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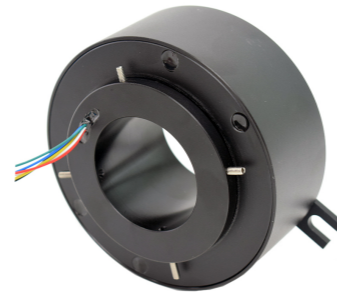
ER Through bore slip ring (ER Series)

ER Through bore slip ring (ER Series) SLIP

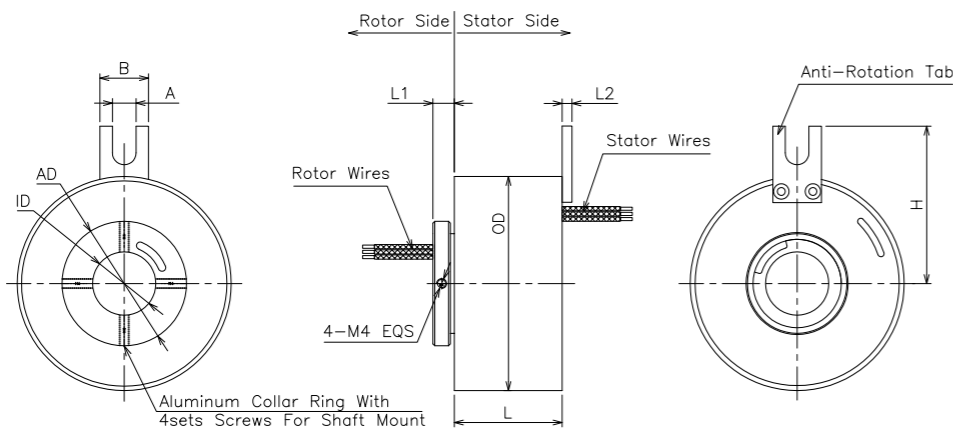
Through hole slip rings are also known as hollow shaft slip rings. Our hollow shaft slip ring hole sizes, range from 3mm to 5000mm. Standard through hole sizes are 12.7mm, 25.4mm, 38.1mm, 50mm, 60mm, 70mm, 80mm, and 100mm, which can be known as ER012, ER025, ER038, ER050, etc. with options to customise the through hole sizes. Various signals such as Ethernet, USB, HDMI, SDI, CANbus, Profibus and power, can be integrated into one slip ring to fulfill multi-function system demands. We have accumulated an abundance of experience on design solutions for anti-vibration, anti-shock, corrosion proof, waterproof and crosstalk prevention. Flexible structure designs on integrated slip rings attract more and more markets, not only civil industries, but also defense industries.

Advantage

- Through hole size: 3mm~5000mm
- Circuit number: up to 300
- Protection grade: up to IP68
- Rotation speed: 1100rpm
- Current: up to 2000Amp
- Signal type to be integrated: Ethernet, USB, HDMI, SDI, Canbus, Profibus, Audio



Size



Technical parameter

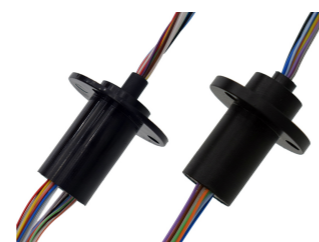
Electrical Specification		Mechanical features		Other	
Circuits number	2-24 circuits	Working speed	0-300rpm	Working temperature	-20+60°C
Current	5A (Signal) /10A/15A/Higher	Contact material	Precious metal	Working Humidity	10%~85%RH
Rate voltage	240VAC/DC	Housing material	Aluminum alloy	Protect grade	IP51
Dielectric strength	500VDC@50Hz,10s	Rotary torque	0.1N.m,+0.03N/m/6 CKT	Working life	> 20 Million Rotation(base on working speed and Ambient)
Insulation resistance	≥500MΩ@500VDC,60s	Lead wire size	Teflon	CE certified	YES
Electrical noise	<10mΩ@6VDC,50mA,5RPM	Lead wire length	Both end 300mm	Material	RoHS certified

Model list

Model	ID (mm)	OD (mm)	Rated Voltage (VAC/DC)	Rated Current (A)	Length(L)				Rotation speed (RPM)	OD of Aluminum Ring AD (mm)	Rotor Length L1 (mm)	Width of anti-rotation tab B (mm)	Slot width of anti-rotation tab A(mm)	Height of U tab H(mm)	Thickness of anti-rotation tab L2(mm)
					6 CKT	12 CKT	18 CKT	24 CKT							
ER012S	Φ12.7	Φ34.9	380	2A	23.6	/	/	/	300	24	6	8	3	21	2
ER012T	Φ12.7	Φ34.9	380	2A	23.6	/	/	/	300	/	/	/	/	/	/
ER012S-U	Φ12.7	Φ35	380	2A	/	34.4	/	/	300	/	/	/	/	/	/
ER012	Φ12.7	Φ56	380	5A	34	47.8	61.6	75.4	300	30	5.8	12	6	37	2
				10A	37	53.8	70.6	87.4							
ER025	Φ25.4	Φ86	380	5A	43.3	62.5	81.7	75.4	300	50	8.6	19.5	9.5	63.2	4
				10A	47.5	70.9	94.3	117.7							
ER038	Φ38.1	Φ99	380	5A	43.6	63.6	83.2	103.2	300	60	8.7	19.5	9.5	67.2	4
				10A	48	72	96	120							
ER050	Φ50	Φ119	380	5A	50	69.8	89.6	109.4	300	75	8.5	19.5	9.5	78.2	4
				10A	54.2	78.2	102.2	126.2							
ER060	Φ60	Φ135	380	5A	52.5	70.5	88.5	106.5	300	95	8.7	19.5	9.5	84.95	4
				10A	56.7	78.9	101.1	123.3							
ER070	Φ70	Φ135	380	5A	52.5	70.5	88.5	106.5	300	95	8.7	19.5	9.5	84.95	4
				10A	56.7	78.9	101.1	123.3							
ER080	Φ80	Φ160	380	5A	62	86	110	134	300	120	13	19.5	9.5	97.15	4
				10A	65	92	119	146							
ER100	Φ100	Φ185	380	5A	69	96	123	150	300	140	14	35	15	118	5
				10A	69	96	123	150							
ER120	Φ120	Φ207	380	5A	81	108	135	162	300	165	14	35	15	133	5
				10A	81	108	135	162							
ER150	Φ150	Φ250	380	5A	98	131	164	197	300	182	14	35	15	142	5
				10A	98	131	164	197							
ER150	Φ150	Φ250	380	10A	101	137	173	209	300	182	14	35	15	142	5
				15A	101	137	173	209							

Capsule slip ring (AR/BR/CR Series)

Our capsule slip rings include the AR, BR, and CR series. They have flexible specifications to fulfill the various and complex requirements of our customer's systems. Circuit numbers range from 2 circuits up to 100 circuits. Power and signal can be easily to be integrated into one slip ring. Signal types include Ethernet, CANbus, Profibus, RS, HDMI, HD-SDI, USB and so on. Typical outer diameters are 5.5mm, 12.4mm, 22mm, but can also be customised.



Feature

- Compact sizes, 5.5mm~35.5mm are available
- Adopt military grade surface treatment, gold to gold contact
- Low contact resistance, low electrical noise, low torque and smooth rotation
- Transmit data and analog signal, compatible with bus protocol

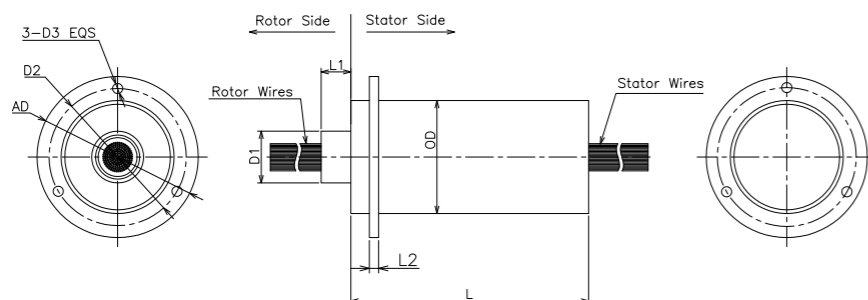
Option

- Circuit number: 1~200
- Protection grade: IP51~IP68
- Operation temperature: up to 100°C
- Support various signal/power mixed transmit
- Lead wire length/Cable exit way/Termination

Typical application

- Surveillance/LED
- Radar antenna/Military equipment
- UAV/Robot/Mechanical arm
- Medical equipment/Instrument

Size



Technical parameter

	Series	AR	BR	CR
Electrical Feature	Current	2A/or higher	2A/or higher	1A
	Circuit No.	1~76 circuits or more	1~24	1~12
	Rating Voltage	240VAC/DC		
	Dielectric Strength	500VDC@50Hz,10s		200VDC@50Hz,60s
	Insulation Resistance	100MΩ@500VDC,60s		10MΩ@100VDC
	Electric Noise	<5mΩ@6VDC,50mA,300RPM		
Mechanical Feature	External diameter	22~35.5mm	12.4~16mm	5.5mm/10mm
	Working speed	0-300rpm or higher		
	Contact material	Gold to Gold		
	Housing material	Engineering plastic or metal (optional)		
	Working Torque	≤0.88g.m		
	Lead wire size	AWG28# Teflon	AWG28# Teflon	AWG30# Teflon
	Lead wire length	250mm		
Other	Working temperature	-20°C~60°C		
	Working humidity	≤60%RH		
	Protection grade	IP51		
	Material	RoHS Certification		
	CE Certification	Yes		

Capsule slip ring (AR/BR/CR Series)

Model list

Model	CKT No.	ODx L (mm)	Rated Voltage (VAC/DC)	Rated Current (Amp)	Rotor OD D1(mm)	Flange OD AD(mm)	Flange Mounting Hole Position D2(mm)	Flange Mounting Hole ID D3(mm)	Rotor Exposed Length L1(mm)	Flange thickness L2(mm)
AR22A-03P1	3	Φ22x28	240	5A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-03P2	3	Φ22x41.2	240	10A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-03P3	3	Φ22x56.8	240	15A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-06	6	Φ22x19	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-08	8	Φ22x28	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-12	12	Φ22x28	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-18	18	Φ22x33.4	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-24	24	Φ22x41.2	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR22A-30	30	Φ22x49.5	240	2A	Φ7.6	Φ44	Φ35	Φ5.5	9	2.4
AR22A-36	36	Φ22x56.8	240	2A	Φ7.8	Φ44	Φ35	Φ5.5	9	2.4
AR25-46	46	Φ25x72.5	240	2A	Φ9.8	Φ45	Φ35	Φ5	9	2.5
AR25-56	56	Φ25x85.5	240	2A	Φ9.8	Φ45	Φ35	Φ5	9	2.5
AR35-76	76	Φ35.5x105.7	240	2A	Φ15	Φ55	Φ46	Φ5.4	12.4	2.5
BR12-04	4	Φ12.4x14	240	2A	Φ4	Φ24	Φ18	Φ2.5	2.8	1.25
BR12-06	6	Φ12.4x14	240	2A	Φ4	Φ24	Φ18	Φ2.5	2.8	1.25
BR12-08	8	Φ12.4x19.5	240	2A	Φ5	Φ24	Φ18	Φ2.5	2.8	1.25
BR12-12	12	Φ12.4x19.5	240	2A	Φ5	Φ24	Φ18	Φ2.5	2.8	1.25
BR12U-06	6	Φ12.4x14	240	2A	Φ4	/	/	/	2.8	/
BR12U-12	12	Φ12.4x19.5	240	2A	Φ4	/	/	/	2.8	/
BR12U-18	18	Φ12.4x23	240	2A	Φ4	/	/	/	2.8	/
BR15-18	18	Φ15.5x34	240	2A	Φ5.8	Φ32	Φ25	Φ2.8	6	2
BR15-24	24	Φ15.5x34	240	2A	Φ5.8	Φ32	Φ25	Φ2.8	6	2
BR16J-30	30	Φ16x37	240	1A	Φ7	Φ32	Φ25	Φ2.8	7	2.2
CR-05D	5	Φ5.5x9.6	48	1A	Φ2	/	/	/	1	/
CR-07A	6	Φ7.9x11.2	48	1A	Φ3	/	/	/	3	/
CR-10J	10	Φ10x13.6	48	1A	Φ6.3	/	/	/	5	/
AR0622T-06	6	Φ24.8x32.5 ID:Φ6.4	240	2A	Φ11.8	44.5	34.9	Φ5	7.2	2.4
AR0622T-12	12	Φ24.8x39.8 ID:Φ6.4	240	2A	Φ11.8	44.5	34.9	Φ5	7.2	2.4
AR0624T-24	24	Φ24.8x54.8 ID:Φ6.4	240	2A	Φ11.8	44.5	34.9	Φ5	7.2	2.4
AR0624T-30	30	Φ24.8x62.3 ID:Φ6	240	2A	Φ11.8	44.5	34.9	Φ5	7.2	2.4

