + electric Slip Rings

BFORJ102 can combinepannel optic fiber and electric (1-36wires) It adopt completealuminum alloyre , can support signal (5A)Rotary joint of FORJ + Electric is also called photoelectrical slip ring , photoelectricityollector ring , which adopts fiber optic as data transmissdia to soe dataransmission between svsteerredansmit data on 360 " rotating . It isalso especially suitable for occasion where it needs to transmit large volume data / signalrom permanent position to rotation position on unlimited , continuous or discontinuousprove mechanical property , simplify system operation and avoid theotating of turning joints destroy fiber optics Fiber optic rotary joint can be combined witraditional electricing 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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 102 - S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 102:Compact 1 channel optic fiber + electric slip ring
- S06:Signal ring,6 rings,0~5A / ring
- ①: Optical fiber type code , see table 1
- ②: Optical fiber connector code , see table 1
- ③: Wavelength code , see table 1

Dimensions

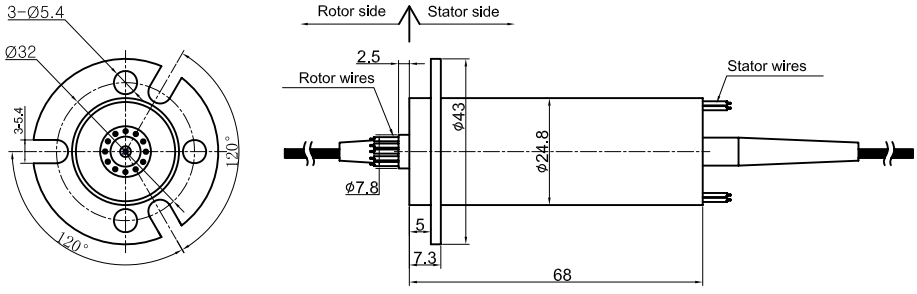

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

BFORJ102 Series Part#List

Part#	Optic fiber Channel	Signal/2A	Length(mm)
BFORJ102-S06	1	6	68
BFORJ102-S12	1	12	68
BFORJ102-S18	1	18	68

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

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	≤1.5dB	≤1.5dB
Insert Loss Ripple (dB)	≤0.7dB or ±0.35dB	
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	15g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	2000	
Working Life	>100 million rpm	
Working Temperature (℃)	-40~85℃	
Storage Temperature (℃)	-50~85℃	

Electrical parameters

Project	Power	Siana
Rated Voltage	220VAC/VDC	220VAC/VDC
Insulation Resistance	≥100MΩ/220VDC	≥100MΩ/220VDC
Lead wires	AWG28#Teflon	AWG28#Teflon
Lead Length	Standard 300mm (can be extend)	
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℃~ 80℃
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)

Web: www.orbinexus.com Email: Info@orbinexus.com

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

BFORJ107 SERIES

1 Channel Fiber Optic + electric Slip Rings

BFORJ107 can combinepannel optic fiber and electric (1-24wires) It adopt completealuminum alloyre , can support signal (5A)Rotary joint of FORJ + Electric is also called photoelectrical slip ring , photoelectricityollector ring , which adopts fiber optic as data transmissdia to soe dataransmission between svsteerredansmit data on 360 " rotating . It isalso especially suitable for occasion where it needs to transmit large volume data / signalrom permanent position to rotation position on unlimited , continuous or discontinuousprove mechanical property , simplify system operation and avoid theotating of turning joints destroy fiber optics Fiber optic rotary joint can be combined witraditional electricing 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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 107 - S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 107:Compact 1 channel optic fiber + electric slip ring OD 33mm
- S06:Signal ring,6 rings,0~5A / ring
- ① Optical fiber type code , see table 1
- ② Optical fiber connector code , see table 1
- ③ Wavelength code , see table 1

Dimensions

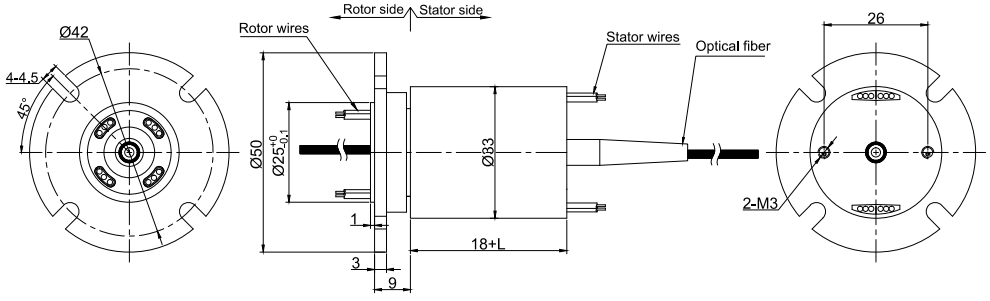

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

BFORJ107 Series Part#List

Part#	Optic fiber Channel	Signal/5A	Length(mm)
BFORJ107-S06	1	6	25.4
BFORJ107-S12	1	12	39.2
BFORJ107-S18	1	18	53
BFORJ107-S18	1	24	66.8

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

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	≤1.5dB	≤1.5dB
Insert Loss Ripple (dB)	≤0.7dB or ±0.35dB	
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	15g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	2000	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-45~85℃	

Electrical parameters

Project	Power	Siana
Rated Voltage	240VAC/VDC	240VAC/VDC
Insulation Resistance	≥500MΩ/300VDC	≥200MΩ/300VDC
Lead wires	AWG28#Teflon	AWG28#Teflon
Lead Length	Standard 100mm (can be extend)	
Dielectric Strength	200VAC@50Hz，60s	
Electrical noise	<0.01Ω	

Mechanical Data

Project	Value
Rated Voltage	20 million turn
Insulation Resistance	250 RPM
Lead wires	-30℃~ 80℃
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)

Web: www.orbinexus.com Email: Info@orbinexus.com

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

BFORJ108 SERIES

1 Channel Fiber Optic + electric Slip Rings

BFORJ108 can combinepannel optic fiber and electric (1- 48wires) It adopt completealuminum alloyre , can support signal (5A)Rotary joint of FORJ + Electric is also called photoelectrical slip ring , photoelectricityollector ring , which adopts fiber optic as data transmissdia to soe dataransmission between svsteerredansmit data on 360 " rotating . It isalso especially suitable for occasion where it needs to transmit large volume data / signalrom permanent position to rotation position on unlimited , continuous or discontinuousprove mechanical property , simplify system operation and avoid theotating of turning joints destroy fiber optics Fiber optic rotary joint can be combined witraditional electricing 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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 108 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 108:Compact 1 channel optic fiber + electric slip ring OD 56mm
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ① Optical fiber type code , see table 1
- ② Optical fiber connector code , see table 1
- ③ Wavelength code , see table 1

