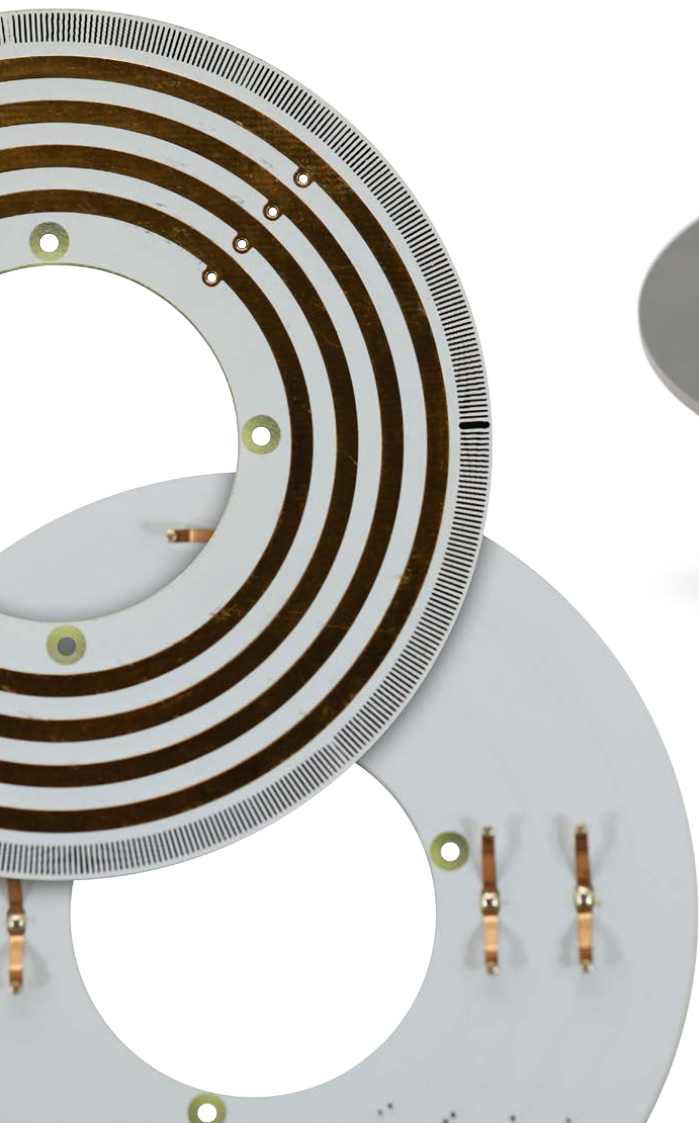




*ROTARX*<sup>®</sup>

# Pancake Slip Rings



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High-Performance Power,  
Signal and Media Transmission

## COMPACT SLIP RINGS

### Our other available catalogues:

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COMPACT SLIP RINGS SOLUTIONS (General catalogue)	(256 pages)
CAPSULATED MINIATURE SLIP RINGS	(44 pages)
AUTOMATION SLIP RINGS	(32 pages)
THROUGH-BORE SLIP RINGS	(68 pages)
SEPARATE SLIP RINGS	(28 pages)
FASTON SLIP RINGS	(24 pages)
MINIATURE HYBRID SLIP RINGS	(24 pages)
HYBRID SLIP RINGS - Pneumatic / Liquid + Electric	(72 pages)
HYBRID SLIP RINGS - Ethernet + Electric	(34 pages)
HYBRID SLIP RINGS - USB + Electric	(30 pages)
HYBRID SLIP RINGS - Fiber Optical + Electric	(44 pages)
HYBRID SLIP RINGS - Coax + Electric	(40 pages)
HYBRID SLIP RINGS - HD-SDI (1080p)+ Electric	(26 pages)

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# The Company

## Quality and Safety

B-COMMAND was founded in 1995. Since more than 20 years the company has put its focus on **production and sales of electro technical components to all parts of the globe.**

In the early years B-COMMAND focused on electro-mechanical control solutions mainly for the national crane market. Throughout the years the sales area was widened to many international countries and the second main product focus became wind power technology. The company started developing and manufacturing of special limit switches for wind turbines which are still one of the major product lines today.

After more than 10 years of growth and success with electro-mechanical products, another different technology division was established: **electrical transmission technology.**

Due to many analogies with electro-mechanical products and many skilled engineers the new technology focus for transmission of power and signals had been implemented.

QUALITY MANAGEMENT  
Certification 2017



Production & Warehouse

In the beginning the products for electrical transmission technology included simple slip rings for transmitting small power ratings from fixed to rotating parts into machines.

Today, in times of Industry 4.0 and industrial networks, the program contains more than **20.000 possible solutions with combined power and signal transmission, high-frequency solutions, different housing types and super-miniature solutions.**



Offices of our Headquarters Hamburg



## Our technical expertise guarantees the right solution for your applications.

Since more than 10 years the company is certified according to **DIN EN ISO9001:2015 by TÜV in Germany.** All management and production processes are created and approved according to international standards. Especially a **flexible production structure allows short delivery times also for small volume orders or prototypes.**

The purchasing organization of B-COMMAND is internationally targeted. Raw material and production components are sourced from best-rated suppliers worldwide. A network of specialists for all materials is available for developing the best solution for the customers requirements resulting in a perfect fitting product for all individual projects.

B-COMMAND has an international sales network of distributors and sales partners for all regions. Some of the distributors even offer spare parts or series demand products from their own stock in the different countries.

## CONTACT

B-COMMAND GmbH

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22339 DE Hamburg

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W. www.b-command.com  
www.rotarX.com

All activities at B-COMMAND are focused on customer satisfaction. Creating perfect-fitting technical solutions with best quality for marked-based prices – this is our passion.



# Slip Rings Technology

Slip rings are essential electromechanical parts of commercial or industrial machinery. They have to ensure transfer of data, media, energy and electrical signals in best possible conditions. This can only be realized by combination of a targeted design process, selection of best raw materials, professional production conditions, 100% quality control and skilled assembling on customer side.