Carbon brush slip ring (BHR Series)

Carbon brush slip ring (BHR Series)

The contact materials on the brush slip rings are carbon brushes. Normally they are used on high current channels like 100Amp, 200Amp, or higher. They can also be known as a large current collectors or high power slip rings. Their advantage is easy maintenance, but their downfall is the large size and weight. Typical applications include drilling platforms, ship machinery, automatic machines, port machinery, offshore cranes, cable reels and propellers.



Option

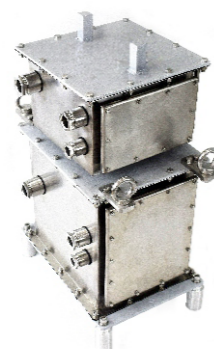
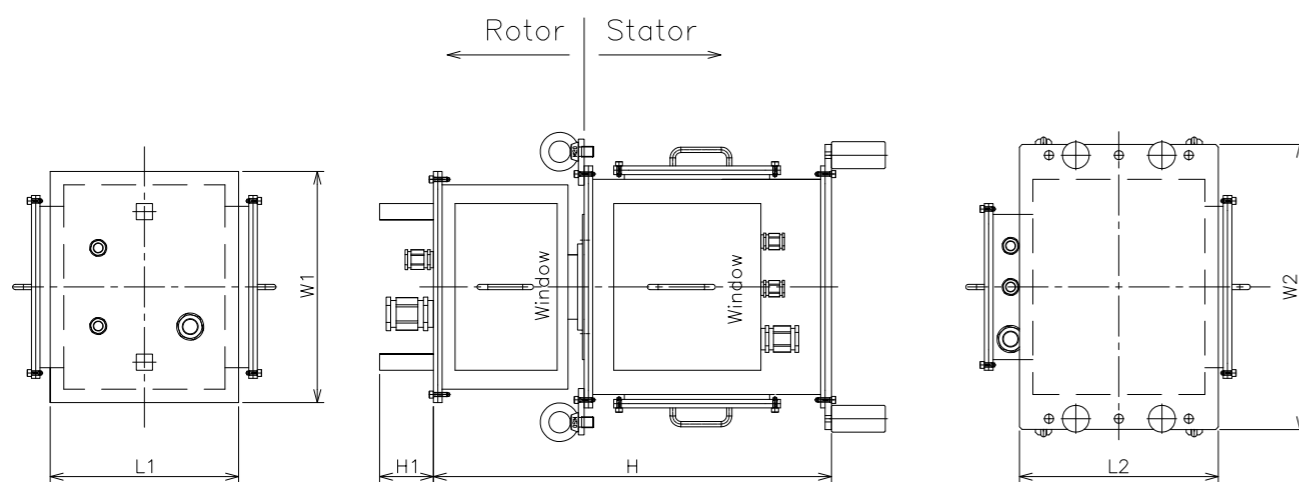
Current: 1-2000A

Voltage: 24-20000V

Capable of integrating special signal such as RS, USB, Ethernet, etc.

Flexible to combine encoders, fiber rotary joints, RF rotary joints, pneumatic & hydraulic rotary unions, etc.

Size



Technical parameter

		Power Ring	Signal Ring
Electrical Features	Current	500A(Optional)	5-20A(Optional)
	Circuit No.	1~36 circuits or more	1~76 circuits or more
	Rating Voltage	440VAC/220VAC	380VAC/DC
	Dielectric Strength	≥2500VAC@50Hz	
	Insulation Resistance	≥1000MΩ@1000VDC	
	Electrical Noise	<1mΩ	<10mΩ
Mechanical Features	Working speed	0-10rpm or Higher	
	Contact Material	Copper graphite	Precious Metal
	Housing Material	Common Iron / Stainless steel(Optional)	/
Other	Working temperature	-20°C~80°C(Optional)	
	Working humidity	60%RH(Optional)	
	Protection grade	IP54(Optional)	
	Maintenance mode	Scheduled maintenance	Maintenance-free
	Material	RoHS Certification	
	CE Certification	Yes	

Model list

Model	LxWxH or ODxDxL (mm)	Power ring (Copper graphite)		Signal ring	Rotation speed (RPM)	Shell material
		CTK No. x Current	Voltage (VAC/DC)	CKT No. x Current/signal		
BHR-C-0463-1420	434x304x580	4x63A	0-690	14x20A	0-5	SUS
BHR-C-26P-47P3-48S	560x560x1907	6x150A,1x150A(PE),15x100A,3x50A,1x50A(PE)	0-400	47x16A,48xsignal	0-6	Q235A
BHR-C-04P-32S-04EG	Φ350x423	4x150A	0-380	32xSignal,4xEthernet	0-50	AL Alloy + SUS
BHR-C-260-02P2	Φ390x260x102	2x10A	0-1000	/	0-10	AL Alloy + SUS
ER000-07P-17S	Φ135x354.9	3x200A	0-380	4x30A,17xSignal	0-250	AL Alloy
BHR-10P-20PS-02P2-09S	620x620x1165	3x550A,3x80A,3x50A	0-690	20x15A,2x10A,9xSignal	0-1	SUS
BHR-096-12P	Φ330x96x448	12x100A	0-380	/	0-30	AL Alloy
BHR-C-04P	Φ400x296	4x500A	0-380	/	0-60	AL Alloy + SUS
BHR-C-06P-36S	Φ704x820	6x600A	0-600	36xSignal	0-20	CS + Spray paint
ER000-07P-17S	Φ135x354.9	3x200A	0-380	4x30A,17xSignal	0-250	AL Alloy
BHR-C-07P-37S	502x420x928	3x600A,1xPE,3x60A	0-500	37xSignal	0-15	Q235A
BHR-C-11P-57S	550x450x1250	6x800A,3x100A,2xPE	0-500	57xSignal,1xencoder signal	0-15	Q235A
BHR-C-260-04P	390x260x150	4 x7.5A	0-1000	/	0-10	SUS
BHR-C-260-08P	390x260x150	8x10A	0-1000	/	0-8	SUS
BHR-C-350-06P	Φ904x350x674	6x200A	0-380	/	0-5	CS + Spray paint
BHR-C-0663-0610	429x370x759	6x63A	0-440	6x10A	0-5	SUS

Pneumatic/Hydraulic rotary union (QR Series)



The pneumatic/hydraulic rotary joint is used specifically for transmitting gas and liquid, including compressed air, hydrogen, nitrogen, water, oil, coolant and so on. Rotary joints adopt different sealing methods according to the type of media, including gap sealing, mechanical sealing, and sealing of sealing parts. Each type of sealing method has its own advantages and disadvantages. The connector size, installation size, and number of channels, can be customised according to the exact application. This slip ring has a long lifespan, and stable performance.

Feature

- Different sealing types
- Good performance, long lifespan
- Rotating speeds up to 800rpm without maintenance
- Customisable size and installation

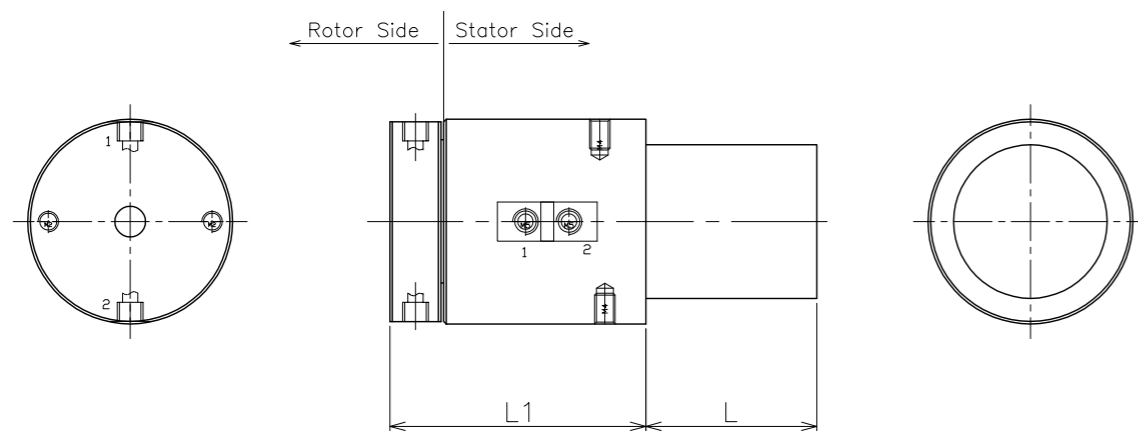
Application

- Automatic equipment
- chemical pharmacy machinery manufacturing
- food processing
- iron and steel metallurgy
- plastic fiber manufacturing

Option

- Circuit channels
- Pressure sizes, connector specification
- Size
- Installation
- Transfer medium type

Size



Technical parameter

Channel No.	1-20 channel(Optional)	Maximum Pressure	Barotropic:1MPa, Vacuum:-100kPa
External diameter of air tube	Φ4/Φ6/Φ8/Φ10/Φ12	Torque	<0.2N.m
Integrated electric slip ring Specification			
Electrical Features		Mechanical Features and Other	
Circuit No.	1~24	Working speed	0-100rpm
Current	2 A or Higher	Contact material	Precious metal
Rating Voltage	240VAC/DC	Housing material	Aluminum Alloy
Dielectric Strength	≥500VAC@50Hz	Operating temperature	-20°C~+60°C
Insulation resistance	100MΩ@500VDC	Operating Humidity	≤60%RH
Dynamic resistance fluctuation value	35mΩ(Min 1mΩ)	Protection Grade	IP51(Optional)

Pneumatic/Hydraulic rotary union (QR Series)