Dimensions

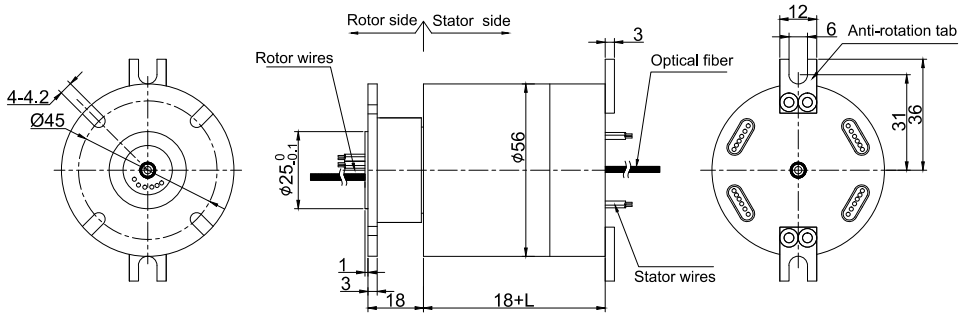

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

BFORJ108 Series Part#List

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ108-S06	1	0	0	38
BFORJ108-P0610	1	6	6	38
BFORJ108-S12	1	0	12	54.8
BFORJ108-P1210	1	12	0	54.8
BFORJ108-P0610-S06	1	6	6	54.8
BFORJ108-S18	1	0	18	71.6
BFORJ108-P1810	1	18	0	71.6
BFORJ108-S24	1	0	24	88.4
BFORJ108-P1210-S12	1	12	12	88.4
BFORJ108-P0610-S18	1	6	18	88.4
BFORJ108-S30	1	0	30	105.2
BFORJ108-S36	1	0	36	125
BFORJ108-S42	1	0	42	141.8
BFORJ108-S48	1	0	48	158.6

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

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (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 (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-45~85℃	

Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	240VAC/VDC
Insulation Resistance	≥1000MΩ/500VDC	≥1000MΩ/500VDC
Lead wires	AWG17#Teflon	AWG22#Teflon
Lead Length	Standard 300mm (can be extend)	
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℃~ 80℃
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)

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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

BFORJ109 SERIES

1 Channel Fiber Optic + electric Slip Rings

BFORJ109 can combinepannel optic fiber and electric (1- 96wires) It adopt completealuminum alloyre , can support signal (5A)Rotary joint of FORJ + Electric is also called photoelectrical slip ring , photoelectricityollector ring , which adopts fiber optic as data transmissdia to soe dataransmission between svsteerredansmit data on 360 " rotating . It isalso especially suitable for occasion where it needs to transmit large volume data / signalrom permanent position to rotation position on unlimited , continuous or discontinuousprove mechanical property , simplify system operation and avoid theotating of turning joints destroy fiber optics Fiber optic rotary joint can be combined witraditional electricing 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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 109 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 109:Compact 1 channel optic fiber + electric slip ring OD 86mm
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

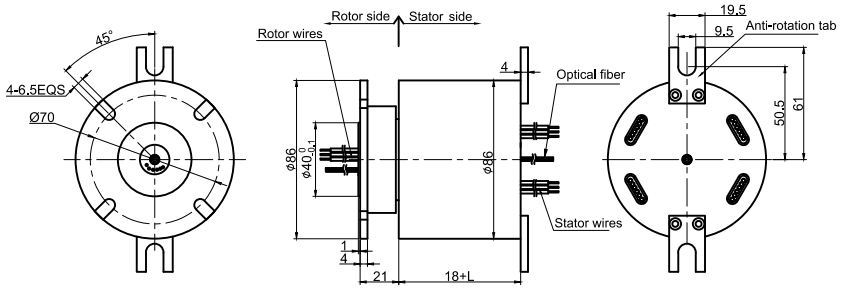

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , 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
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (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 (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-45~85℃	

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	

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Electrical noise	<0.01Ω

Mechanical Data

Project	Value
Rated Voltage	20 million turn
Insulation Resistance	250 RPM
Lead wires	-30℃~ 80℃
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

BFORJ200 SERIES

2 Channel (FORJ) Fiber Optic Slip Rings

BFORJ200 fiber optic slip ring support 2 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 200 - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

200 : 2 channel optical fiber,

Optical fiber type code , see table 1

Optical fiber connector code , see table 1

Wavelength code , see table 1

Dimensions

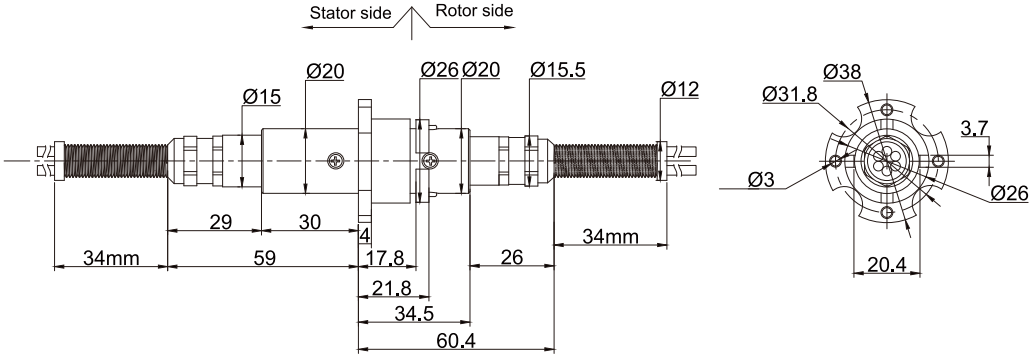


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	4dB	4dB
Insert Loss Ripple (dB)	2dB	2dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	160g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ200C SERIES