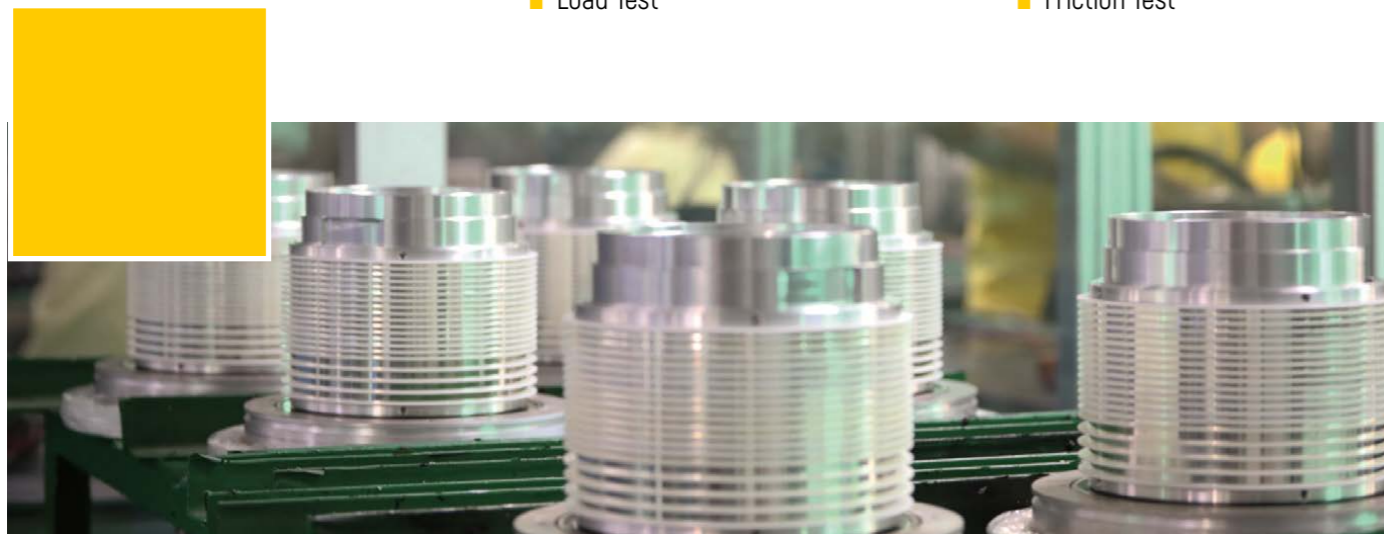


## PREMIUM ENGINEERING

With many years experience and a deep knowledge of all relevant engineering disciplines, B-COMMAND engineering team can provide fast and innovative design solutions for customers around the world. Our engineers are constantly developing new designs and use new materials across a wide spectrum of diverse environments.

In order to ensure only premium-quality products B-COMMAND is able to undertake following tests in our in-house laboratory:

- Humidity Test
- Temperature Test
- Protection Degree Test
- Vibration / Shock Test
- High Pressure / Vacuum Test
- Torque Test
- High Voltage Test
- Large Current Test
- Salt Spray Test
- Load Test
- Electrical Noise Test
- Contact Resistance Test
- Lifetime Test
- Insulation Test
- Frequency Test
- Friction Test



ROTARX - MINIATURE SLIP RINGS

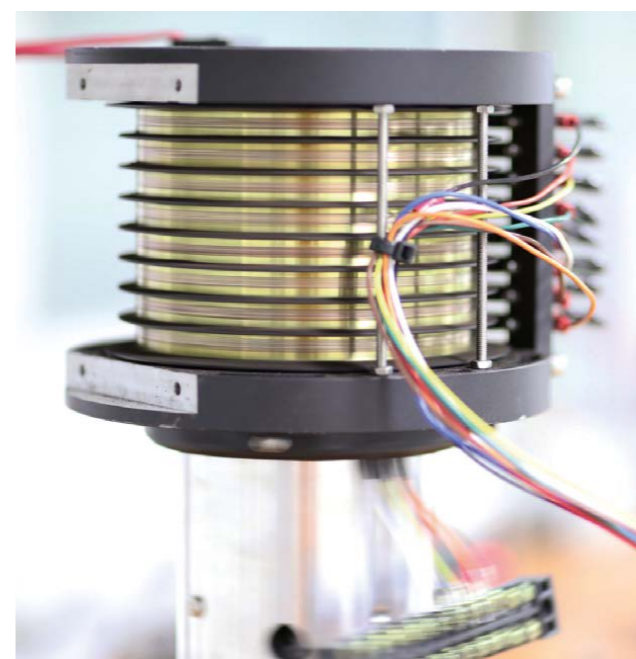
## TOTAL QUALITY CONTROL

High production depth is the key to total quality control. Therefore B-COMMAND has established extended electrical and mechanical production capabilities. Different automatic and semi-automatic multiple axis CNC machining centers, grinding machines, milling machines and coating machines offer a wide range of mechanical options during production process. Only experts with long-term knowledge are operating our machinery in order to grant best quality products for our customers.



## FLEXIBILITY

For B-COMMAND flexibility is not just a word, it is the basis of our organization. Flexible sales and R&D structures with capacity for extensive project inquiries from our customers are as well allocated as flexible production structures with high-volume series production and also fast-track options for small volume orders.



WWW.ROTARX.COM

## INNOVATION

The willingness of lifelong-learning and permanent interest in new technological trends sets our engineering team apart. Industrial communication and electrical complexity of everyday life have moved to a new level and they are still developing fast. We keep an eye on all new technologies, new applications, new materials and forward-looking innovations which can improve or re-invent our products.