Model list

Model	Channel No. of Air /Fluid	Pressure	Connection size	Adaptable tube (mm)	No. of power channel (10A)	No. of power channel (5A)	Length of Air/ Fluid rotary union (mm)	Length of electrical slip ring(L1) (mm)
QR0201	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	0	72	0
QR0201-06P1	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	6	72	44.8
QR0201-12P1	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	12	72	58.6
QR0201-18P1	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	18	72	72.4
QR0201-24P1	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	24	72	86.2
QR0201-06P2	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	6	0	72	47.8
QR0201-12P2	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	12	0	72	64.6
QR0201-18P2	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	18	0	72	81.4
QR0201-24P2	2 in 2 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	24	0	72	98.2
QR0401	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	0	90	0
QR0401-06P1	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	6	90	44.8
QR0401-12P1	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	12	90	58.6
QR0401-18P1	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	18	90	72.4
QR0401-24P1	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	24	90	86.2
QR0401-06P2	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	6	0	90	47.8
QR0401-12P2	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	12	0	90	64.6
QR0401-18P2	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	18	0	90	81.4
QR0401-24P2	4 in 4 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	24	0	90	98.2
QR0601	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	0	102	0
QR0601-06P1	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	6	102	44.8
QR0601-12P1	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	12	102	58.6
QR0601-18P1	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	18	102	72.4
QR0601-24P1	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	24	102	86.2
QR0601-06P2	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	6	0	102	47.8
QR0601-12P2	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	12	0	102	64.6
QR0601-18P2	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	18	0	102	81.4
QR0601-24P2	6 in 6 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	24	0	102	98.2
QR0801	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	0	120	0
QR0801-06P1	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	6	120	44.8
QR0801-12P1	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	12	120	58.6
QR0801-18P1	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	18	120	72.4
QR0801-24P1	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	0	24	120	86.2
QR0801-06P2	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	6	0	120	47.8
QR0801-12P2	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	12	0	120	64.6
QR0801-18P2	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	18	0	120	81.4
QR0801-24P2	8 in 8 out	-100KPa~+0.6MPa	G1/8"	Φ6,Φ8	24	0	120	98.2

Pancake slip ring (PR/PSR Series)

Pancake slip ring (PR/PSR Series)



Pancake slip rings are another form of through hole slip rings. Our pancake slip rings are designed for equipment where vertical space is limited, but horizontal space is not so much. This type of slip ring provides ultra thin thickness, for special installation space, the thickness can be as low as 6mm. This kind of pancake slip ring can be designed either with or without a through hole.

Special high vacuum sealing technology and precious metal brushes, ensure high reliability when rotating and transmitting signals. With many advantages such as low torque, low friction, low electrical noise and long life, pancake slip rings are mainly designed to transmit very precise signals together with power.

Advantage

Through hole size: 0~600mm

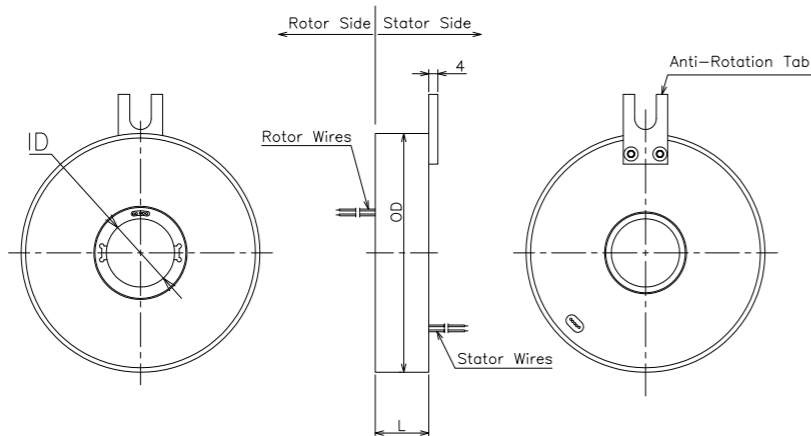
Thickness: 6mm~51mm

Rotation speed: 0~500rpm

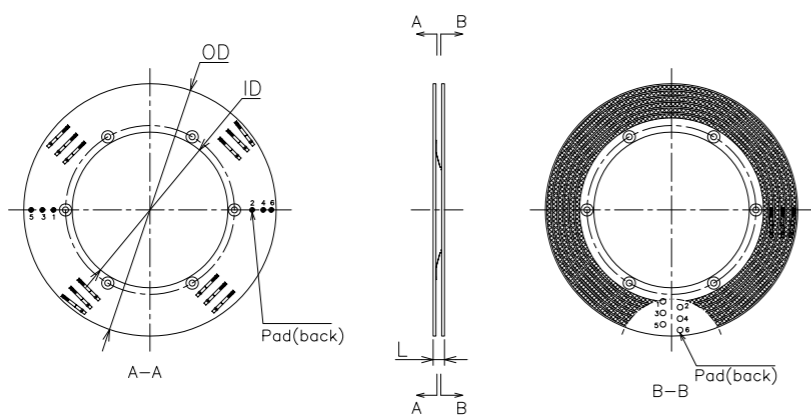
Lifespan: up to 10million revolutions

Signal integrated: RS,Audio,Video,USB,Ethernet

PR Size



PSR Size

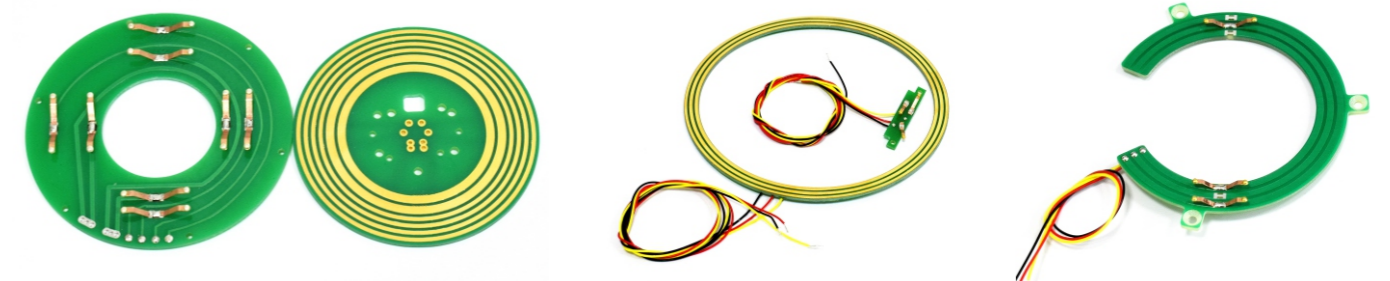


Technical parameter

Mechanical Features		Electrical Features		Other	
Inner diameter	0-500mm (Optional)	Circuits	1-30	Protection Grade	PR:IP51
Thickness	6mm(Min)	Current	2A/5A/10A/20A/Signal		PSR:IP00
Operating speed	0~100RPM	Rating Voltage	380VAC/DC	Operating Humidity	60%RH
Torque	0.1N/m(reference)	Dielectric Strength	≥500V@50Hz	Working temperature	-20°C~+60°C
Lead wire size	Tin coated Teflon	Insulation Resistance	≥500MΩ@500VDC		
Lead wire length	Both end 300mm or longer	Electrical Noise	<70mΩ(50rpm)	PCB	FR4

Model list

Model	ID (mm)	OD (mm)	L (mm)	CKT No. x Current/Signal	Rated voltage (VAC/DC)	Rotation speed (rpm)
PSR025-02P2-02S	/	Φ72	6	2x10A,2xSignal	0-380	0-10
PSR020-02P	Φ20	Φ43	6	2x3A	0-24	0-3
PSR028-02P1-01EM	Φ28	Φ65.5	6	2x5A,1xEthernet	0-220	0-50
PSR030-06P	Φ30	Φ89	6	6 x2A	0-220	0-30
PR030-05S	Φ30	Φ105	23.5	5 xSignal	0-12	0-60
PR031-10P	Φ31	Φ120	25	10x2A	0-380	0-100
PSR046-02P1	Φ46	Φ82	6	2x5A	0-380	0-100
PSR055-03S	Φ55	Φ74	6	3 x1A	0-5	0-100
PSR064-02P-02S	Φ64.5	Φ89	6	2 x0.1A, 2xSignal	0~24	0-50
PSR082-06P1	Φ82	Φ133	6	6x5A	0-24	0-200
PSR090-02P-02S	Φ90	Φ129	7	2x2A,2xCANBUS	0~12	0-10
PSR100-03S	Φ100	Φ113.5	6	3 x1A	0~24	0-300
PSR140-02P-02S	Φ140	Φ173	6	2 x2A,2xCANBUS	0~12	0-10



Fiber optic rotary joint (FR Series)

Fiber optic rotary joint (FR Series)

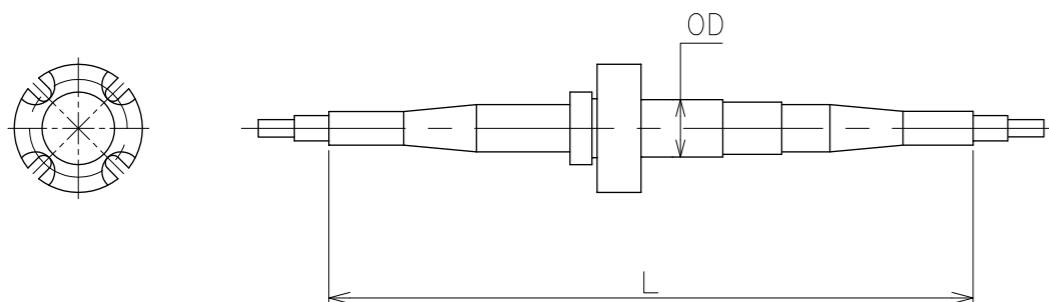


The main advantage of the fibre optic rotary joints, is the non-contact technique which ensures it has a long life span and easily rotates at high speeds. It can have anywhere between 1 to 50 channels with multi-modes and single modes. Connector types are varied. Low insertion losses assure reliable performance.

Feature

- Data rate up to 100Gbit/s
- Channel number up to 50
- No EMI
- Life span up to 108 revolutions

Size



Technical parameter

Optical Property		Mechanical Feature and Other	
Circuits	1-50 Circuits (Optional)	Working speed	2000rpm or Higher
Wavelength	650-1650nm(Special wavelength is optional)	Tensile force	10N
Insertion Loss	Single channel <2dB	Working temperature	Working temperature:-40~+85°C
	Multi channel <5dB		Storage temperature:-50~+85°C
Insertion loss wow	Single channel <0.5dB	Encapsulation mode	Pigtail / Connector
	Multi channel <2dB		
Return loss	<40dB	Connect type	ST/FC/SC/LC etc.
Crosstalk	<45dB	Jacket types	0.9/2/3mm(TPU or Shield)
Maximum optical power	23dB (Optional)	Protection Grade	Maximum IP68

Model list

Model	Channel No.	Fiber type	Wave length (nm)	Insertion loss (dB)	Insertion loss fluctuation (dB)	Return loss (dB)	Working temperature (°C)	Max rotation speed (rpm)	Connector	ODxL (mm)
FR01G-6	1	9/125(SM) 50/125(MM) 62.5/125(MM)	1310/1550 850/1310	≤1.5	≤0.7 (or±0.35)	≥30	-20~+60	2000	FC/ST/SC/LC	Φ6.8x24.7
FR01G-10H	1	9/125(SM) 50/125(MM) 62.5/125(MM)	1310/1550 850/1310	≤1.5	≤0.7 (or±0.35)	≥30	-20~+60	2000	FC/ST/SC/LC	Φ10x31.8
FR01G-19	1	9/125(SM) 50/125(MM) 62.5/125(MM)	1310/1550 850/1310	≤1.5	≤0.7 (or±0.35)	≥30	-20~+60	2000	FC/ST/SC/LC	Φ19x88.1
FR0204G-67R	2~4	9/125(SM) 50/125(MM) 62.5/125(MM) Or mixed	1310/1550 850/1310	≤4.0	≤2.0	≥40	-20~+60	400	FC/ST/SC	Φ67x189
FR0207G-20	2~7	9/125(SM) 50/125(MM) 62.5/125(MM) Or mixed	1310/1550 850/1310	≤3.5	≤1.5	≥45	-20~+60	300	FC/ST/SC/LC	Φ20x119
FR0231G-38	2~31	9/125(SM) 50/125(MM) 62.5/125(MM) Or mixed	1310/1550 850/1310	≤4.0	≤2.0	≥40	-20~+60	400	FC/ST/SC/LC	Φ38x119.5
FR0231G-67A	2~31	9/125(SM) 50/125(MM) 62.5/125(MM) Or mixed	1310/1550 850/1310	≤4.0	≤2.0	≥40	-20~+60	400	FC/ST/SC/LC	Φ67x123