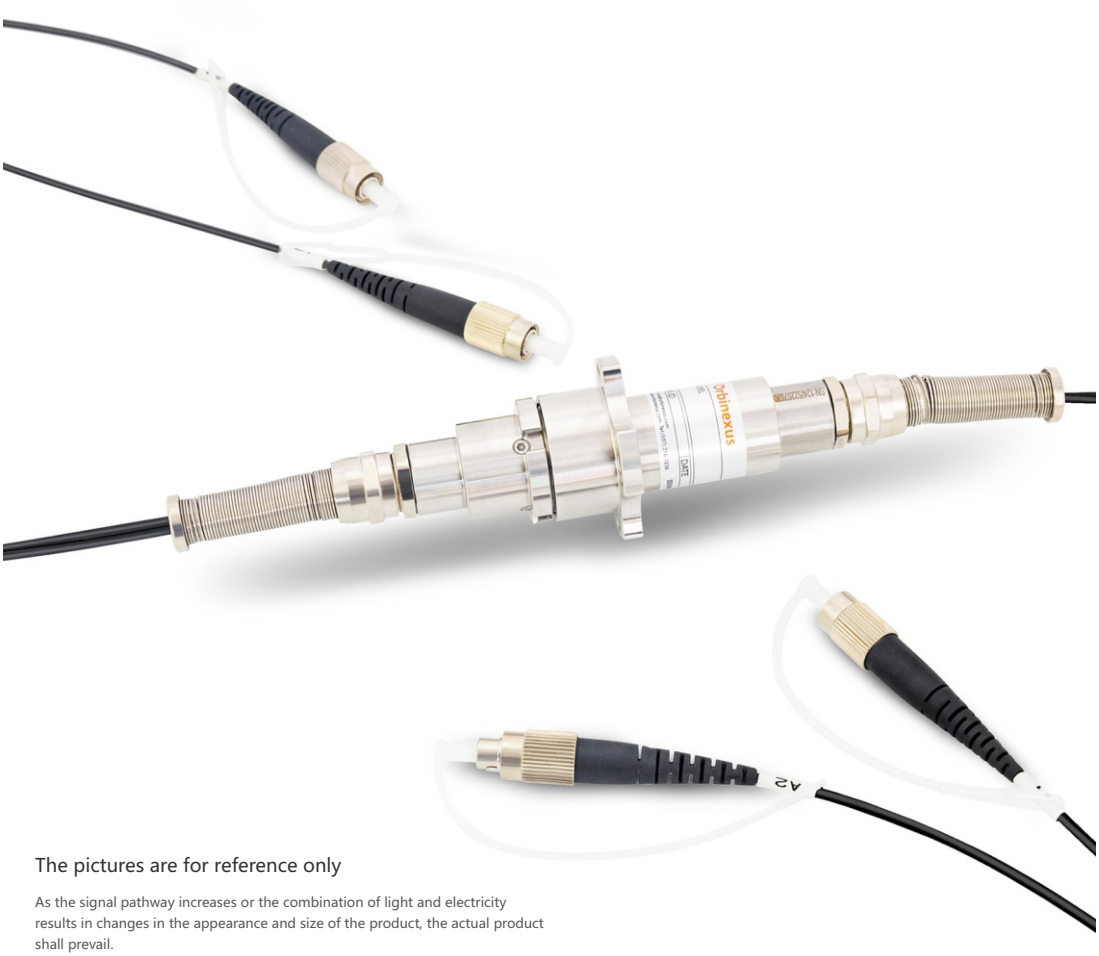
2 Channel (FORJ) Fiber Optic Slip Rings

BFORJ200C fiber optic slip ring support 2 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio
- LOSS BELOW 1.5-2dB can be customized

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.

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Part# Explanation

BFORJ 200C - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

200C : 2 channel optical fiber, C type shape

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

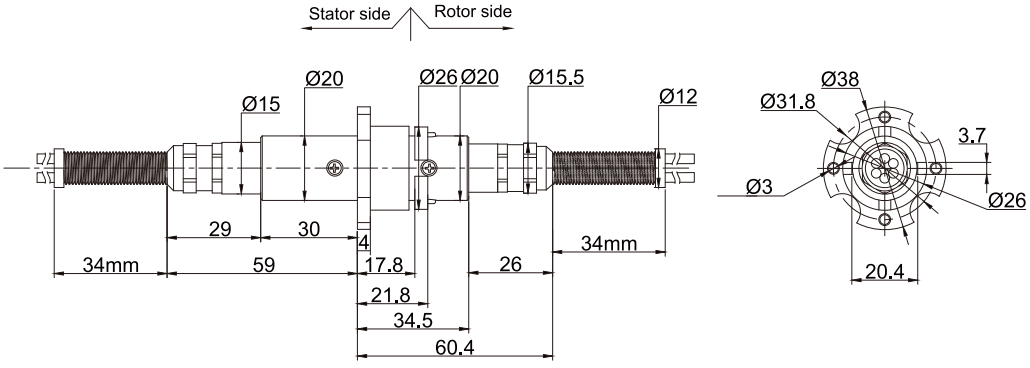

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	≤3.5dB	≤3.5dB
Insert Loss Ripple (dB)	1.5	1.5
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	200g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ200E SERIES

2 Channel (FORJ) Fiber Optic Slip Rings

BFORJ200E fiber optic slip ring support 2 channel fiber optic (SM / MM) . It can perfecttransmit data on 360 " rotating . It is also especially suitaboccasion where it needstransmit large volume data / signal from permanent position to rotation position undermited , continuous or discontinuous rotating , which can improve mechanical property ,implify system operation and avoid the rotating of turning joints destroying fiber optics

Features

- Low insertion loss , high rotation speed
- Non-contact , zero friction , long working life 1 channel can achieve one hundred million revolutions
- Small size , light weight , high sealing class
- Fiber optic transmitting signal , no electromagnetic interference , long-distance transmissio
- LOSS BELOW 1.5-2dB can be customized
- One end is a side exit, saving axial space

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 200E - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

200E : 2 channel optical fiber, E type shape

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

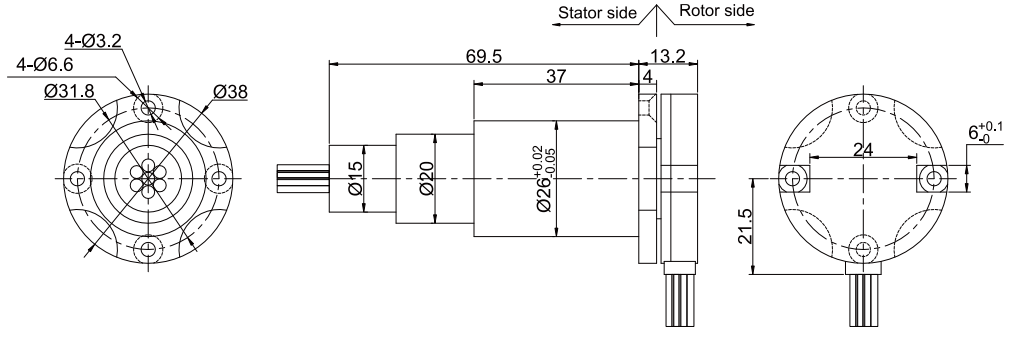

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	≤3.5dB	≤3.5dB
Insert Loss Ripple (dB)	1.5	1.5
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	185g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ208 SERIES

2 Channel Fiber Optic+electric Slip Rings

BFORJ208 can combine 2 channels optic fiber and electric(1-72wires) It adopt completealuminum alloy structure, can support signal(5ARotary joint of FORJ+Electric is also called photoelectrical slip ring, photoelectricitycollector ring, which adopts fiber optic as data transmission media to solve the datatransmission between system units. It can perfectly transmit data on 360 rotating. It isalso especially suitable for occasion where it needs to transmit large volume data/signafrom permanent position to rotation position on unlimited, continuous or discontinuerotating, which can improve mechanical property, simplify system operation and avoidthe rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combinedwith traditional electric slip ring 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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 109 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 208:Compact 2 channel optic fiber + electric slip ring
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