# Slip Rings Applications



## WIND POWER TECHNOLOGY

- Small Wind Turbines
- Multi-MW-Turbines
- Signal & Power Transmission



## AEROSPACE TECHNOLOGY

- Drones
- Radars
- Thermal Imaging



## ROBOTIC TECHNOLOGY

- Production Robots
- Inspection Robots
- Packaging Robots



## CAMERA TECHNOLOGY

- TV-Cameras
- Security Cameras
- Inspection Cameras



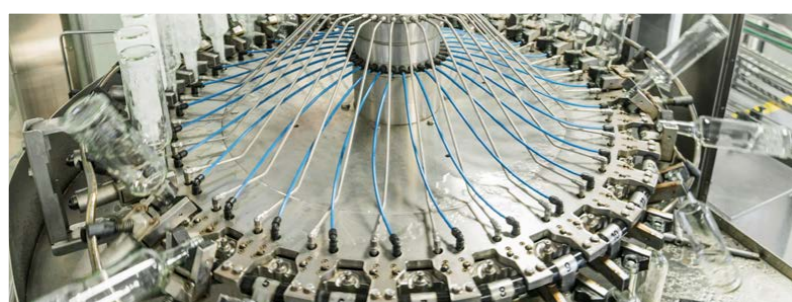
## CRANE TECHNOLOGY

- Post Cranes
- Tower Cranes
- Mobile Cranes



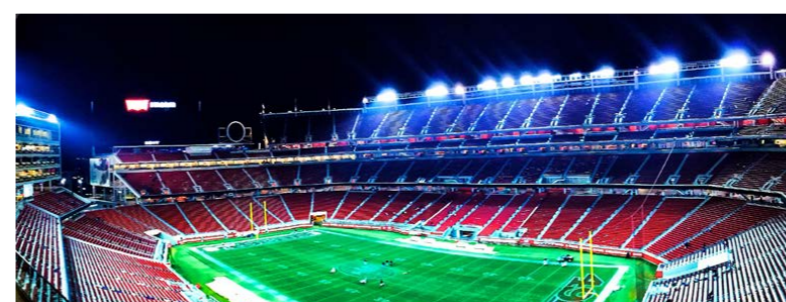
## AMUSEMENT TECHNOLOGY

- Pendulum Rides
- Observation Wheel
- Merry-Go-Round



## PACKAGING TECHNOLOGY

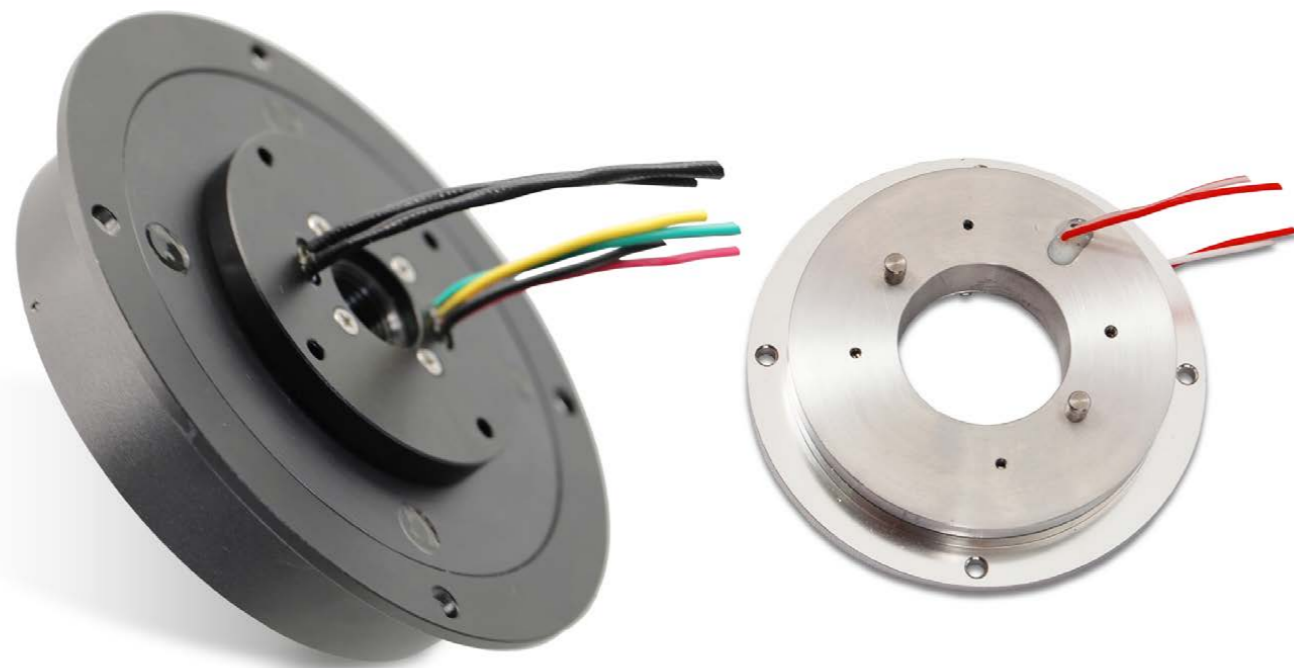
- Packaging Robots
- Filling Machines
- Capping Machines



## STAGE TECHNOLOGY

- Rotating Stages
- Rotating Lights
- Revolving Platforms

## RX-PC Series, with Housing



Pancake slip rings are designed for space-critical applications regarding height dimensions. As the flat shape is similar to a platter, they are also named flat slip rings and platter slip rings.

The pancake slip rings with housing are similar to the through-bore slip rings with special focus on minimum height. The customer can select between radial cable output with minimum height or axial cable output. Depending on the requirement of the customer we offer two different qualities of through-bore slip rings: common quality and industrial quality. Depending on the quality selected, the working life, max. rotation speed and contact materials vary.

The pancake slip rings with housing use the best advanced fiber brush technology and precious metal or gold-to-gold multi-contacting, they offer low electrical noise for high data rate field bus transmission, low contact pressure for long lifetime and they are maintenance free.

We offer standardized & modularized design and fully customizable products according to the special requirements of customers in different applications.

If you have specific customized requirements, please feel free to consult us in order to create the most suitable recommendation for your specification.

### ADVANTAGES

- + Flat Housing Design
- + Free Inner Space / Hollow Shaft
- + Low Contact Resistance
- + Long Lifetime
- + Maintenance Free
- + 360° Continuous Rotation
- + Power & Signal Transmission
- + Customized Circuit Combinations

### MAIN APPLICATIONS

- > Revolving Doors
- > Military Applications
- > Robots
- > Rotating Working Platforms
- > Packaging Machines
- > Hose & Cable Reels
- > Welding Machinery

### PRODUCT CODE

RX	-	AA	BB	CC	-	DD	E	-	FF	GGG	S
		1	2	3		4	5		6	7	8

Example: RX-PC1220-QS1-08010S

(1) Pancake Slip Ring with (2) Inner Diameter 12mm, (3) Thickness 20mm, (4) Common Quality Version, (5) Power transmission 10A, (6) 8 rings for power transmission, (7) 10 rings for signal transmission, (8) Standard Version

1	Series	PC - Pancake Slip Rings	5	Power Level	0 - No Power transmission 1 - Power transmission 10A 2 - Power transmission 20A
2	Inner Diameter	From 12.7mm to 80mm (see drawings for details)	6	Number of Power Circuits	From 2 rings to 24 rings
3	Thickness	From 20mm to 91.9mm (see drawings for details)	7	Number of Signal Circuits	From 2 rings to 48 rings
4	Quality Level	QS - Common Quality Version QI - Industrial Quality Version (see specifications for details)	8	Version	S - Standard C - Customized

### SPECIFICATIONS

#### PANCAKE SLIP RING SPECIFICATIONS

NUMBER OF CIRCUITS 2-24 for power transmission; 2-48 for signal transmission

#### ELECTRICAL SPECIFICATIONS

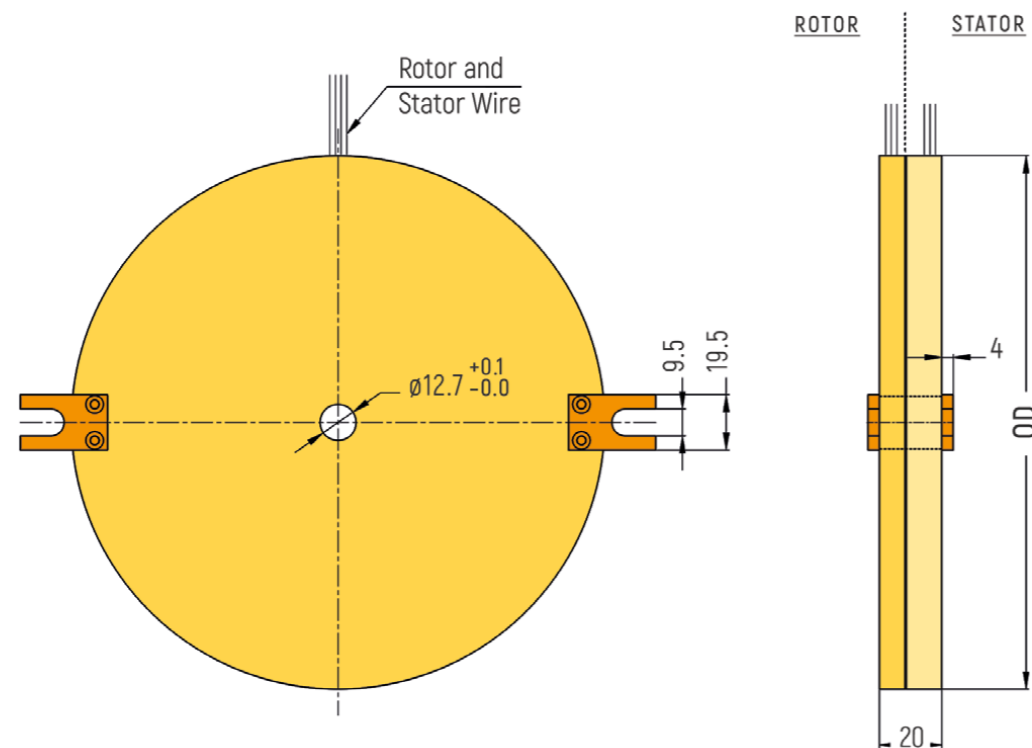
CURRENT RATING	Power transmission circuits: 10A / 20A (see table of possible products for details)
	Signal transmission circuits: 5A
VOLTAGE RATING	Power transmission circuits: 440VAC/DC
	Signal transmission circuits: 240VAC/DC
ELECTRICAL NOISE	max 10mΩ
INSULATION RESISTANCE	≥1000 MΩ @ 500 VDC
LEAD CABLE SIZE	Power transmission circuits: AWG16 Teflon
	Signal transmission circuits: AWG22 Teflon
LEAD CABLE LENGTH	Standard 300mm (Rotor/Stator)
DIELECTRIC STRENGTH	500VAC @ 50Hz, 60s