Radio frequency rotary joint (RR series)

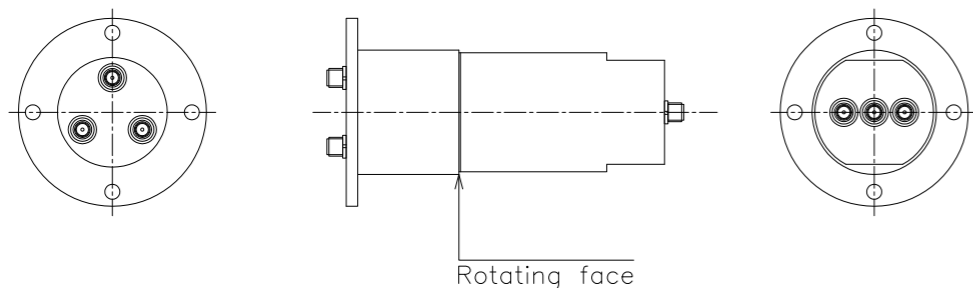
The RF rotary joint belongs to the RR series. The RF rotary joint design, adopts the principle of the skin effect, of the high frequency signal and the structure of the coaxial cable. To ensure the RF rotary joints have low damage and reliable transmission, they have high elastic wear-resisant material in the internal key contact points, and special plating on the surface. There is also a connector device to transmit high frequency signals from the static to the rotating part.

Features

Up to 50 GHz transmission frequency, channel number is as high as 5 channels

To support the high frequency signal and the low voltage DC signal transmission at the same time. Low & middle frequency range from 0~3 GHz, which could be realized via coax cable. If frequency is higher than 3GHz, then it is designed by rotary joint directly.

Size



Technical parameter

Electrical Features		Mechanical Features and Other	
Channel No.	1/2/3/4/5 channel (optional)	Working speed	0~500rpm
Frequency	The highest in Single channel 50GHz	Working temperature	Working temperature:-45~+80°C
	The highest in binary channels 18GHz		Storage temperature:-55~+85°C
Connector type	SMA/N/3.5/2.92/2.4/F etc.	Working life	Max 10million rotation
Characteristic impedance	50Ω/75Ω	Torque	Min 1N.cm
Voltage standing wave ratio	Min 1.2	Contact material	Precious metal
Insertion loss	Min 0.25dB	Housing material	AL Alloy / Stainless steel / Brass
Isolation	50dB(Min)	Operating Humidity	≤95%(No frozen)



Radio frequency rotary joint (RR series)

Model list

Model	Channel No.	Frequency range	Peak power Max.	Average power	VSWR	Insertion loss Max.	Isolation min.	Connector interface
RR0103A	1	DC-3GHz	1KW	20W	1.5	0.4dB(w/o wire) 1.4dB@250/250mm	/	SMA/MCX/ SMB
RR0106A	1	DC-6GHz	800W	10W	1.5	1.8dB@250/250mm	/	SMA/MCX/ SMB
RR0118A	1	DC-18GHz	1.5KW	200 W @ 1 GHz 30 W @ 18 GHz	1.20 @ 0 to 6 GHz 1.25 @ 6 to 12 GHz 1.35 @ 12 to 18 GHz	0.25 dB @ 0 to 6 GHz 0.35 dB @ 6 to 12 GHz 0.50 dB @ 12 to 18 GHz	/	SMA-f(50Ω)
RR0118B	1	DC-18GHz	5KW	200W @ 1GHz	1.5	0.30dB	/	SMA-f(50Ω)
RR0118D	1	DC-18GHz	10KW	200W@DC-4.5GHz / 50W@4.5-15GHz / 30W@15-18GHz	1.3	0.4dB	/	N-f(50Ω)
RR0140C	1	DC-40GHz	500W @ 1GHz	5W @ DC-10GHz 2W @ 10-18GHz 1W @ 18-40GHz	1.4 @ DC to 18GHz 1.7 @ 18 to 26.5GHz 2.0 @ 26.5-40GHz	0.5dB @ DC to 18GHz 1.0dB @ 18 to 26.5GHz 1.2dB @ 26.5-40GHz	/	2.92mm -f(50Ω)
RR0150B	1	DC-50GHz	1KW	50W@1GHz/ 15W@10GHz/ 5W @26.5GHz/ 3W@50GHz	1.3 @DC-10GHz/1.7 @26.5-50GHz/1.4 @10-26.5GHz	0.3dB@DC-10GHz / 0.5dB@10-26.5GHz 0.9dB@26.5-50GHz	/	2.4mm -f(50Ω)
RR0204B	2	DC-4.5GHz	1KW	CH1: 100W@DC-2GHz/ 60W@2GHz-4.5GHz CH2:10W	CH1: 1.2 CH2~5: 1.5	CH1: 0.25dB CH2: 0.5dB	50dB	SMA-f(50Ω)
RR02-40-18A	2	CH1:DC-40GHz CH2:DC-18GHz	2KW	CH1: 10W@1GHz CH2: 50W@1GHz	CH1: 1.35@DC-8GHz 1.5@8-18GHz 2.0@18-32GHz 2.5@32-40 G CH2: 2@DC-4GHz 3@4-8GHz 3.5@8-12GHz 4.5@12-18GHz	CH1: 0.4dB@DC-8GHz/ 1.0dB@8-18GHz 1.5dB@18-32GHz/ 2dB@32-40GHz CH2: 0.75@DC-4GHz 1.5@4-8GHz 2.5@8-12GHz 3.0@12-18GHz	50dB	2.92mm- f(50Ω)
RR03-0812A	3	8-12GHz	100W	10W @1GHz	2	2dB	50dB	SMA(50Ω)
RR0301A	3	1.01-1.1GHz	10KW	CH1:150W CH2:150W CH3:300W	0.05	0.5dB	60dB	N-f(50Ω)
RR0301B	3	CH1:1.2-1.4GHz CH2:1.01-1.1GHz CH3:1.01-1.1GHz	10KW	CH1:300W CH2:150W CH3:150W	1.05	0.5dB	60dB	N-f
RR05-0101-0402A	5	CH1: 0.63-0.66GHz CH2~CH5: DC-2.5GHz	CH1: 20KW CH2~5: 1KW	CH1:2KW CH2:150W CH3:150W CH4:20W CH5:20W	CH1: 1.25 CH2~5: 1.5	CH1: 0.3dB CH2~CH5: 0.8dB	60dB	CH1: L29-F(50Ω) CH2~CH5: SMA-F(50Ω)



The Ethernet technology is the most popular type in our slip rings, it provides 1 Gbps bandwidth of communication for Internet and communication systems, and has reliable transmission.

The Ethernet slip ring complies with EMC compatibility, and meets the requirements of signal impedance matching, to make sure there is low transmission loss, no error code, and long distance transmission. Ethernet slip ring transmission data rates, are up to 1000Mb. They can also have integrated power, and different signal types, in one slip ring.

Feature

Transmit 100M/1000M Ethernet signal.

Transmit stably, no package loss, no crosstalk, low loss.

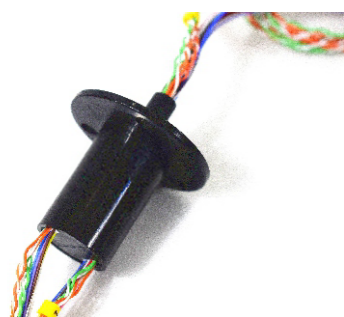
Integrate multi-signal and current.

No interference between power and signal, comply with EMC compatibility.

RJ45 connector is available.

Technical parameter

Electrical Specification		Mechanical features		Other	
Circuit No. of power & signal	0-100circuits	Working speed	0-300rpm	Working temperature	-20°C+60°C
Channel No. of Ethernet	Gigabit: 1-8 100M: 1-12	Contact material	Precious metal	Working Humidity	10%~85%RH
Rate voltage	240VAC/DC	Housing material	Engineer plastic / Alu alloy	Protect grade	IP51
Dielectric strength	500VDC@50Hz, 10s	Rotary torque	0.1N/m, +0.03N/m/6 circuits	Working life	>20 Million Rotation(base on working speed and Ambient)
Insulation resistance	≥500MΩ@500VDC, 60s	Lead wire size	Teflon	CE certified	YES
Electrical noise	<10mΩ@6VDC, 50mA, 5RPM	Lead wire length	Both ends 300mm	Material	ROHS certified



Model list

Model	ID (mm)	OD (mm)	CKT No. xCurrent/Signal		CKT No. of Ethernet		Rotation speed (rpm)	Length (L) (mm)
			Signal/1A	Power (2-30A)	100Mbps	1Gbps		
AR22A-12-01EM	0	Φ22	/	/	1	/	0-250	36
AR-04P1-02EG	0	Φ22	/	4x5A	/	2	0-100	57.3
AR-02P3-08S-02EG	0	Φ25	8xSignal	2x18A	/	2	0-300	85.7
AR-56A-0218-08S-2E2	0	Φ25	8xSignal	2x18A	2	/	0-300	85.7
AR-32S-01EG-01UB-01HD-01R	0	Φ45	1xUSB, 1xHD-SDI	32x2A	/	1	0-50	79.6
ER000-05P1-01EG	0	Φ35	/	5x5A	/	1	0-1000	90
ER000-26P2-02P-08S-01EM	0	Φ47	2xRS485, 2xcan	26x10A, 2x4A	1	/	0-200	117.4
ER000-02P1-03S-01EG	0	Φ56	3xRS232	2x5A	/	1	0-300	52.4
ER000-02EG	0	Φ56	/	/	/	2	0-300	67
ER000-06P-06S-01EG	0	Φ56	6xSignal	4x10A, 2x5A, 1xPE	/	1	0-300	78.3
ER000-10P-09S-01EG	0	Φ56	9xSignal	8x10A, 2x5A	/	1	0-300	96.4
ER000-02P-04P2-09S-02EM	0	Φ56	9xSignal	2x20A, 4x10A, 1xPE	2	/	0-12	102
ER000-09P-EM-23S	0	Φ56	23xSignal, 3x1A	4x10A, 3x5A, 3x2A	1	/	0-300	104
ER000-02P3-07S-01EM	0	Φ65	2xSignal	2x15A, 5x422	1	/	0-300	65.3
ER000-04P3-10S-01EM	0	Φ70	/	4x15A, 10x2A	1	/	0-300	63.5
ER000-02P-09S-03EG	0	Φ86	9xSignal	2x20A	/	3	0-300	150.7
ER000-04P2-04P1-08S-01EG	0	Φ90	9xRS422	4x10A, 4x5A	/	1	0-250	79.5
ER000-04P2-13S-01EG	0	Φ99	/	4x10A, 13x2A	/	1	0-100	51
ER025-28P1-08S-03EM	Φ25.4	Φ74	2xRS485	28x5A	3	/	0-300	157.8
ER025-02P-02P1-01EG	Φ25.4	Φ86	/	2x25A, 2x5A, 1xPE	/	1	0-300	79.6
ER025-06P2-06S-01EG	Φ25.4	Φ86	6xSignal	6x10A	/	1	0-300	99.9
ER025-04P-15S-02EG	Φ25.4	Φ86	15xSignal	4x5A	/	2	0-300	105.8
ER025-15P2-02EG	Φ25.4	Φ86	/	15x10A	/	2	0-300	140.2
ER025-20S-02EG	Φ25.4	Φ86	20xSignal	/	/	2	0-300	156.4
ER025-25S-02EG	Φ25.4	Φ86	25xSignal	/	/	2	0-300	166
ER025-1815-08S-02E2	Φ25.4	Φ86	8xSignal	18x15A	2	/	0-300	178.7
ER025-1815-02EG	Φ25.4	Φ86	/	18x15A	/	2	0-300	178.7
ER025-03P2-01EM-01EG	Φ25.4	Φ99	/	3x10A	1	1	0-100	97.4
ER025-06P1-06P2-02EG	Φ25.4	Φ99	/	6x10A, 6x5A	/	2	0-300	131.1
ER025-25P2-04EG	Φ25.4	Φ99	/	25x10A, 1xPE	/	4	0-300	248.2
ER038-05P-08S-01EM	Φ38.1	Φ99	4xRS Signal	3x15A, 2x10A,	1	/	0-300	79.1
ER038-04P3-04P2-02EG	Φ38.1	Φ119	/	4x15A, 4x10A, 1xPE	/	2	0-300	146.5
ER038-04P2-01EG	Φ38.1	Φ135	/	4x10A	/	1	0-300	83.5
ER038-04P2-03EM	Φ38.1	Φ135	/	4x10A, 1xPE	3	/	0-300	111
ER100-02P1-12S-02EG	Φ100	Φ185	3xRS485	2x5A	/	2	0-300	257