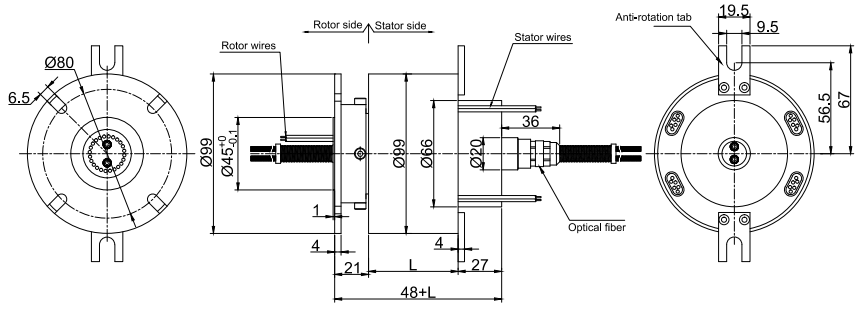

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

BFORJ208 Series Part#List

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ208-S02	2	0	2	55.6
BFORJ208-P0210	2	2	0	55.6
BFORJ208-S03	2	0	3	55.6
BFORJ208-P0310	2	3	0	55.6
BFORJ208-S06	2	0	6	55.6
BFORJ208-P0210-S04	2	2	4	55.6
BFORJ208-P0410-S02	2	4	2	55.6
BFORJ208-P0610	2	6	0	55.6
BFORJ208-S12	2	0	12	78.4
BFORJ208-P0210-S10	2	2	10	78.4
BFORJ208-P0310-S09	2	3	9	78.4
BFORJ208-P0610-S06	2	6	6	78.4
BFORJ208-P0810-S04	2	8	4	78.4
BFORJ208-P1010-S02	2	10	2	78.4
BFORJ208-P0210	2	12	0	78.4

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ208-S18	2	0	18	101.2
BFORJ208-P0210-S16	2	2	16	101.2
BFORJ208-P0410-S14	2	4	14	101.2
BFORJ208-P0610-S12	2	6	12	101.2
BFORJ208-P0810-S10	2	8	10	101.2
BFORJ208-P1010-S08	2	10	8	101.2
BFORJ208-P1210-S06	2	12	6	101.2
BFORJ208-P1410-S04	2	14	4	101.2
BFORJ208-P1610-S02	2	16	2	101.2
BFORJ208-P1810	2	18	0	101.2
BFORJ208-S24	2	0	24	124
BFORJ208-P1210-S12	2	12	12	124
BFORJ208-P1810-S06	2	18	6	124
BFORJ208-P2410	2	24	0	124
BFORJ208-S03	2	0	30	151.8
BFORJ208-P0610-S24	2	6	24	151.8
BFORJ208-P1210-S18	2	12	18	151.8
BFORJ208-P1810-S12	2	18	12	151.8
BFORJ208-P2410-S06	2	24	6	151.8
BFORJ208-P3010	2	30	0	151.8
BFORJ208-S36	2	0	36	174.6
BFORJ208-P0610-S30	2	6	30	174.6
BFORJ208-P1210-S24	2	12	24	174.6
BFORJ208-P3610	2	36	0	174.6
BFORJ208-S42	2	0	42	220.2
BFORJ208-P0610-S36	2	6	36	220.2
BFORJ208-P1210-S30	2	12	30	220.2
BFORJ208-S48	2	0	48	220.2
BFORJ208-P0610-S42	2	6	42	220.2
BFORJ208-P0910-S39	2	9	39	220.2
BFORJ208-P1210-S36	2	12	36	220.2
BFORJ208-P1810-S30	2	18	30	220.2
BFORJ208-P2410-S24	2	24	24	220.2
BFORJ208-S06	2	0	60	270.8
BFORJ208-P0610-S54	2	6	54	270.8
BFORJ208-P0810-S52	2	8	52	270.8
BFORJ208-P1010-S0	2	10	50	270.8

Bers and high current can be customized , please contact customer service for more models

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	3.5dB	3.5dB
Insert Loss Ripple (dB)	1.5dB	1.5dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	200g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-45~85℃	

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Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	440VAC/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℃~ 80℃
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

BFORJ400 SERIES

4 Channel (FORJ) Fiber Optic Slip Rings

MFO400 fiber optic slip ring support 4 channels fiber optic(SM/MM). It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position under unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroying fiber optics.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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.

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Part# Explanation

BFORJ 400 - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

400 : 4 channel optical fiber

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

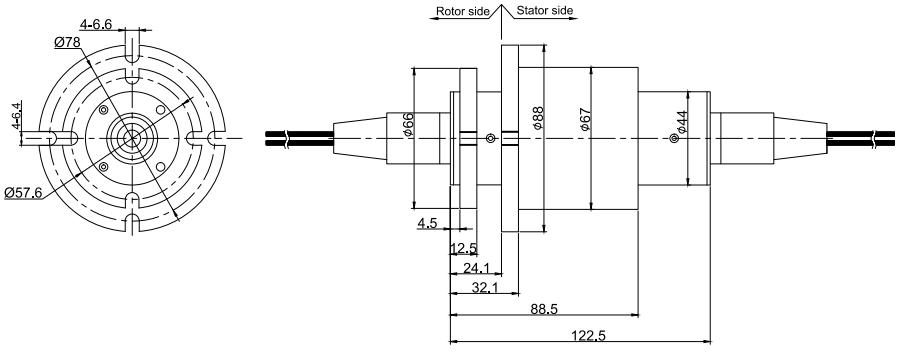


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

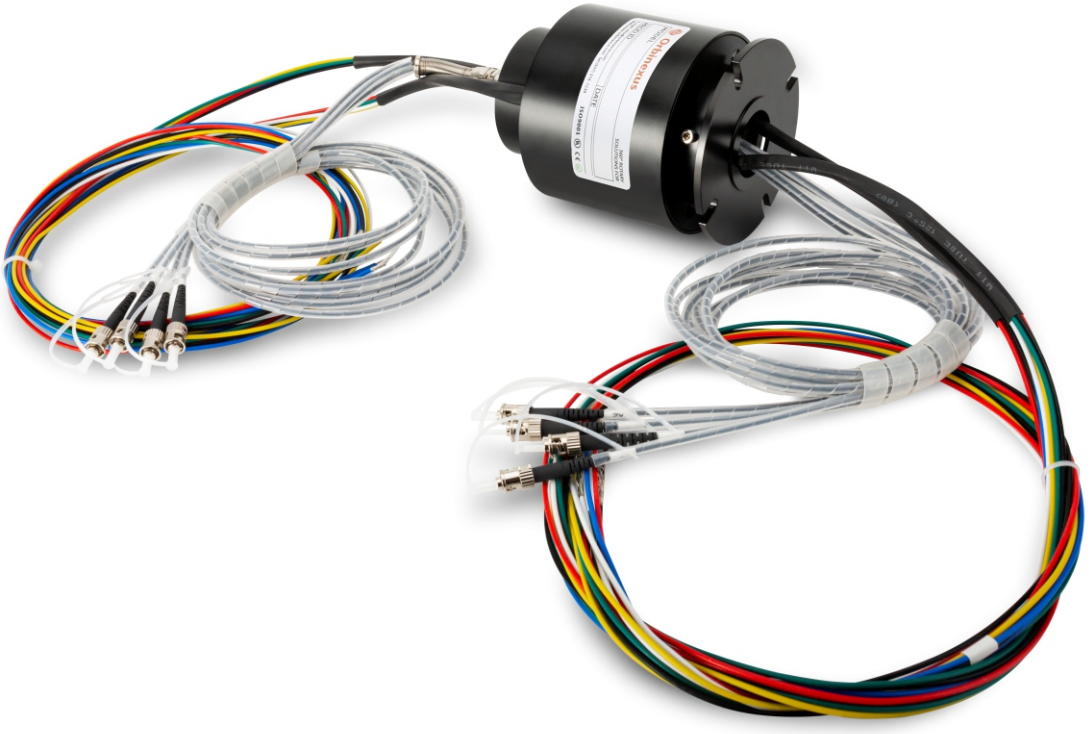
Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	0.5	
Weight (g)	1.6Kg (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ408 SERIES

4 Channel Fiber Optic+electric Slip Rings

MFO408 can combine 4 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring 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.