#### MECHANICAL SPECIFICATIONS

WORKING LIFE	Common Quality Level: 3 Million Revs
	Industrial Quality Level: 10 Million Revs
ROTATING SPEED	Common Quality Level: 0-60 rpm
	Industrial Quality Level: 0-200 rpm
TEMPERATURE RANGE	-30°C to +80°C
OPERATING HUMIDITY	0-85% RH
CONTACT MATERIAL	Common Quality Level: Precious Metal
	Industrial Quality Level: Gold-Gold
HOUSING MATERIAL	Aluminium Alloy
TORQUE	Types PC1220, PC50xx, PC70xx and PC80xx: 0.1N.m; +0.03N.m/6 rings
	All other types: 0.5N.m; +0.02N.m/6 rings
PROTECTION GRADE	IP51 (higher or lower on request)

RX-PC12

Radial Cables



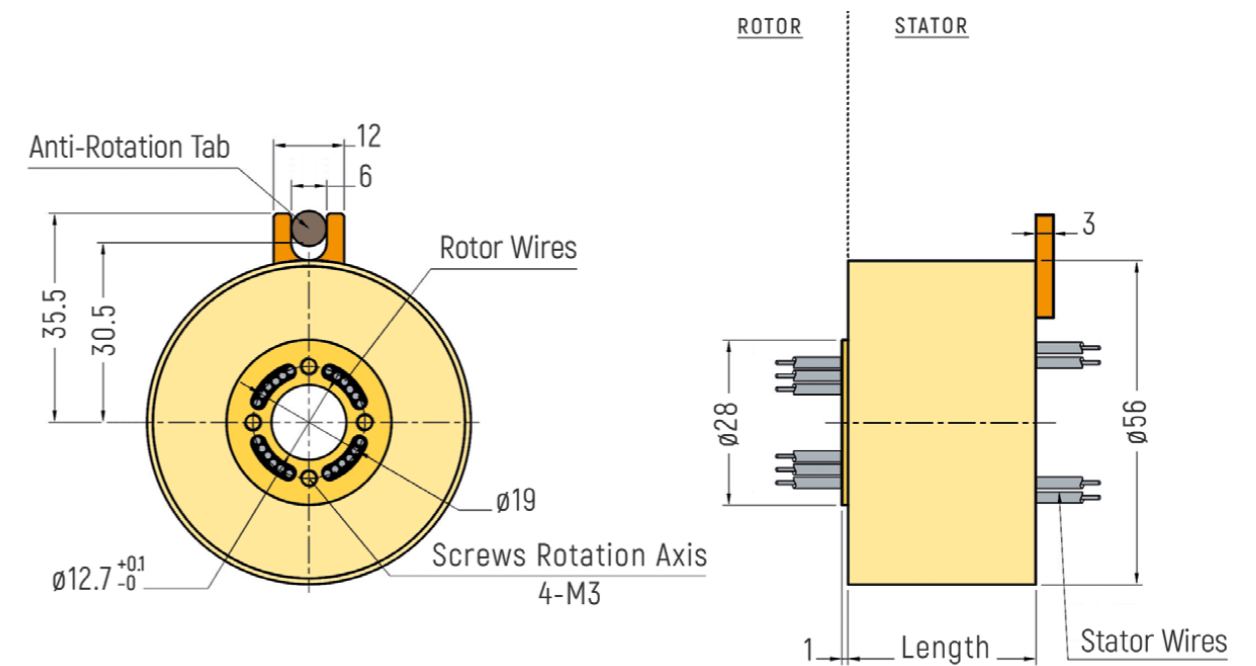
MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC1220-QS0-00002S	76	12.7	2	-	-
RX-PC1220-QS1-02000S	76	12.7	-	2	-
RX-PC1220-QS1-02002S	92	12.7	2	2	-
RX-PC1220-QS1-04000S	92	12.7	-	4	-
RX-PC1220-QS0-00006S	108	12.7	6	-	-
RX-PC1220-QS1-06000S	108	12.7	-	6	-
RX-PC1220-QS2-06000S	108	12.7	-	-	6
RX-PC1220-QS1-02004S	108	12.7	4	2	-
RX-PC1220-QS0-00012S	156	12.7	12	-	-
RX-PC1220-QS1-12000S	156	12.7	-	12	-
RX-PC1220-QS2-12000S	156	12.7	-	-	12

MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC1220-QS1-06006S	156	12.7	6	6	-
RX-PC1220-QS0-00006S	156	12.7	6	-	-
RX-PC1220-QS0-00018S	204	12.7	18	-	-
RX-PC1220-QS1-18000S	204	12.7	-	18	-
RX-PC1220-QS1-06012S	204	12.7	12	6	-
RX-PC1220-QS1-12006S	204	12.7	6	12	-
RX-PC1220-QS1-08010S	204	12.7	10	8	-
RX-PC1220-QS0-00024S	252	12.7	24	-	-
RX-PC1220-QS1-24000S	252	12.7	-	24	-
RX-PC1220-QS1-06018S	252	12.7	18	6	-
RX-PC1220-QS1-12012S	252	12.7	12	12	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