USB slip rings are rotary joints that transmit USB signals, during 360 degree rotation. They transmit IEEE1394 and various other USB signals. They can be used with any device which needs to transmit power and USB signals during 360 degree rotation. USB slip rings solve the problem of large capacity data signal transmission, between rotating components in a system.

Feature

- Transmit USB1.0,USB2.0,USB3.0
- Stable transmission,no package loss,no cross talk,low loss
- Combine various signal and power
- No interference between power and signal circuit,comply with EMC
- Equip amplifying module ,like HUB to increase transmission distance
- USB female and male connector are available

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current		CKT No. of USB		Rotation speed (rpm)	Length (L) (mm)
			Signal/1A	Power (2-30A)	USB2.0	USB3.0		
AR12-01U3	0	12.8	/	/	0	1	0~300	23.5
AR-02P-01UB	0	22	/	2x2A	1	0	0~10	26.4
AR22-01UB	0	22	/	/	1	0	0~300	42.5
AR22-03P-02S-01U3	0	22	2xPWM	3x2A	0	1	0~300	42.5
AR-32S-01EG-01UB-01HD-01R	0	45	1xHD-SDI, 1x Gigabit Ethernet	32x2A	1	0	0~50	79.6
QR0101-12P-14S-01UA-01EM	0	99	1x100M Ethernet, 1xair	13x20A,2x10A,12x7A	1	0	0-250	185
QR0301-04P-20S-02EG-12U2	0	120	20xSignal, 2xGigabit Ethernet, 3xAir	4x5A	12	0	0~5	283.5
ER000-04P1-02U2-01HD	0	76	1xHDMI	4x5A	2	0	0~300	90
ER018-04P-02U2	18	86	/	4x5A,1xPE	2	0	0~300	76.4
ER020-01U2	20	58	/	/	1	0	0~300	39
ER038-27P-15S-08EG-02U2	38.1	119	16xSignal,1xRS232, 8xGigabit Ethernet	16x10A,6x5A	2	0	0~300	447



Our HD slip rings can simultaneously transmit electrical signals as well as HD video signals and high-speed digital signals, which meet the requirements of electromagnetic compatibility EMC. The maximum they can support is 2K @ 90 Hz video standards, no splash screen, no lost frames - gold point of contact to ensure long working life. HD slip rings adopt leading military technology, and have the advantages of stable transmission, low signal attenuation loss, and ultra-low transmission fluctuation.

Feature

- Up to 2K @ 90Hz
- No video flash and no frame loss
- Low contact resistance
- Compact dimension

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current		CKT No. of HD		IP Grade	Rotation speed (rpm)	Length (L) (mm)
			Signal/1A	Power(2-60A)	HD	Video spec			
RR2402C	0	Φ24.8	/	24x2A	1	1080P@60Hz	IP41	0-100	54.8
AR25J-04P1-30P-01HD-01EM	0	Φ25	1x100M Ethernet	4x5A,30x20A	1	1080P@60Hz	IP40	0-200	87.5
AR-30S-01EG-01UB-01HD-01R	0	Φ45	1xGigabit Ethernet, 1xUSB,1xRF	30x2A	1	1080P@60Hz	IP54	0-50	78.1
ER000-03P-04P2-23S-01HD	0	Φ49.8	23xsignal	3x20A,4x10A	1	1080P@60Hz	IP54	0-100	100
ER000-02HD	0	Φ56	/	/	2	1080P@60Hz	IP54	0-300	47
ER000-02P1-02P2-02P-30S-HD	0	Φ62	29x1A,1xsignal	2x10A,2x5A, 2x2A	1	1080P@60Hz	IP54	0-30	145
ER000-04P1-02U2-01HD	0	Φ76	2xUSB2.0	4*5A	1	1080P@60Hz	IP54	0-30	90
ER000-07P-25S-01EG-01HD	0	Φ86	9xsignal,4xRS422, 1xGigabit Ethernet	3x10A,4x5A, 2x2A	1	1080P@60Hz	IP56	0-150	209
ER004-04P-01S	Φ4	Φ34.9	4xsignal	/	1	1080P@60Hz	IP54	0-400	42
ER012-05P2-02S-HD02	Φ12.7	Φ56	2xsignal	5x10A	2	1080P@60Hz	IP51	0-300	63
ER025-19P-01EG-01U2-03HD	Φ25.4	Φ95	1xGigabit Ethernet, 1xUSB2.0	2x60A,6x25A, 2x10A8x7A,1xPE	3	1080P@60Hz	IP51	0-300	238
ER038-32S-03HD	Φ38	Φ99	32x1A	/	3	1080P@60Hz	IP44	0-250	173.2





Our water-proof slip rings are designed for ships, harbor equipment, test equipment and some applications which have water or moisture environments, to transmit precision signals, weak current, large current, and high voltage. Its design prevents the liquid seeping into the slip ring, with the characteristics of low torque on rotation, and low signal transmission loss, as well as no need for maintenance, low electrical noise, long lifespan, and so on.

Feature

- IP Protection reach to IP68
- High pressure resistant, anti-corrosion
- Load-bearing
- Could work under water 1000M
- Integrated structure design, convenient to install

Option

- Installation way
- Cable outlet direction
- Housing material

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current			Rated voltage (VAC/DC)	IP grade	Rotation speed (rpm)	Length (L) (mm)
			Signal(2A)	Power(5-30A)	High power (≥30A)				
ER000-21P-05P2	0	Φ70	21x2A	5x10A	/	200	IP65	0~15	158
ER000-03P-IP68	0	Φ185	/	/	3x85A	1100	IP68	0~50	144.2
ER000-08P-08S	0	Φ120	8xSignal	8x15A	/	380	IP66	0~50	166
ER000-02P-04S-02F-IP66	0	Φ140	2x2A,2xSignal, 2xFiber optic	/	/	500	IP66	0~50	74
ER000-12P2-01PE	0	Φ210	/	12x10A,1xPE	/	415	IP65	0~20	190
ER008-02P	Φ8	Φ50	/	2x5A	/	380	IP68	0~300	28
ER008-02P-01EM-IP68	Φ8	Φ86	1xEthernet	2x8A	/	220	IP68	0~50	75
ER010-02P-07S	Φ10	Φ52	7xSignal	2x14A	/	24	IP65	0~30	59
ER025-12P3	Φ25.4	Φ86	/	12x15A	/	380	IP65	0-300	85.1
ER025-08P2-08S-IP67	Φ25.4	Φ135	8x2A	8x10A	/	220	IP67	0~50	106
ER038-04P-19S	Φ38.1	Φ99	19xSignal	4x25A	/	380	IP65	0~300	134.9
ER038-06P2-02EG-IP64	Φ38.1	Φ119	2xEthernet	6x10A	/	220	IP64	0~60	132
ER044-04P2-04S	Φ44	Φ108	4x1A	4x10A	/	440	IP67	0~600	71
ER050-10P2-14S-A-IP65	Φ50	Φ119	14xSignal	10x10A	/	380	IP65	0~100	110
ER060-02P-01S	Φ60	Φ140	1xRS422	2x20A	/	30	IP68	0~30	88
ER088-04P1-44S-IP65-JZ	Φ88	Φ140	44xSignal	4x5A	/	32	IP65	0~50	173
ER127-06S	Φ127	Φ230	6x1A	/	/	220	IP65	0~10	244.5



Explosion-proof slip rings can also be called flameproof slip rings, which refer to the conductive design with good sealing and airtightness. They can work in explosive environments, generally in petroleum, chemical/explosive dust, and other special environments. These explosion-proof slip rings can be applied to ZONE 0, 1, and 2.

Feature

- Protection grade up to IP68
- Suitable working environment in temperature of -45°C~135°C
- High safety & high reliability
- Explosion-proof certification available

Option

- Current 10-400A
- Explosion grade
- Circuit number

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current			Explosion proof grade	Shell material	Rotation speed (rpm)	Length (L) (mm)
			Signal (2A)	Power (3-30A)	High power (≥30A)				
ER-EX-04S	0	Φ65	4xSignal	/	/	EX II/2G EX ib mb/EX pyb IIC T6 Gb/Gb	SUS	0~50	67
ER-EX-06S	0	Φ65	6xSignal	/	/	EX II/2G EX ib mb/EX pyb IIC T6 Gb/Gb	SUS	0~50	67
ER-EX-03P2	0	Φ160	/	3x10A	/	Exd IIBT4 Gb IP65	AL Alloy	0~50	142.9
ER-EX-07P2	0	Φ160	/	7x10A	/	Exd IIBT4 Gb IP65	AL Alloy	0~50	142.9
ER-EX-04P	0	Φ160	/	/	4x100A	Exd IIBT4 Gb IP65	AL Alloy	0~50	198
ER-EX-03P-06S	0	Φ220	4xSignal	/	3x100A	Exd IIBT4 Gb IP65	AL Alloy	0~50	271
ER000-EX-17P3	0	Φ250	/	17x5A	/	Exd IIBT4 Gb IP65	AL Alloy	0~50	167
ER-EX-11P-04S	0	Φ530	4xSignal	/	11x63A	Exd IIBT4 Gb IP65	SUS	0~50	740
ER042-EX-15P-IP68	Φ42	Φ145	/	/	15x50A	Exd IIBT4 Gb IP68	SUS+AL Alloy	0~50	243
ER060-EX-01P2	Φ60	Φ160	/	1x10A	/	Exd IIBT4 Gb IP65	AL Alloy	0~10	93
ER180-EX-04S	Φ180	Φ302	4xSignal	/	/	Exd IIBT4 Gb IP65	AL Alloy	0~50	173.5

High speed & long life slip ring

Large size slip ring



High speed slip rings have an average speed of 800rpm to 15000rpm, and have strong wear resistance. Using advanced technology and special structures, the high-speed slip rings achieve stable performance, reliable signal transmission, and a lifetime of up to 100 million revolutions, or more, during high-speed operation. They are mainly used for high-speed train testing, eddy current testing, non destructive testing, and testing of other equipment.