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Part# Explanation

BFORJ 408 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 408: 4 channel optic fiber + electric slip ring
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

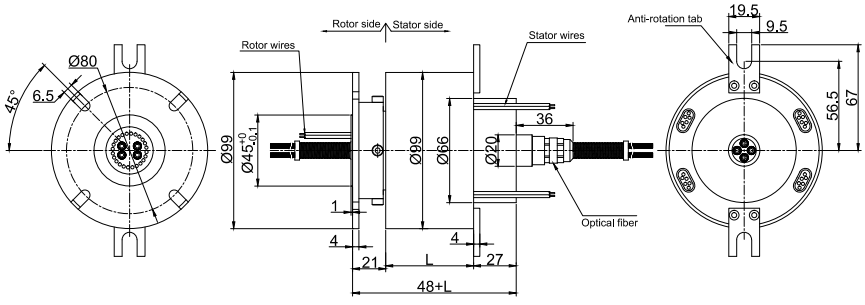

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , 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)
BFORJ408-S02	4	0	2	55.6
BFORJ408-P0210	4	2	0	55.6
BFORJ408-S03	4	0	3	55.6
BFORJ408-S0310	4	3	0	55.6
BFORJ408-S06	4	0	6	55.6
BFORJ408-P0210-S04	4	2	4	55.6
BFORJ408-P0410-S02	4	4	2	55.6
BFORJ408-P0610	4	6	0	55.6
BFORJ408-S12	4	0	12	78.4
BFORJ408-P0210-S10	4	2	10	78.4
BFORJ408-P0310-S09	4	3	9	78.4
BFORJ408-S0610-S06	4	6	6	78.4
BFORJ408-P0810-S04	4	8	4	78.4
BFORJ408-P1010-S02	4	10	2	78.4
BFORJ408-P1210	4	12	0	78.4

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ408-S18	4	0	18	101.2
BFORJ408-P0210-S16	4	2	16	101.2
BFORJ408-P0410-S14	4	4	14	101.2
BFORJ408-P0610-S12	4	6	12	101.2
BFORJ408-P0810-S10	4	8	10	101.2
BFORJ408-P1010-S08	4	10	8	101.2
BFORJ408-P1210-S06	4	12	6	101.2
BFORJ408-P1410-S04	4	14	4	101.2
BFORJ408-P1610-S02	4	16	2	101.2
BFORJ408-P1810	4	18	0	101.2
BFORJ408-S24	4	0	24	124
BFORJ408-P1210-S12	2	12	12	124
BFORJ408-P1810-S06	2	18	6	124
BFORJ408-P2410	2	24	0	124
BFORJ408-S03	2	0	30	151.8
BFORJ408-P0610-S24	2	6	24	151.8
BFORJ408-P1210-S18	2	12	18	151.8
BFORJ408-P1810-S12	2	18	12	151.8
BFORJ408-P2410-S06	2	24	6	151.8
BFORJ408-P3010	2	30	0	151.8
BFORJ408-S36	2	0	36	174.6
BFORJ408-P0610-S30	2	6	30	174.6
BFORJ408-P1210-S24	2	12	24	174.6
BFORJ408-P3610	2	36	0	174.6
BFORJ408-S42	2	0	42	220.2
BFORJ408-P0610-S36	2	6	36	220.2
BFORJ408-P1210-S30	2	12	30	220.2
BFORJ408-S48	2	0	48	220.2
BFORJ408-P0610-S42	2	6	42	220.2
BFORJ408-P0910-S39	2	9	39	220.2
BFORJ408-P1210-S36	2	12	36	220.2
BFORJ408-P1810-S30	2	18	30	220.2
BFORJ408-P2410-S24	2	24	24	220.2
BFORJ408-S06	2	0	60	270.8
BFORJ408-P0610-S54	2	6	54	270.8
BFORJ408-P0810-S52	2	8	52	270.8
BFORJ408-P1010-S0	2	10	50	270.8

Circuit numbers and high current can be customized, please contact customer service for more models.

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	3.5dB	3.5dB
Insert Loss Ripple (dB)	1.5dB	1.5dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (w)	23	
Weight (g)	200g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-45~85℃	

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Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	440VAC/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℃~ 80℃
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

BFORJ600 SERIES

6 Channel Fiber Optic Slip Rings

MFO600 fiber optic slip ring support 6 channels fiber optic(SM/MM). It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position under unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroying fiber optics.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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.