RX-PC12

Axial Cables



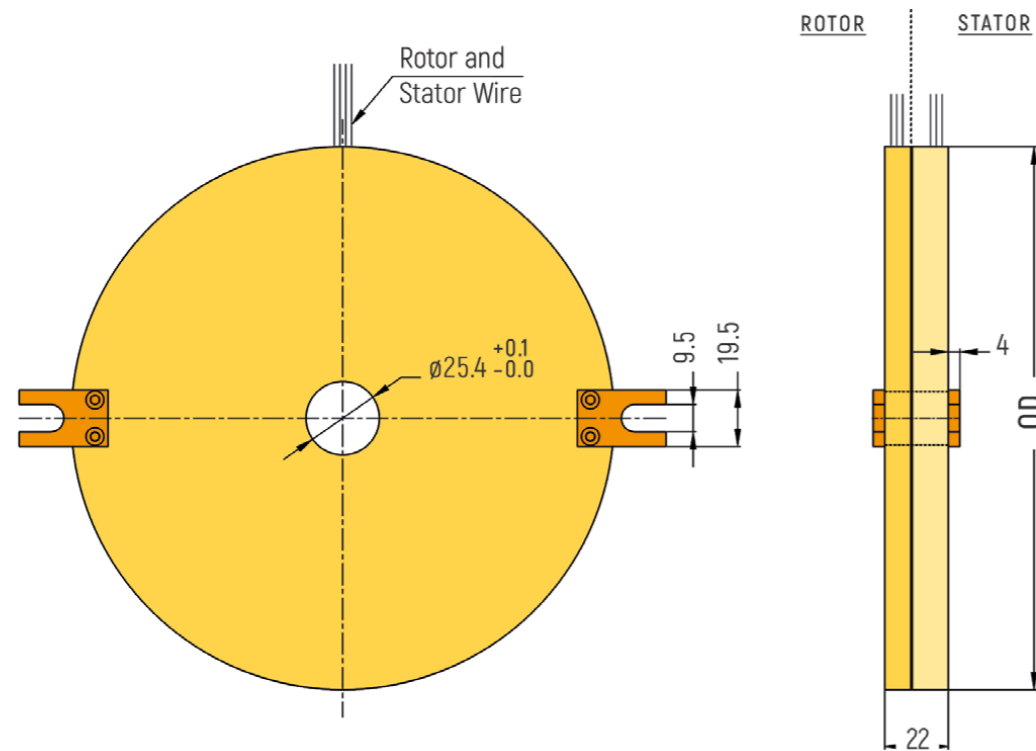
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC1215-QS0-00002S	15.8	2	-	-
RX-PC1215-QS1-02000S	15.8	-	2	-
RX-PC1221-QS1-02002S	21.4	2	2	-
RX-PC1221-QS1-04000S	21.4	-	4	-
RX-PC1227-QS0-00006S	27	6	-	-
RX-PC1227-QS1-06000S	27	-	6	6
RX-PC1227-QS0-00000S	27	-	-	-
RX-PC1227-QS1-02004S	27	4	2	-
RX-PC1243-QS0-00012S	43.8	12	-	-
RX-PC1243-QS1-12000S	43.8	-	12	12
RX-PC1243-QS0-00000S	43.8	-	-	-

MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC1243-QS1-06006S	43.8	6	6	6
RX-PC1243-QS0-00006S	43.8	6	-	-
RX-PC1260-QS0-00018S	60.6	18	-	-
RX-PC1260-QS1-18000S	60.6	-	18	-
RX-PC1260-QS1-06012S	60.6	12	6	-
RX-PC1260-QS1-12006S	60.6	6	12	-
RX-PC1260-QS1-08010S	60.6	10	8	-
RX-PC1277-QS0-00024S	77.4	24	-	-
RX-PC1277-QS1-24000S	77.4	-	24	-
RX-PC1277-QS1-06018S	77.4	18	6	-
RX-PC1277-QS1-12012S	77.4	12	12	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

RX-PC25

Radial Cables



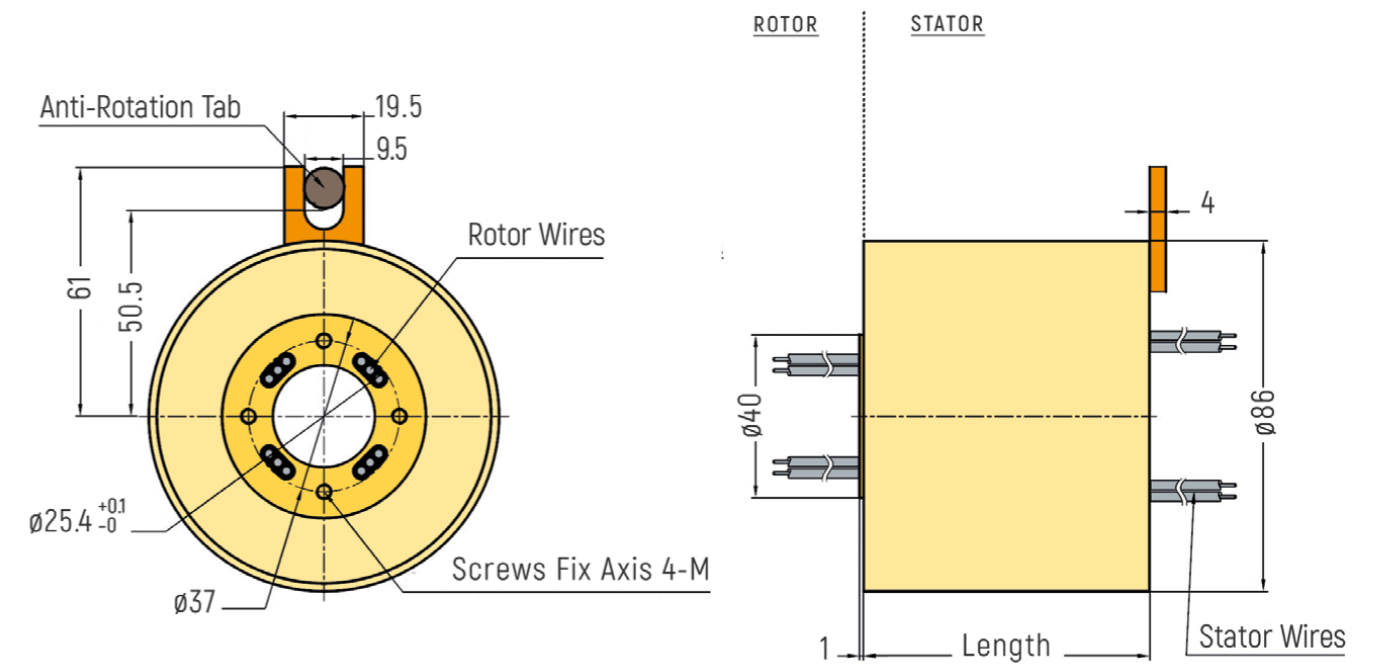
MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC2522-QS0-00002S	92	25.4	2	-	-
RX-PC2522-QS1-02000S	92	25.4	-	2	-
RX-PC2522-QS1-02002S	108	25.4	2	2	-
RX-PC2522-QS1-04000S	108	25.4	-	4	-
RX-PC2522-QS0-00006S	124	25.4	6	-	-
RX-PC2522-QS1-06000S	124	25.4	-	6	-
RX-PC2522-QS2-06000S	124	25.4	-	-	6
RX-PC2522-QS1-02004S	124	25.4	4	2	-
RX-PC2522-QS0-00012S	172	25.4	12	-	-
RX-PC2522-QS1-12000S	172	25.4	-	12	-
RX-PC2522-QS2-12000S	172	25.4	-	-	12
RX-PC2522-QS1-06006S	172	25.4	6	6	-

MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC2522-QS0-00006S	172	25.4	6	-	-
RX-PC2522-QS0-00018S	216	25.4	18	-	-
RX-PC2522-QS1-18000S	216	25.4	-	18	-
RX-PC2522-QS1-06012S	204	25.4	12	6	-
RX-PC2522-QS1-12006S	204	25.4	6	12	-
RX-PC2522-QS1-08010S	204	25.4	10	8	-
RX-PC2522-QS0-00024S	268	25.4	24	-	-
RX-PC2522-QS1-24000S	268	25.4	-	24	-
RX-PC2522-QS1-06018S	268	25.4	18	6	-
RX-PC2522-QS1-12012S	268	25.4	12	12	-
RX-PC2522-QS0-00026S	364	25.4	26	-	-
RX-PC2522-QS0-00048S	460	25.4	48	-	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

RX-PC25

Axial Cables



MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC2517-QS0-00002S	17.1	2	-	0
RX-PC2517-QS1-02000S	17.1	-	2	0
RX-PC2523-QS1-02002S	23.9	2	2	0
RX-PC2523-QS1-04000S	23.9	-	4	0
RX-PC2530-QS0-00006S	30.7	6	-	0
RX-PC2530-QS1-06000S	30.7	-	6	0
RX-PC2530-QS2-06000S	30.7	-	-	6
RX-PC2530-QS1-02004S	30.7	4	2	0
RX-PC2551-QS0-00012S	51.1	12	-	0
RX-PC2551-QS1-12000S	51.1	-	12	0
RX-PC2551-QS2-12000S	51.1	-	-	12

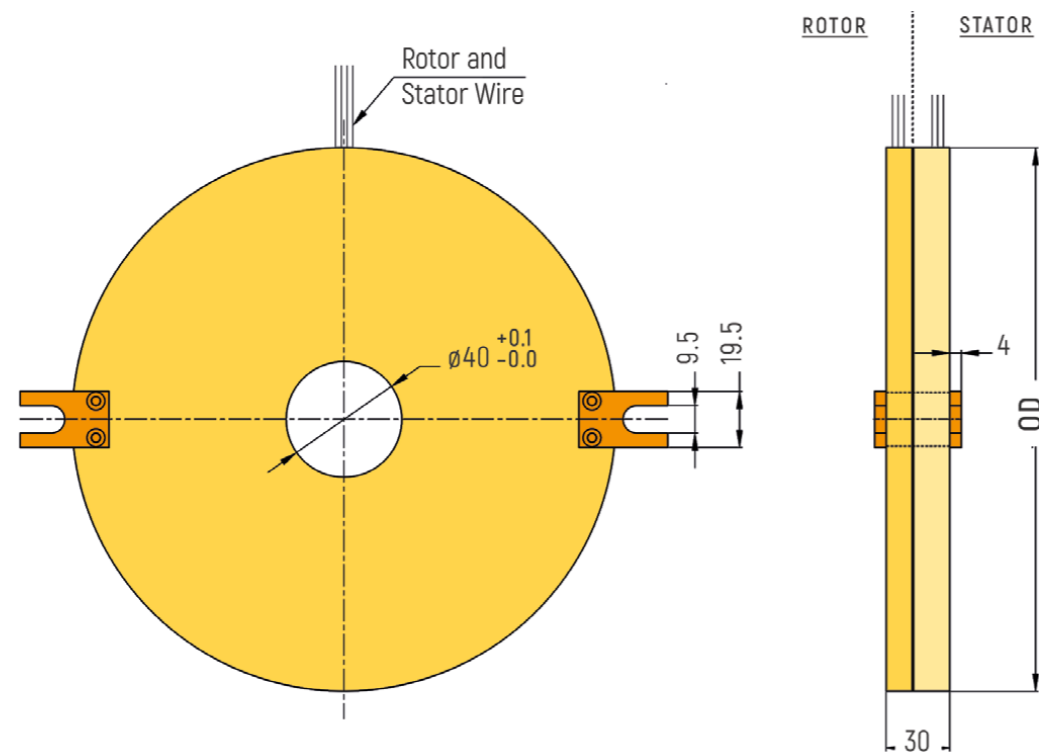
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC2551-QS1-06006S	51.1	6	6	0
RX-PC2551-QS2-06006S	51.1	6	-	6
RX-PC2571-QS0-00018S	71.5	18	-	0
RX-PC2571-QS1-18000S	71.5	-	18	0
RX-PC2571-QS1-06012S	71.5	12	6	0
RX-PC2571-QS1-12006S	71.5	6	12	0
RX-PC2571-QS1-08010S	71.5	10	8	0
RX-PC2591-QS0-00024S	91.9	24	-	0
RX-PC2591-QS1-24000S	91.9	-	24	0
RX-PC2591-QS1-06018S	91.9	18	6	0
RX-PC2591-QS1-12012S	91.9	12	12	0

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.



**RX-PC40**

Radial Cables



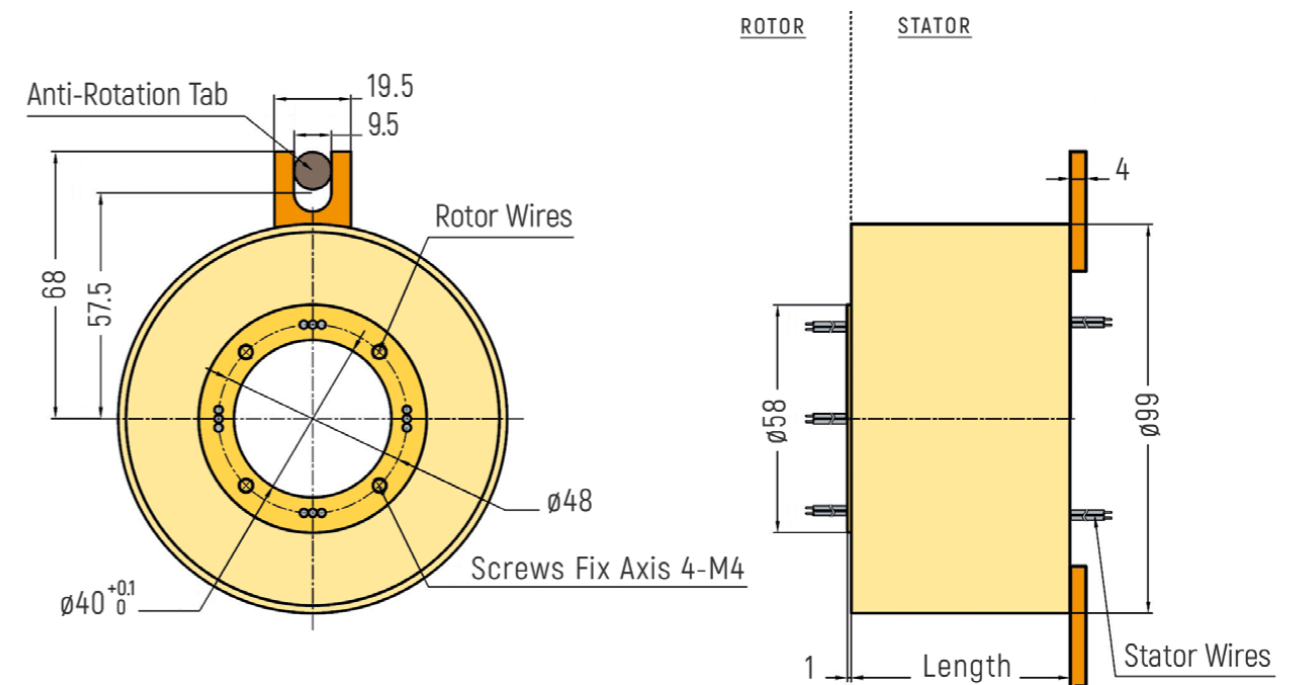
MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC4030-QS0-00002S	120	40	2	-	-
RX-PC4030-QS1-02000S	120	40	-	2	-
RX-PC4030-QS1-02002S	136	40	2	2	-
RX-PC4030-QS1-04000S	136	40	-	4	-
RX-PC4030-QS0-00006S	152	40	6	-	-
RX-PC4030-QS1-06000S	152	40	-	6	-
RX-PC4030-QS2-06000S	152	40	-	-	6
RX-PC4030-QS1-02004S	152	40	4	2	-
RX-PC4030-QS0-00012S	200	40	12	-	-
RX-PC4030-QS1-12000S	200	40	-	12	-

MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC4030-QS2-12000S	200	40	-	-	12
RX-PC4030-QS1-06006S	200	40	6	6	-
RX-PC4030-QS0-00006S	200	40	6	-	-
RX-PC4030-QS0-00018S	248	40	18	-	-
RX-PC4030-QS1-18000S	248	40	-	18	-
RX-PC4030-QS1-06012S	248	40	12	6	-
RX-PC4030-QS1-12006S	248	40	6	12	-
RX-PC4030-QS1-08010S	248	40	10	8	-
RX-PC4030-QS0-00024S	296	40	24	-	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

**RX-PC40**

Axial Cables



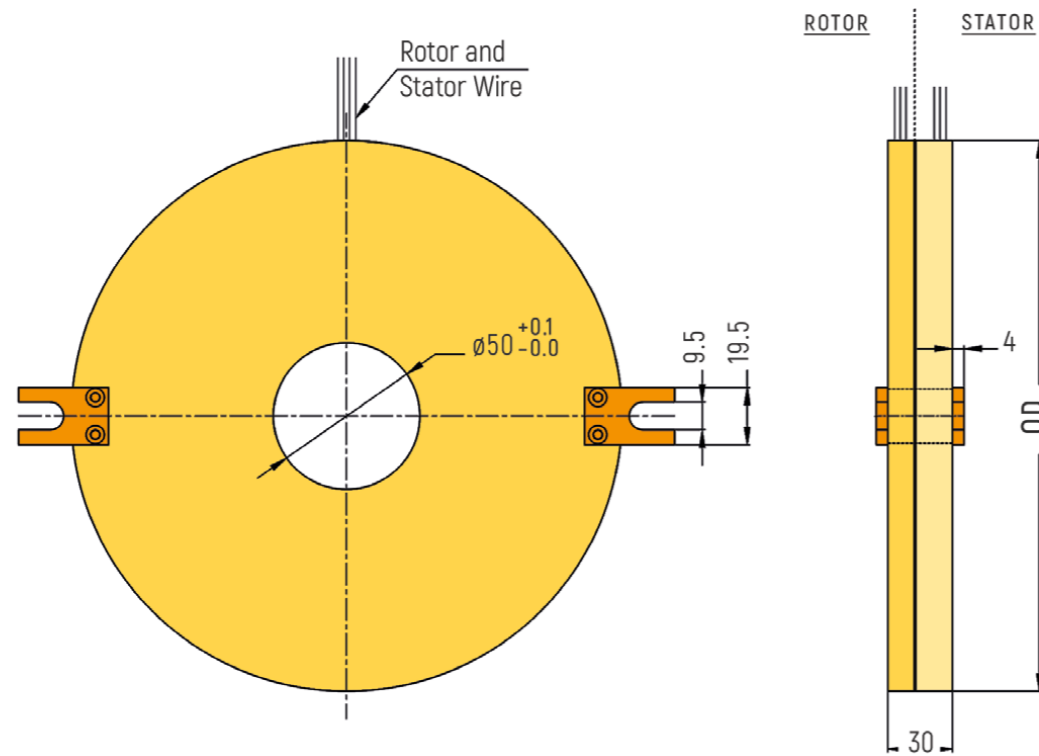
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC4017-QS0-00002S	17.1	2	-	0
RX-PC4017-QS1-02000S	17.1	-	2	0
RX-PC4023-QS1-02002S	23.9	2	2	0
RX-PC4023-QS1-04000S	23.9	-	4	0
RX-PC4030-QS0-00006S	30.7	6	-	0
RX-PC4030-QS1-06000S	30.7	-	6	0
RX-PC4030-QS2-06000S	30.7	-	-	6
RX-PC4030-QS1-02004S	30.7	4	2	0
RX-PC4051-QS0-00012S	51.1	12	-	0
RX-PC4051-QS1-12000S	51.1	-	12	0
RX-PC4051-QS2-12000S	51.1	-	-	12

MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC4051-QS1-06006S	51.1	6	6	0
RX-PC4051-QS2-06006S	51.1	6	-	6
RX-PC4071-QS0-00018S	71.5	18	-	0
RX-PC4071-QS1-18000S	71.5	-	18	0
RX-PC4071-QS1-06012S	71.5	12	6	0
RX-PC4071-QS1-12006S	71.5	6	12	0
RX-PC4071-QS1-08010S	71.5	10	8	0
RX-PC4091-QS0-00024S	91.9	24	-	0
RX-PC4091-QS1-24000S	91.9	-	24	0
RX-PC4091-QS1-06018S	91.9	18	6	0
RX-PC4091-QS1-12012S	91.9	12	12	0