Features

- Adopt special technology
- Power and signal transmission
- Low torque, low loss, high reliability, long life
- Max rotation speed up to 15000 rpm
- Compact size, light weight



The large size slip ring is known for its large through hole size, which is generally used in larger equipment and larger systems. The hole size can be as large as 1000mm or more, and can be directly installed in the center of the rotary system to solve the current and signal transmission problems. These slip rings have high protection levels, and can be directly mounted outdoors, commonly used in sewage treatment, large material transfer equipment, and other systems.

Features

- Through hole size up to 1000mm
- High level protection grade for outdoor use
- With maintenance window for easy maintenance
- Integrated different types of current and signal

Options

- Circuit channel
- Current Size
- Protection grade
- Installation way
- Signal type

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current		Rotation speed (rpm)	Life (Million Revolution)	Length (L) (mm)
			Signal(1~2A)	Power(3-30A)			
CR05C	0	Φ5.9	5x1A	/	0~300	20~50	11
ER000-01S-01F	0	Φ55	1xFiber, 1xRF	/	0~6000	20~50	117.8
ER000-35P-GS	0	Φ60	35x1A	/	0~3000	20~50	117
ER008-03P-12S-GS	Φ8.5	Φ34	12x1A	3x3A	0~2000	20~50	43
ER025-06S	Φ25.4	Φ86	6xSignal	/	0~1500	20~50	51.3
ER028-03P3	Φ28	Φ90	/	3x15A	0~1420	20~50	105
ER030-08	Φ30	Φ61	8x2A	/	0~2000	> 1.5x10 ²	35.9
ER038-15P-02S	Φ38.1	Φ99	1xRS485	15x10A	0~3000	20~50	95.8
SR-C-038-07P2	Φ38.1	Φ67.5	/	7x10A	0~5000	> 2x10 ²	165
ER040-08S-GS	Φ40	Φ119	4xK Thermocouple	/	1000~4000	20~50	85

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current			Rotation speed (rpm)	Rated voltage (VAC/DC)	Length (L) (mm)
			Signal(1-2A)	Power(3-30A)	High power (≥30A)			
ER100-06P2-08P1	Φ100	Φ176	6xSignal	8x5A,6x10A	/	0~60	220/24	60
ER101-04P-06S	Φ101.6	Φ203	/	/	4x50A	0~30	500	123.8
ER110-08P-12S	Φ110	Φ192	/	/	/	0~10	380	102
ER112-02P	Φ112	Φ192	/	2x3A	/	100	380	66
ER115-06P3-19S-01EM	Φ115	Φ185	1xEthernet	6x15A,17x5A,2x6A	/	0~60	220	140
ER120-04P1	Φ120	Φ216	/	4x5A	/	0~250	380	99
ER120-05P2-08S	Φ120	Φ207	8xSignal	5x10A	/	0~10	380	119
ER130-19P-06S	Φ130	Φ220	2xPT100,10x2A,4xSignal	3x8A,2xPE	/	0~50	400	102
ER155-04S	Φ155	Φ260	4xK thermocouple	/	/	0~100	380	91
ER180-04P-04P2-04P1-26S	Φ180	Φ310	10xLimit switch signal, 2 x encoder Signal	4x20A,4x10A 4x5A,1xPE	/	0~30	0~220	292
ER180-04S	Φ180	Φ306	4xK thermocouple	/	/	0~50	380	110
ER180-100S-14S	Φ180	Φ306	14xSignal	10x5A	/	0~100	380	191.5
ER190-10P2-46P	Φ190	Φ339	20x2A,22x1A	10x10A	4x30A	0~500	0~500	410
ER220-06P-17S-02EM	Φ220	Φ350	4xRS422,2xPAL,2xEthernet	/	6x30A	0~30	0~220	262
ER-C-280-08P-08S	Φ280	Φ410	8xSignal	/	6x40A	2~8	220	265
ER-C-300-06P-08S	Φ300	Φ430	8xSignal	6x15A	/	2~8	0~220	230
ER300-24P	Φ300	Φ476	4x thermocouple	/	12x30A	0~200	380	358
BHR-C-350-06	Φ350	/	/	/	/	0~5	380	880
ER435-04P-12S	Φ435	Φ520	6xK thermocouple	3x15A	1x35A	0~60	0~440	103
ER-C-550-06P3	Φ550	Φ970	/	6x15A	/	1~2	380	270
ER-C-700-06P	Φ700	Φ948	/	6x24A	/	1~2	380	270
ER-C-800-04P-02S	Φ800	Φ1048	2xSignal	4x24A	/	1~2	380	270



Multi-channel slip ring

Multi-channel sliprings have more than 50 channels, and can reach up to 500 channels. They can integrate big or small current, digital signals, analog signals, fiber optics, and radio frequency. This type of multi-channel slipring has long lifespan characteristics, and speeds up to 5000rpm.

Feature

- Circuit number up to 500
- Compact size, low weight
- Rotating smooth, stable signal



High & Low temperature slip ring

High temperature slip rings are mainly used in hot rollers, heating devices, and other high temperature environments. The use of special high temperature resistant contact materials, combined with heat insulation structures, fully ensure stable transmission performance and long life in the high temperature environments of 250°C.

Feature

- Endure high temperature up to 250°C
- Anti-corrosion
- Aging-resistance & Stable performance



Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current			IP grade	Rated voltage (VAC/DC)	Rotation speed (rpm)	Length (L) (mm)
			Signal(1A)	Power(2-30A)	High power (≥30A)				
AR-130S	0	Φ29	130x signal	/	/	IP51	0-240	0-480	150
AR-08P-102S	0	Φ61	102x signal	8x8A	/	IP54	0-220	0~300	286.9
ER000-80P	0	Φ86	/	80x2A	/	IP54	0-240	0~200	297.9
ER000-156P	0	Φ119	24xRS485	130x2A	/	IP44	0-240	0~100	302
ER000-14P1-157P	0	Φ90	20x1A	14x5A, 137x2A	/	IP54	0-240	0~100	438
ER000-240P	0	Φ119	/	240x2A	/	IP54	0-240	0~100	345
ER000-260P	0	Φ119	/	260x2A	/	IP54	0-240	0~100	402
ER023-26P-94S	Φ23	Φ99	94x1A	20x10A	6x30A	IP54	0-400	0~150	385
ER023-126P	Φ23	Φ99	84x1A	22x10A, 14x2A	6x30A	IP54	0-400	0~20	401.6
ER040-148P	Φ40	Φ130	/	5x10A, 22x5A, 100x2A	21x30A	IP54	0-700	0~150	498

Model list

Model	ID (mm)	OD (mm)	CKT No. of Signal/Current			Operation temperature	Rotation speed (rpm)	Rated voltage (VAC/DC)	Length (L) (mm)
			Signal(1-2A)	Power(3-30A)	High power(≥30A)				
BHR-C-57P-GW	0	Φ500	/	4x10A, 44x15A	4x100A, 1xPE, 5x40A	-20~+150	0-5	0-380	970
ER000-25P	0	Φ314	/	20x20A	5x60A	+80~+250	0~5	0~600V	545
ER030-08	Φ30	Φ61	8x2A	/	/	-20~+125	0~2000	0~220V	35.9
ER038-02P-11S-JZ	Φ38.1	Φ99	3x1A, 9xSignal	2x18A	/	-55~+75	0~100	0~380V	53
ER044-04P2-04S	Φ44	Φ108	4x1A	4x10A	/	-20~+85	0~600	0~440	71
ER55-05P2-10S-JZ	Φ55	Φ110	10xS	5x10A	/	-55~+70	0~50	32VAC	60
ER088-04P1-37S-JZ	Φ88	Φ140	37xS	4x5A	/	-55~+70	0~50	32VAC	154.5



Fiber optic integrate Electrical slip ring



This series of slip ring is a non-standard custom series, designed for special applications. This product integrates power and signal, and most importantly it integrates the FORJ. The current rating can be up to hundreds of amps, signal types can cover all types according to the application. Fiber optic rotary joint includes single mode and multi-mode, and the number of channels can be single to dozens. This kind of slip ring has stable performance and various functions, and is widely used in various photoelectric pod systems.

Model list

Model	Channel No. of Fiber optic	CKT No. of Signal/Current			OD (mm)	IP grade	Rotation speed (rpm)	Length (L) (mm)
		Signal(1-2A)	Power(3-30A)	Hight Power (≥30A)				
ER000-01S-01F	1	1x Fiber optic	/	/	Φ55	IP54	0-500	41.3
ER000-02P1-04P2-07P-28S-01F	1	25xSignal, 1xvideo Signal	2x20A,2x10A,2x5A, 2x4A,3x7A, 2xPE	/	Φ61	IP54	0-300	97
ER000-02P3-04P2-05P-33S-01F	1	33xSignal, 1xvideo Signal	4x10A,2x15A,3x7A,	/	Φ62	IP54	0-300	105.9
ER000-02P-20S-02EG-01F	1	20xSignal, 2xEthernet	/	2x30A	Φ56	IP54	0-300	131.4
ER000-03P1-14P2-02P-38S-04HD-01F	1	2x2A,38xSignal, 4xvideo Signal	14x10A,3x5A	/	Φ62	IP54	0-300	132
ER000-13P-24S-01F	1	24x1A,4x2A	7x20A,2x7A	/	Φ62	IP54	0-100	96.7
ER000-02P-20S-04EG-01F	1	20xSignal, 4xEthernet	/	2x30A	Φ56	IP54	0-300	131.4
ER000-02P-04S-01F-IP66	1	4x20mA, 2x100mA	/	/	Φ86	IP66	0-50	80
ER000-01P-11P2-34S-02F	2	30x1A,4x2A	7x10A,4x6A	1x30A	Φ99	IP54	0-200	164.8
ER000-05P-12P2-70S-02F	2	63x1A,7x2A	12x10A,4x6A	1x30A	Φ99	IP54	0-120	282.2
ER000-03P2-04S-02F-IP61	2	4xSignal	3x10A	/	Φ80	IP61	0-250	108
ER000-02P4-04S-02F	2	/	4x3A,2x20A	/	Φ70	IP54	0-200	79
ER000-12P2-04F	4	/	12x10A	/	Φ119	IP51	0-100	116
ER000-01P2-04F	4	/	1x10A	/	Φ135	IP54	0-10	48
BHR-C-41P-04F	4	/	24x16A	1x250A,4x130A, 4x100A	Φ420	IP65	0-15	980
BHR-C-32P-06F	6	/	/	32x20A	Φ350	IP54	0-30	820
ER000-08P3-06F	6	/	8x15A	/	Φ99	IP54	0-250	124
BHR-C-36P-05EG-20F	20	5xEthernet	25x10A	/	Φ600	IP51	0-5	697

Pneumatic/Hydraulic integrate electrical slip ring



Electric slip rings and pneumatic or hydraulic rotary unions, can be designed into one single integrated unit, for applications that require both electric rings and pneumatic or hydraulic rotary unions. This kind of slip-ring can be integrated with current and signals of different specifications according to specific requirements. The pressure for hydraulic and pneumatic slip ring ranges from 10MPa or higher, and the speed can reach 680RPM.