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Part# Explanation

BFORJ 600 - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

600 : 6 channel optical fiber

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

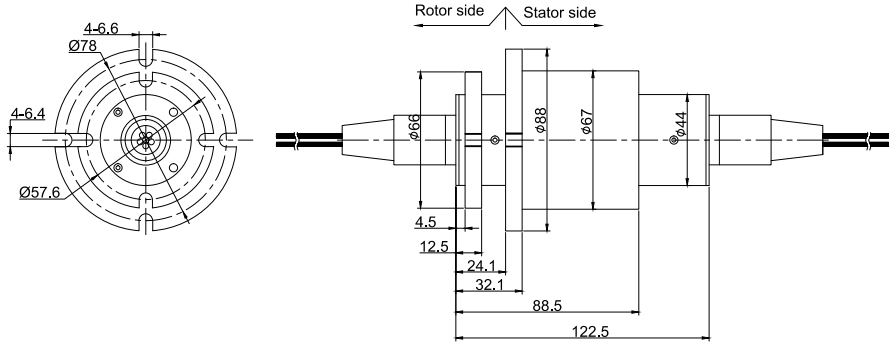


Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

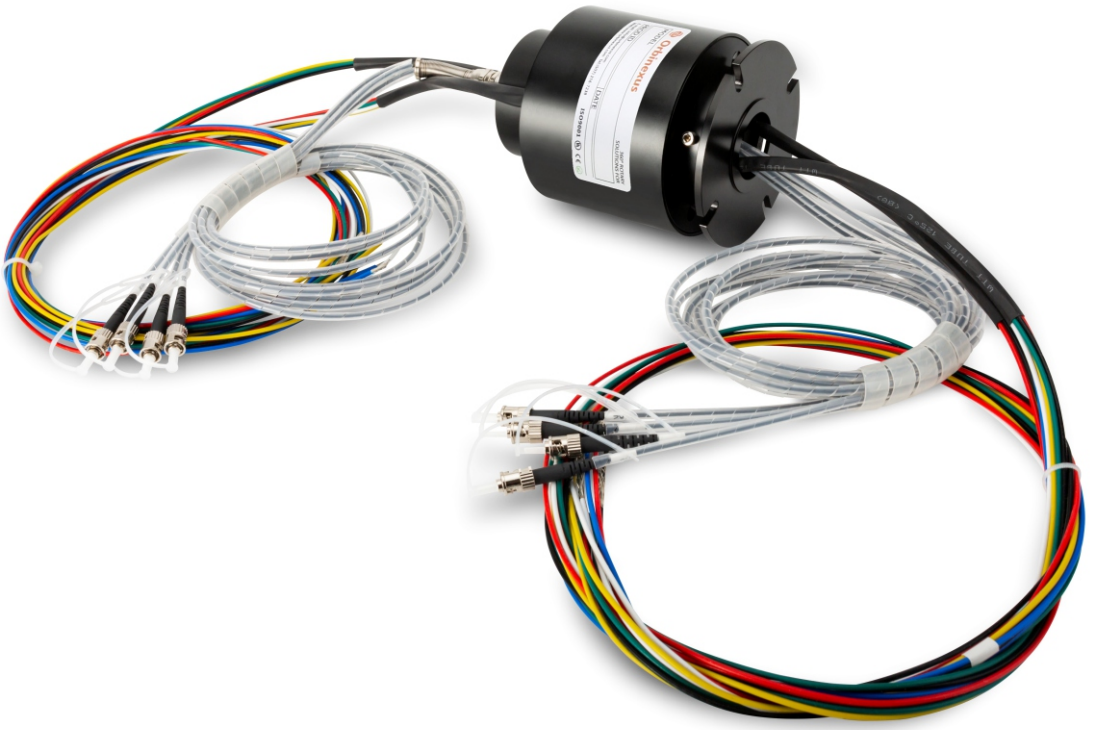
Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	1.6Kg (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ608 SERIES

6 Channel Fiber Optic+electric Slip Rings

MFO608 can combine 6 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring 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.

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Part# Explanation

BFORJ 608 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 608: 6 channel optic fiber + electric slip ring
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

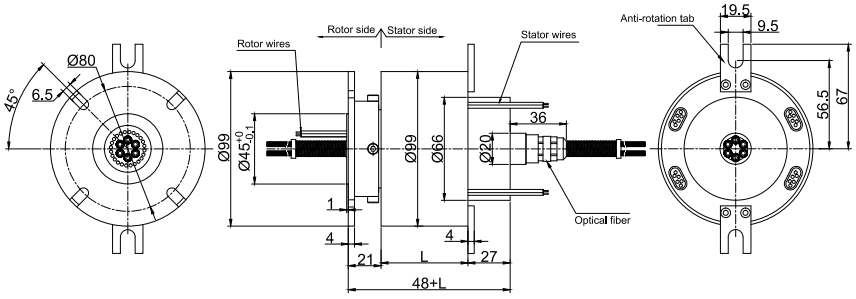

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , 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)
BFORJ608-S02	6	0	2	55.6
BFORJ608-P0210	6	2	0	55.6
BFORJ608-S03	6	0	3	55.6
BFORJ608-P0310	6	3	0	55.6
BFORJ608-S06	6	0	6	55.6
BFORJ608-P0210-S04	6	2	4	55.6
BFORJ608-P0410-S02	6	4	2	55.6
BFORJ608-P0610	6	6	0	55.6
BFORJ608-S12	6	0	12	78.4
BFORJ608-P0210-S10	6	2	10	78.4
BFORJ608-P0310-S09	6	3	9	78.4
BFORJ608-P0610-S06	6	6	6	78.4
BFORJ608-P0810-S04	6	8	4	78.4
BFORJ608-P1010-S02	6	10	2	78.4
BFORJ608-P1210	6	12	0	78.4

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ608-S18	6	0	18	101.2
BFORJ608-P0210-S16	6	2	16	101.2
BFORJ608-P0410-S14	6	4	14	101.2
BFORJ608-P0610-S12	6	6	12	101.2
BFORJ608-P0810-S10	6	8	10	101.2
BFORJ608-P1010-S08	6	10	8	101.2
BFORJ608-P1210-S06	6	12	6	101.2
BFORJ608-P1410-S04	6	14	4	101.2
BFORJ608-P1610-S02	6	16	2	101.2
BFORJ608-P1810	6	18	0	101.2
BFORJ608-S24	6	0	24	124
BFORJ608-P1210-S12	6	12	12	124
BFORJ608-P1810-S06	6	18	6	124
BFORJ608-P2410	6	24	0	124
BFORJ608-S30	6	0	30	151.8
BFORJ608-P0610-S24	6	6	24	151.8
BFORJ608-P1210-S18	6	12	18	151.8
BFORJ608-P1810-S12	6	18	12	151.8
BFORJ608-P2410-S06	6	24	6	151.8
BFORJ608-P3010	6	30	0	151.8
BFORJ608-S36	6	0	36	174.6
BFORJ608-P0610-S30	6	6	30	174.6
BFORJ608-P1210-S24	6	12	24	174.6
BFORJ608-P3610	6	36	0	174.6
BFORJ608-S42	6	0	42	220.2
BFORJ608-P0610-S36	6	6	36	220.2
BFORJ608-P1210-S30	6	12	30	220.2
BFORJ608-S48	6	0	48	220.2
BFORJ608-P0610-S42	6	6	42	220.2
BFORJ608-P0910-S39	6	9	39	220.2
BFORJ608-P1210-S36	6	12	36	220.2
BFORJ608-P1810-S30	6	18	30	220.2
BFORJ608-P2410-S24	6	24	24	220.2
BFORJ608-S60	6	0	60	270.8
BFORJ608-P0610-S54	6	6	54	270.8
BFORJ608-P0810-S52	6	8	52	270.8
BFORJ608-P1010-S0	6	10	50	270.8

Circuit numbers and high current can be customized, please contact customer service for more models.

fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	3.5dB	3.5dB
Insert Loss Ripple (dB)	1.5dB	1.5dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	200g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-50~85℃	

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Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	440VAC/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℃~ 80℃
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

BFORJ800 SERIES

8 Channel Fiber Optic Slip Rings

MFO800 fiber optic slip ring support 8 channels fiber optic(SM/MM). It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position under unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroying fiber optics.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 800 - ① - ② - ③

BFORJ : Optical fiber or
Optical fiber + Electric slip ring

800 : 8 channel optical fiber

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

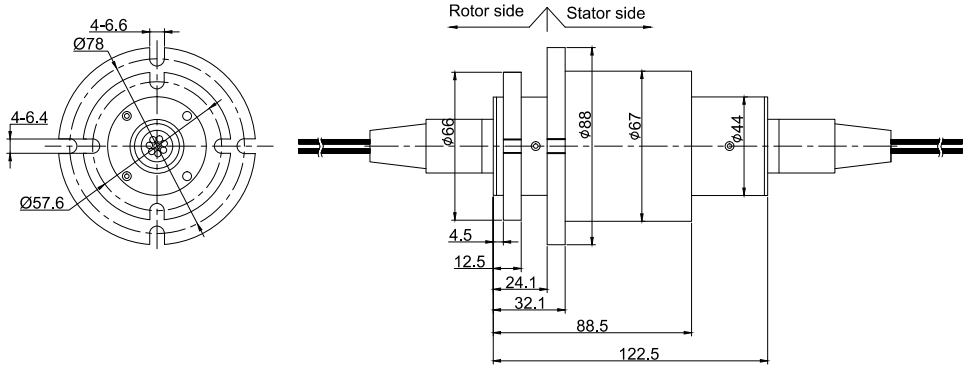

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	1.6Kg (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>200 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

BFORJ808 SERIES

8 Channel Fiber Optic+electric Slip Rings

MFO808 can combine 8 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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.