Feature

Different sealing forms can be selected according to different applications
 Stable performance and long lifespan
 The slip ring part can integrate current and various signals
 The number of electric circuits can reach hundreds, and the gas and liquid channels can reach 16 channels.
 The external dimension and installation method can be customized

Option

Circuit number
 Pressure and joint specifications
 Current and signal type
 Installation method
 Transmission medium type

Model list

Model	ID (mm)	OD (mm)	Pneumatic/Hydraulic		CKT No. of Signal/Current			Rotation speed (rpm)	Length (L) (mm)
			Channel No.	Pressure	Signal(1-2A)	Power(3-20A)	High power (≥20A)		
QR0101-11S	0	Φ55	1	0.8MPa	11x0.5A	/	/	0-300	45.5
QR0801-36P1	0	Φ56	8	-100KPa~+0.6MPa	/	36x5A	/	0-250	251
QR0101-25P	0	Φ56	1	1MPa	14xencoder Signal, 3xSignal	8x3A	/	0-50	85.6
QR0102-05P-01EM	0	Φ65	1	10MPa	1xEthernet	5x3A	/	0-100	52
QR0101-03P2-02P1-01EG	0	Φ86	1	1MPa	1xEthernet	3x10A,2x5A	/	0-50	71
QR0101-12P-14S-01 UA-01EM	0	Φ99	1	1MPa	1xUSB2.0,1x Ethernet	2x 10A,12 x7A	13 x20A	0-250	185
QR0103-04P1-05PE-02EG	0	Φ99	1	1MPa	2xEthernet	4 x 5A , 5 x PE	/	0-250	124.4
QR0102-03P	0	Φ100	1	4MPa	/	/	3x25A	0-100	66
QR0203-04P2-04S-02EG	0	Φ86	2	0.9MPa	2xRS485,2xEthernet	2x10A	/	0-100	165.6
QR0201-48S	0	Φ90	2	6MPa	48x1A	/	/	0-80	99
QR0201-07P-02EG	0	Φ100	2	1MPa	2xEthernet	/	5 x25A, 2 x20A	0-100	206.8
QR0202-10P1-05S	0	Φ100	2	6MPa	5xCommunication Signal	10x5A	/	0-30	157
QR0203-03P3-47S	0	Φ105	2	1MPa	1xPS422,1xRS232, 1xUSB2.0, 1xHDMI,1xEthernet	3x10A	/	0-100	178
QR0208-72P	0	Φ116	2	0.8MPa	42x2A	18x10A, 8x5A	4x20A	0-100	380.5
QR0201-85-08P-04S-02EG	Φ85	Φ160	2	0.5MPa	2 xEthernet,4x2A	/	8 x 30A	0-150	246.5
QR0301-08P-04S-02 EG	0	Φ100	3	5MPa	4x2A,2xEthernet	/	8 x 30A	0-150	234
QR0301-04P-20S-02 EG-12U2	0	Φ120	3	1MPa	20xSignal,12xUSB, 2xEthernet	4x5A	/	0-5	283.5
QR0304-18P2-16S-01 EM	0	Φ125	3	0.8MPa	2x485Signal, 1xservo motor Signal, 2xEthernet	18x10A	/	0-250	361

RF integrate electrical slip ring

Cable reel



The RF and electrical integrated slip ring is an off standard customizable series. It is developed specifically for radar, satellite antenna and other equipment. The product integrates power channels, signal channels, and high-frequency channels. The current is up to hundreds of amps and signal types can cover all types depending on the application. The number of RF channels ranges from single to five. Frequency is optional up to 50GHz. This series of slip ring has stable performance and meets the requirements of EMC. It solves the single electrical slip ring's limitation on the frequency range.



Cable reels are widely used in heavy machines like cranes, container cranes, loading machines, tower cranes and so forth. We have upgraded the normal cable reel, to integrated RF, fiber, and other types of signals in the design. This kind of cable reel is successfully applied to extensible mast systems, and Electro-optical mast systems for lifting.

Option

- Maximum retraction range
- IP Level
- Connection way
- Signal type
- Cable length

Model list

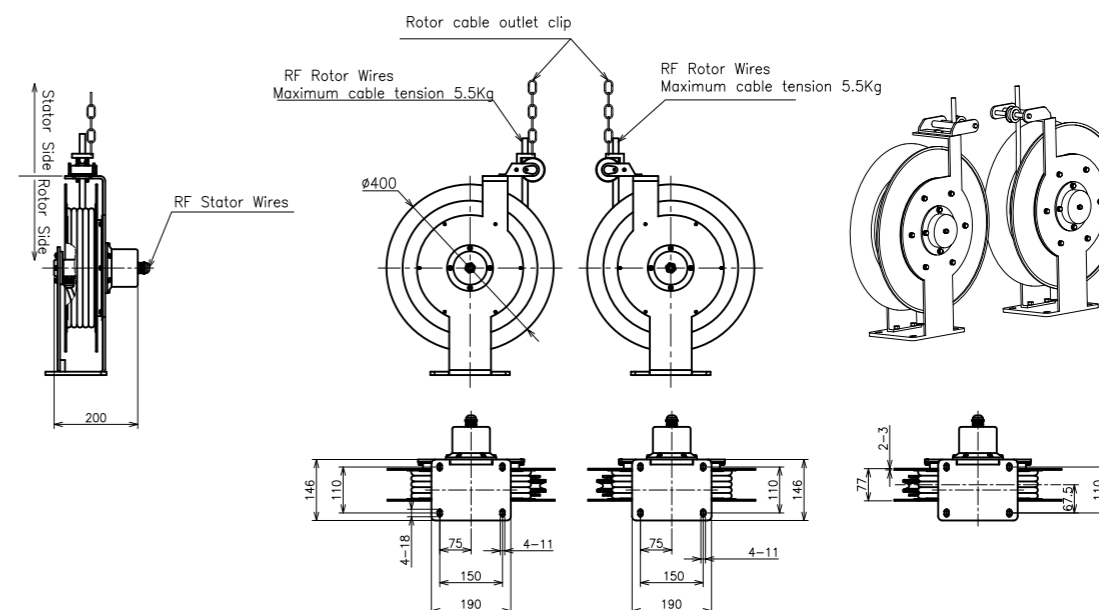
Model	OD (mm)	RF parameter		CKT No. of Signal/Current		IP grade	Rotation speed (rpm)	Length (L) (mm)
		RF channel No.	Frequency range(Hz)	Signal/1A	Power (2-50A)			
ER000-06P-10S-01R	Φ22	1	DC-3G	10xSignal	4x6A,2x2A	Ip54	0-50	54.8
AR-30S-01EG-01UB-01HD-01R	Φ45	1	DC-3G	1xEthernet,1xUSB	30x 2A	IP54	0-50	78.1
AR-32S-01EG-01UB-01HD-01R	Φ45	1	DC-3G	1xEthernet, 1xUSB, 2xSignal	30x 2A	IP54	0-50	79.6
ER000-12P1-01R-IP65	Φ45	1	4-30	8x1A	4x3A	IP65	0-300	59
ER000-26P-01R	Φ260	1	2.7-2.9G	22x1A	4x40A	IP51	0-50	285.2
AR-56A-04P1-40P-02RF	Φ25	2	930-1750M	/	4 x6A,40 x2A	IP54	0-50	85.7
ER000-02P2-06S-02R	Φ90	2	DC-5G	6 xSignal	2 x 25A	/	0-50	63.3
ER000-04P3-06S-02EM-03R	Φ119	3	DC-12G	4xRS,2xEthernet	4x15A	IP51	0-100	111.5
AR-24S-04RF	Φ24.8	4	90-1300M	/	24x2A	IP51	0-10	85
ER000-05P2-05S-04R	Φ105	4	DC-900M	4x1A	4x10A	IP65	0-60	88.5
ER000-128P-30S	Φ275	30	DC-40MHz	/	24x10A, 105x2A	IP51	0-50	726

Feature

- Adopt double-coil spring design, wider range of retraction and release, gently and stable retracting force
- Different signals and currents can be integrated
- Bracing wire stable, good concentricity
- PG connection, high protection level
- Good weather resistance, appropriate to various environment

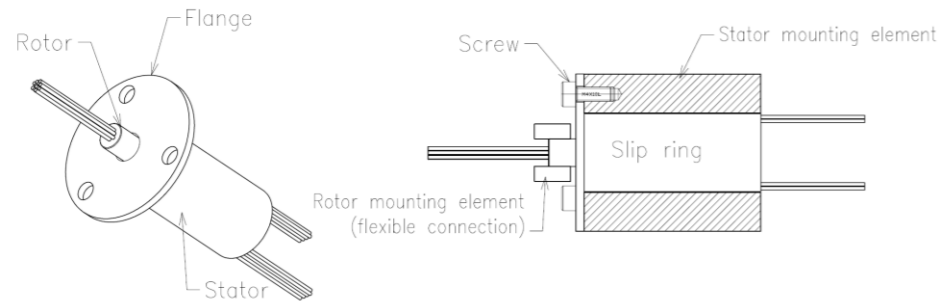
Model list

Model	Interface	Frequency range	Average power	Peak power	Insertion loss, Max	Insertion loss fluctuation	Phase fluctuation	Cable length
ER-15-01R	N type	DC~2GHz	200W@1GHz 150W@2GHz	1500W @1GHz	4.5dB @ 0~2GHz	0.05dB	1°	1500mm(Φ13)



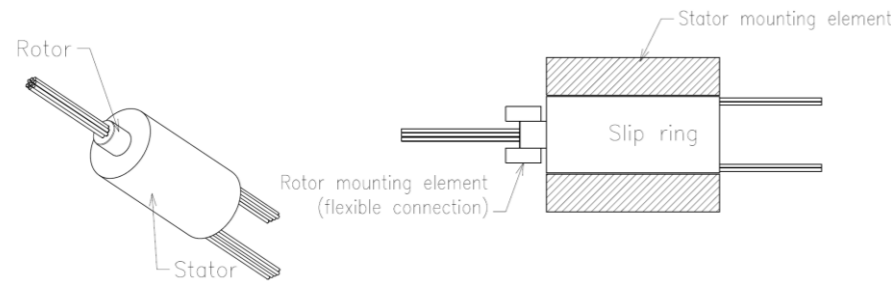
(AR / BR/ CR Series Capsule Slip Rings with Flange) Installation Guide

1. First, install the stator end of the slip ring. Fix the flange of the slip ring housing with screws. It is necessary to ensure the rotating parts are coaxial with the design, and the deviation should not exceed $\pm 0.1\text{mm}$.
2. Then install the rotor end of the slip ring, fasten the drive shaft of the equipment with screws or flat and keep it concentric.
3. Debug the overall concentricity of the integrated slip ring to ensure smooth operation of the slip ring.



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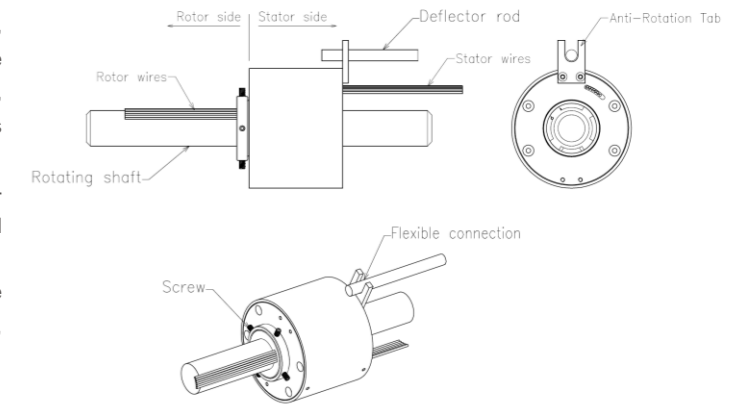


AR / BR / CR Series Capsule Slip Ring Attention

1. When install the slip ring, be sure to protect the wire, avoid the damaged insulation layer of the lead wire, which will affect the performance of the product.
2. Both the rotor end and stator end cannot be tightly connect, one end must be kept tight and the other end should be flexible that can be driven concentrically.
3. The fixing screws need to be prevented from loosening, and cannot be loosened due to vibration and impact during work.
4. The slip ring cannot be used to bear the weight of the connected equipment, and protect the wire from being pulled or endured when the machine is working.
5. If the customers need to drive the slip ring to rotate with the wire on the rotor side, please confirm with our company to avoid wire damaged when the equipment is working.
6. Do not disassemble the product. If there is any problem with the product, please contact and consult us.

ER Series Through Hole Slip Ring Installation Guide

1. Before install the slip ring, comb the wires at both ends of rotor and stator, then put the slip ring inner hole on the rotating shaft, and then use four screws on the rotor end to fix it through the cooperation of the shaft and hole. Before tightening the screws, should turn the slip ring to ensure that the center of the slip ring is concentric with the rotating shaft. Then tighten the screws.
2. The stator end is inserted into the U-shape groove of the anti-rotation tab with the lever, and then comb the lead wire, to avoid twisting between the lead wire and outlet of the surrounding rotor.
3. The slip ring is a precision electrical component, if the operating environment is harsh, should add protective measures, or customize a slip ring with high protection.

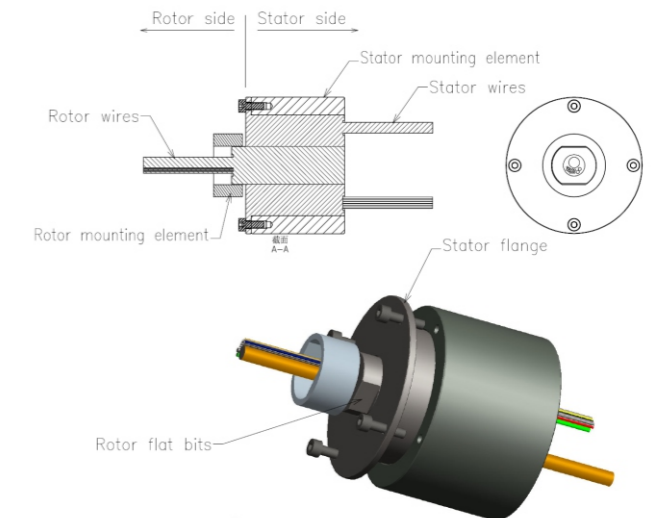


ER Series Solid Slip Ring with Flange Installation Guide

1. Before install the slip ring, comb the lead wire firstly, then insert the rotor protruding part of the slip ring together with the lead wire into the rotating shaft hole of the equipment, and level the two sides of the shaft with the shaft hole (clearance fit) to limit and drive rotation.
2. The stator end of the slip ring is positioned through the aperture of the outer casing of the slip ring, and the inner side of the flange is attached to the fixing plane of the equipment, then the screw holes are aligned and fixed properly. Before tightening the screws, the rotating part of the equipment must be rotated to ensure that the center of the slip ring is concentric, and then tighten the screws.
3. The stator end and rotor end of the slip ring can be interchanged according to actual needs.
4. The slip ring is a precision electrical component, If the working environment is harsh, should add protective measures, or select a customized slip ring with higher protection level.

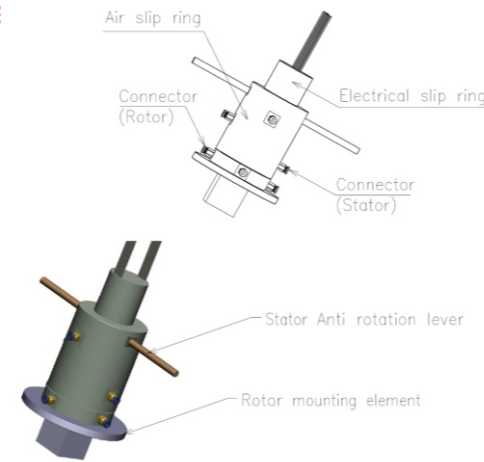
ER Series Through Hole / Solid Slip Ring with Flange Attention

1. The slip ring cannot be used to bear the weight of connected equipment, and the wire cannot bear external pulling force too.
 2. During the installation, both ends of the slip ring should be set aside for the outlet line, and protect the wire from being scratched, separated from each wires to avoid the interference of the rotation process, to ensure the performance is not affected.
 3. Both the rotor and the stator lead wire of the slip ring cannot be tightly connect, one end must be kept tight and the other end should be flexible, otherwise it will affect the service life of the slip ring.
- All the screws must be protected from loosening due to vibration or impact, and can not be loosened due to vibration and impact during working.



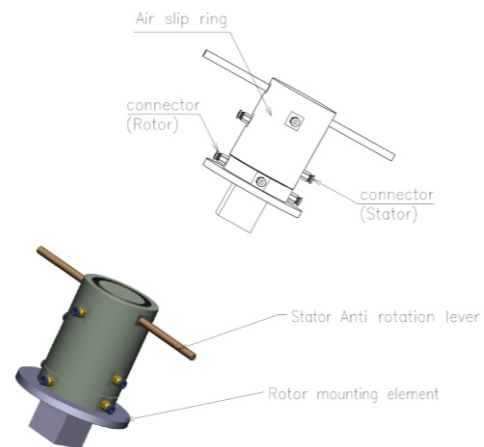
QR Series Integrated Electrical Slip Ring Installation Guide

1. The installation position of the slip ring matches the equipment. It is necessary to connect the air pipe at the rotor end firstly to ensure that there is no air leakage or liquid leakage.
2. Before installing and fixing the slip ring, debug the concentricity of the rotor side to ensure smooth operation of the slip ring.
The stator end of the slip ring can be stopped by that anti-rotation rod is inserted into the anti-rotation hole. It can also be customized according to customer requirements.



QR Series Pneumatic Rotary Joint Installation Guide

1. The installation position of the slip ring should match the equipment. It is necessary to connect the air pipe firstly at the rotor end to ensure that there is no air leakage;
2. Before installing and fixing the slip ring, debug the concentricity of rotor to ensure smooth rotation of the slip ring.
3. The stator end of the slip ring can be stopped by that anti-rotation rod is inserted into the anti-rotation hole. It can also be customized according to customer requirements.



QR Series Integrated / Pneumatic Rotary Joint Attentions

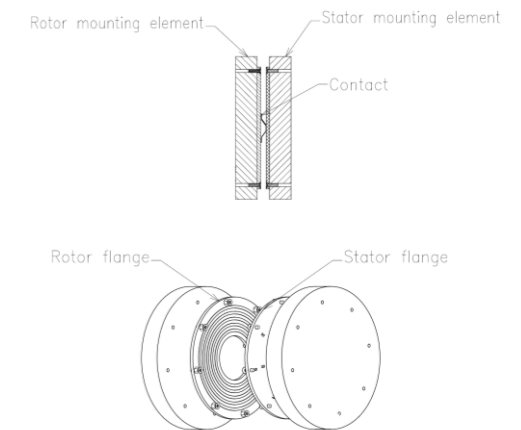
1. The slip ring should be prevented from hitting and falling off during handing and storage, to avoid damage to the interface and internal parts of the slip ring
2. The bolts used in installation and fixing shall be protected from looseness.
3. When installing the screwed fittings and rotary joint, should pay attention to whether the screw thread direction of the inner and outer pipe corresponds to the rotation direction of the drum, and the the screw thread direction of the inner and oute pipe should be corresponding consistent.
4. The inlet and outlet of the rotary joint should be directly connected with the hose as far as possible, and the transmission medium should be filtered without impurities before entering the slip ring to ensure the service life of the slip ring
The support and anti-rotation of the rotary joint should be appropriate, and the general stop rod and the fixed part should maintain a certain degree of freedom.

PSR Series Separate Pancake Slip Ring Installation Guide

1. Firstly, install the rotor side of the slip ring, fix the PCB at the rotor side to the flange of the device with corresponding screws, to ensure that the PCB is concentric with the flange plate should locate the inner diameter or outer diameter of the slip ring.
2. Then, install the stator end of the slip ring, fix the PCB of the stator end to the flange of the device with corresponding screws.
3. Debug the coaxiality of the slip ring. The contact of the brush shrapnel on the stator side must be adjusted to the center of the rotor side ring to ensure that the coaxiality tolerance between the slip ring and the equipment is within 0.1mm
4. Debug and control the spacing between two PCB boards at L (+0.1/+0.3) mm, which is to ensure that each contact is in reliable contact with the loop during rotation.

PSR Series Separate Pancake Slip Ring Attentions

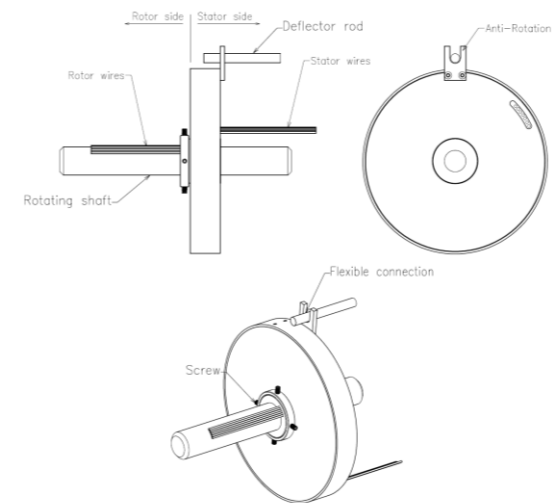
1. When installing slip ring, be sure to protect the lead wires, avoid damage to the insulation layer of the lead wire and affect the performance of the product.
2. When welding wires at the stator end of the slip ring, pay attention to keep the same size of each welding spot, and the amount of solder should not be too large tu ensure that the rings will not touch or be too close to each other.
3. The fixing screws need to be prevented from loosening, and cannot be loosened due to vibration and impact during work.
4. Slip ring can not be used to bear the weight of the connected equipment, and protect the wire from pulling / bearing phenomenon when the equipment is operating;
4. Do not try to disassemble the product, please contact us if there is any problem with the product.



PR Series integral Pancake Slip Ring Installation Guide

1. First, install the rotor end of the slip ring, and put the driving shaft of the equipment through the hole of the integrated pancake slip ring, pass through the installation hole of the rotor side, and it is concentric with the driving shaft and locked.
2. Then install the stator side of the slip ring, insert the anti-rotation tab of the equipment into U-shape groove of the stator side of the slip ring, a certain freedom should be ensured, do not forcibly fix the connection, other wise it will effect the working life of the slip ring.
3. Debug the overall concentricity of the integrated slip ring to ensure smooth operation of the slip ring

PR Series integral Pancake Slip Ring Attentions



1. When installing slip rings, ensure that the wire is well protected to avoid damage to the insulation layer of the wire and affect the product performance
2. Both the rotor side lead wire and stator side lead wire of the slip ring can not be locked and connected, should keep one end is locked and the other end is loose.
3. The fixing screws need to be prevented from loosening, and cannot be loosened due to vibration and impact during work