Web: www.orbinexus.com Email: Info@orbinexus.com

Part# Explanation

BFORJ 808 - P0610- S06 - ① - ② - ③

- BFORJ : Optical fiber or optoelectronic slip ring series code
- 808: 8 channel optic fiber + electric slip ring
- P0610 : power ring,6 rings,0~10A/ring
- S06:Signal ring,6 rings,0~5A / ring
- ③ Wavelength code , see table 1
- ② Optical fiber connector code , see table 1
- ① Optical fiber type code , see table 1

Dimensions

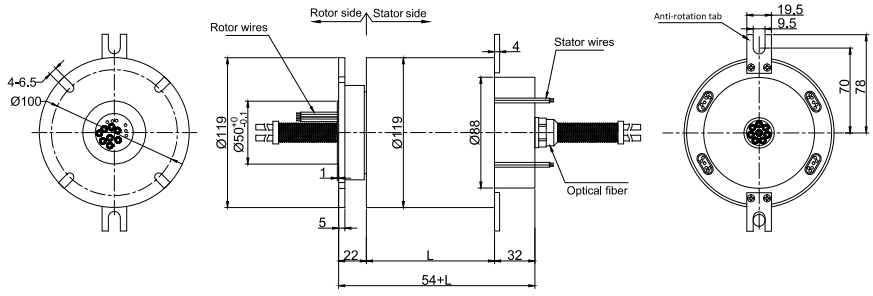

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , 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)
BFORJ808-S02	8	0	2	58.6
BFORJ808-P0210	8	2	0	58.6
BFORJ808-S03	8	0	3	58.6
BFORJ808-P0310	8	3	0	58.6
BFORJ808-S06	8	0	6	58.6
BFORJ808-P0210-S04	8	2	4	58.6
BFORJ808-P0410-S02	8	4	2	58.6
BFORJ808-P0610	8	6	0	58.6
BFORJ808-S12	8	0	12	814
BFORJ808-P0210-S10	8	2	10	81.4
BFORJ808-P0310-S09	8	3	9	81.4
BFORJ808-P0610-S06	8	6	6	81.4
BFORJ808-P0810-S04	8	8	4	81.4
BFORJ808-P1010-S02	8	10	2	81.4
BFORJ808-P1210	8	12	0	81.4

Part#	Optic fiber Channel	10A	Signal/5A	Length(mm)
BFORJ808-S18	8	0	18	104.2
BFORJ808-P0210-S16	8	2	16	104.2
BFORJ808-P0410-S14	8	4	14	104.2
BFORJ808-P0610-S12	8	6	12	104.2
BFORJ808-P0810-S10	8	8	10	104.2
BFORJ808-P1010-S08	8	10	8	104.2
BFORJ808-P1210-S06	8	12	6	104.2
BFORJ808-P1410-S04	8	14	4	104.2
BFORJ808-P1610-S02	8	16	2	104.2
BFORJ808-P1810	8	18	0	104.2
BFORJ808-S24	8	0	24	127
BFORJ808-P0410-S20	8	4	20	127
BFORJ808-P0610-S18	8	6	18	127
BFORJ808-P1210-S12	8	12	12	127
BFORJ808-P1810-S06	8	18	6	127
BFORJ808-P2410	8	24	0	127
BFORJ808-S30	8	0	30	154.8
BFORJ808-P0610-S24	8	6	24	154.8
BFORJ808-P1210-S18	8	12	18	154.8
BFORJ808-P1810-S12	8	18	12	154.8
BFORJ808-P2410-S06	8	24	6	154.8
BFORJ808-P3010	8	30	0	154.8
BFORJ808-S36	8	0	36	177.6
BFORJ808-P0610-S30	8	6	30	177.6
BFORJ808-P1210-S24	8	12	24	177.6
BFORJ808-P3610	8	36	0	177.6
BFORJ808-S42	8	0	42	223.2
BFORJ808-P0610-S36	8	6	36	223.2
BFORJ808-P1210-S30	8	12	30	223.2
BFORJ808-S48	8	0	48	223.2
BFORJ808-P0610-S42	8	6	42	223.2
BFORJ808-P0910-S39	8	9	39	223.2
BFORJ808-P1210-S36	8	12	36	223.2
BFORJ808-P1810-S30	8	18	30	223.2
BFORJ808-P2410-S24	8	24	24	223.2
BFORJ808-S60	8	0	60	273.8
BFORJ808-P0610-S54	8	6	54	273.8
BFORJ808-P0910-S51	8	9	51	273.8
BFORJ808-P1210-S48	8	12	48	273.8
BFORJ808-S72	8	0	72	319.4
BFORJ808-P0610-S66	8	6	66	319.4
BFORJ808-P1210-S60	8	12	60	319.4
BFORJ808-P2410-S48	8	24	48	319.4
BFORJ808-P3610-S36	8	36	36	319.4
BFORJ808-S84	8	0	84	368
BFORJ808-P1210-S72	8	12	72	368
BFORJ808-P2410-S60	8	24	60	368
BFORJ808-P3610-S48	8	36	48	368
BFORJ808-S96	8	0	96	413.6

Circuit numbers and high current can be customized, please contact customer service for more models.

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fiber parameters

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	3.5dB	3.5dB
Insert Loss Ripple (dB)	1.5dB	1.5dB
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	200g	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (-40~85℃ Optional)	
Storage Temperature (℃)	-50~85℃	

Electrical parameters

Project	Power	Siana
Rated Voltage	440VAC/VDC	440VAC/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℃~ 80℃
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.

8, 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

BFORJ1000C SERIES

10 Channel Fiber Optic Slip Rings

MFO1000C can combine 10 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 1000C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

1000C : 10 channel optical fiber C type shape

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

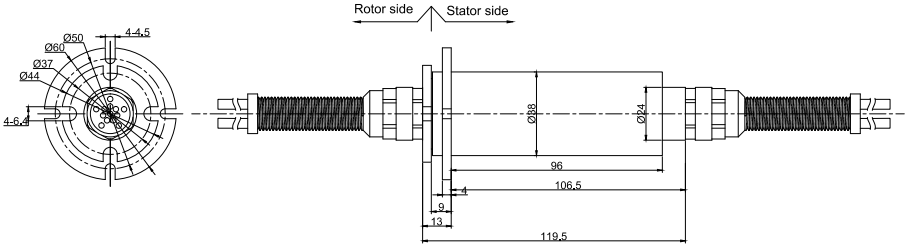

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23°C (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 （APC） ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g （Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ （Civil use） -40~85℃ （military）	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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BFORJ1200C SERIES

12 Channel Fiber Optic Slip Rings

MFO1200C can combine 12 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 1200C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

1200C : 10 channel optical fiber C type shape

Optical fiber type code , see table 1

Optical fiber connector code , see table 1

Wavelength code , see table 1

Dimensions

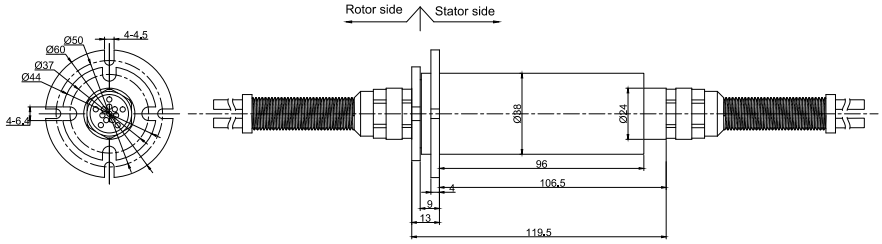

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23°C (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 （APC） ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g （Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ （Civil use） -40~85℃ （military）	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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BFORJ1600C SERIES

16 Channel Fiber Optic Slip Rings

MFO1600C can combine 12 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 1600C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

1600C : 16 channel optical fiber C type shape

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

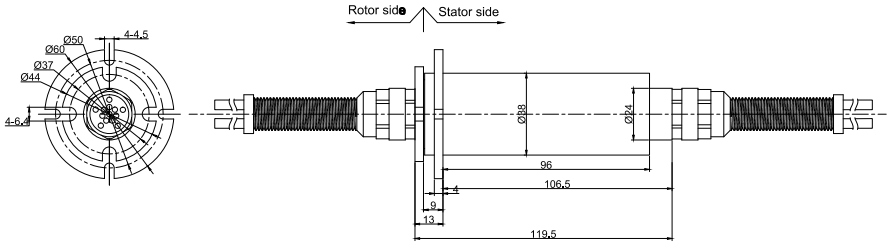

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23°C (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	250	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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BFORJ2000C SERIES

20 Channel Fiber Optic Slip Rings

MFO2000C can combine 20 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 2000C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

2000C : 20 channel optical fiber C type shape

③ Wavelength code , see table 1

② Optical fiber connector code , see table 1

① Optical fiber type code , see table 1

Dimensions

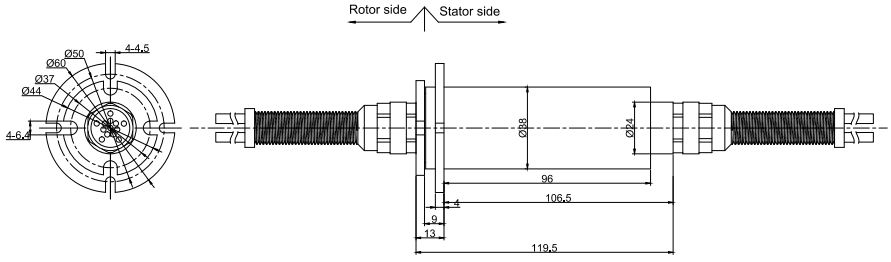

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23℃ (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 （APC） ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g （Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	250	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ （Civil use） -40~85℃ （military）	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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BFORJ2400C SERIES

24 Channel Fiber Optic Slip Rings

MFO2400C can combine 24 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 2400C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

2400C : 24 channel optical fiber C type shape

Optical fiber type code , see table 1

Optical fiber connector code , see table 1

Wavelength code , see table 1

Dimensions

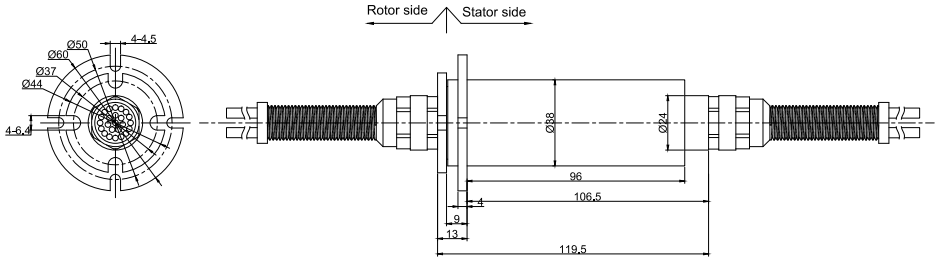

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23°C (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 （APC） ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g （Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	250	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ （Civil use） -40~85℃ （military）	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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BFORJ2600C SERIES

26 Channel Fiber Optic Slip Rings

MFO2600C can combine 26 channels optic fiber and electric(1~72wires). It adopt complete aluminum alloy structure, 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 media to solve the data transmission between system units. It can perfectly transmit data on 360° rotating. It is also especially suitable for occasion where it needs to transmit large volume data/signal from permanent position to rotation position on unlimited, continuous or discontinuous rotating, which can improve mechanical property, simplify system operation and avoid the rotating of turning joints destroy fiber optics. Fiber optic rotary joint can be combined with traditional electric slip ring to transmit power and high-speed data.

Features

- Low insertion loss, high rotation speed
- Non-contact, zero friction, long working life, single core can achieve one hundred million revolutions
- Small size, light weight, high sealing class
- Fiber optics transmitting signal, no leaks, no electromagnetic interference, long-distance transmission

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

BFORJ 2600C - ① - ② - ③

BFORJ : Optical fiber or Optical fiber slip ring

2600C : 26 channel optical fiber C type shape

Wavelength code , see table 1

Optical fiber connector code , see table 1

Optical fiber type code , see table 1

Dimensions

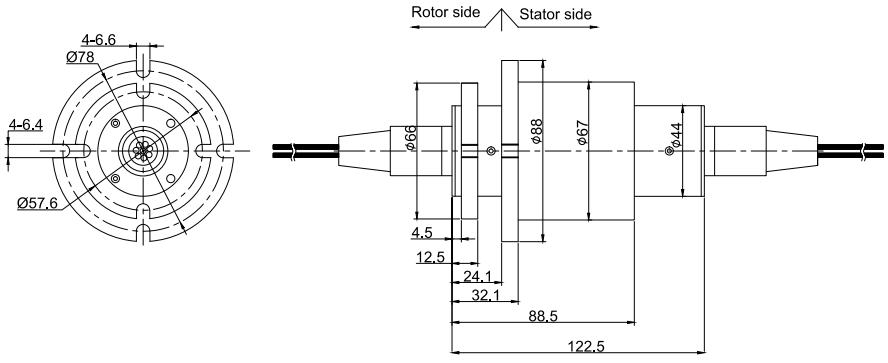

Table 1

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 defaultIf APC is needed . APC shouldbe added behindAPC , such as FC / APC	01:1310/1550 (single-mode) 02:850/1310 (multiple-mode)

Specifications

Project	Single-mode	Multiple-mode
Wavewidth (nm)	±50	
Max Insert Loss , 23°C (dB)	4	4
Insert Loss Ripple (dB)	2	2
Return Loss (dB)	≥50 (APC) ≥40(PC)	≥30(PC)
Max Power (dBm)	23	
Weight (g)	620g (Excluding tail cables and connectors)	
Max Rotating Speed (rpm)	300	
Working Life	>100 million rpm	
Working Temperature (℃)	-20~60℃ (Civil use) -40~85℃ (military)	
Storage Temperature (℃)	-50~85℃	
protection grade	IP65	
Fiber length	1m	

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