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

**RX-PC50**

Radial Cables



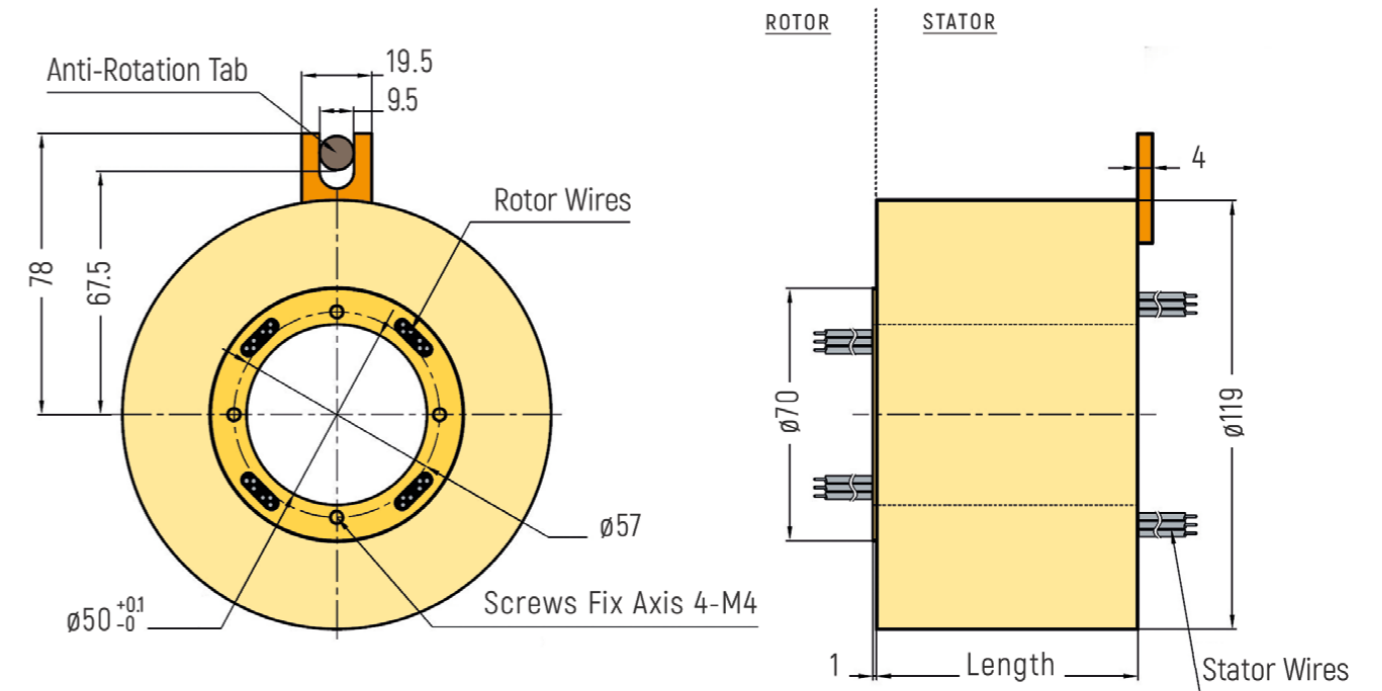
MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC5030-QS0-00002S	140	50	2	-	-
RX-PC5030-QS1-02000S	140	50	-	2	-
RX-PC5030-QS1-02002S	156	50	2	2	-
RX-PC5030-QS1-04000S	156	50	-	4	-
RX-PC5030-QS0-00006S	172	50	6	-	-
RX-PC5030-QS1-06000S	172	50	-	6	6
RX-PC5030-QS0-00000S	172	50	-	-	-
RX-PC5030-QS1-02004S	172	50	4	2	-
RX-PC5030-QS0-00012S	220	50	12	-	-
RX-PC5030-QS1-12000S	220	50	-	12	12
RX-PC5030-QS0-00000S	220	50	-	-	-
RX-PC5030-QS1-06006S	220	50	6	6	-

MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC5030-QS0-00006S	220	50	6	-	-
RX-PC5030-QS0-00018S	268	50	18	-	-
RX-PC5030-QS1-18000S	268	50	-	18	-
RX-PC5030-QS1-06012S	268	50	12	6	-
RX-PC5030-QS1-12006S	268	50	6	12	-
RX-PC5030-QS1-08010S	268	50	10	8	-
RX-PC5030-QS0-00024S	316	50	24	-	-
RX-PC5030-QS1-24000S	316	50	-	24	-
RX-PC5030-QS1-06018S	316	50	18	6	-
RX-PC5030-QS1-12012S	316	50	12	12	-
RX-PC5030-QS0-00036S	412	50	36	-	-
RX-PC5030-QS0-00048S	508	50	48	-	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

**RX-PC50**

Axial Cables



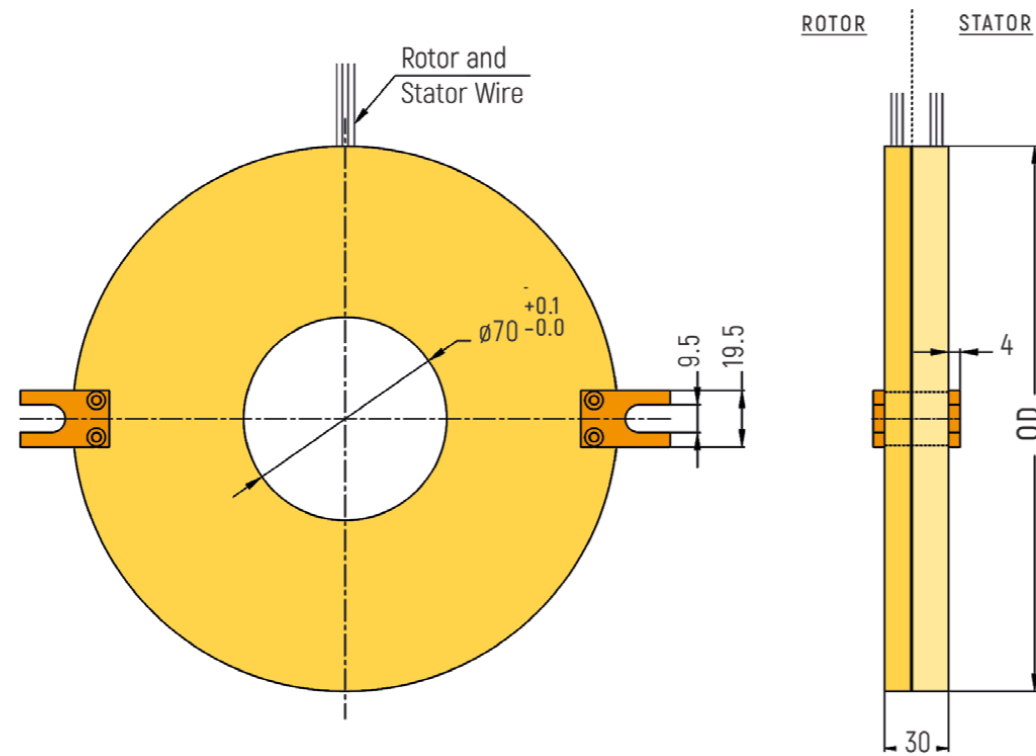
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC5017-QS0-00002S	17.1	2	-	-
RX-PC5017-QS1-02000S	17.1	-	2	-
RX-PC5023-QS1-02002S	23.9	2	2	-
RX-PC5023-QS1-04000S	23.9	-	4	-
RX-PC5030-QS0-00006S	30.7	6	-	-
RX-PC5030-QS1-06000S	30.7	-	6	-
RX-PC5030-QS2-06000S	30.7	-	-	6
RX-PC5030-QS1-02004S	30.7	4	2	-
RX-PC5051-QS0-00012S	51.1	12	-	-
RX-PC5051-QS1-12000S	51.1	-	12	-
RX-PC5051-QS2-12000S	51.1	-	-	12

MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC5051-QS1-06006S	51.1	6	6	-
RX-PC5051-QS2-06006S	51.1	6	-	6
RX-PC5071-QS0-00018S	71.5	18	-	-
RX-PC5071-QS1-18000S	71.5	-	18	-
RX-PC5071-QS1-06012S	71.5	12	6	-
RX-PC5071-QS1-12006S	71.5	6	12	-
RX-PC5071-QS1-08010S	71.5	10	8	-
RX-PC5091-QS0-00024S	91.9	24	-	-
RX-PC5091-QS1-24000S	91.9	-	24	-
RX-PC5091-QS1-06018S	91.9	18	6	-
RX-PC5091-QS1-12012S	91.9	12	12	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

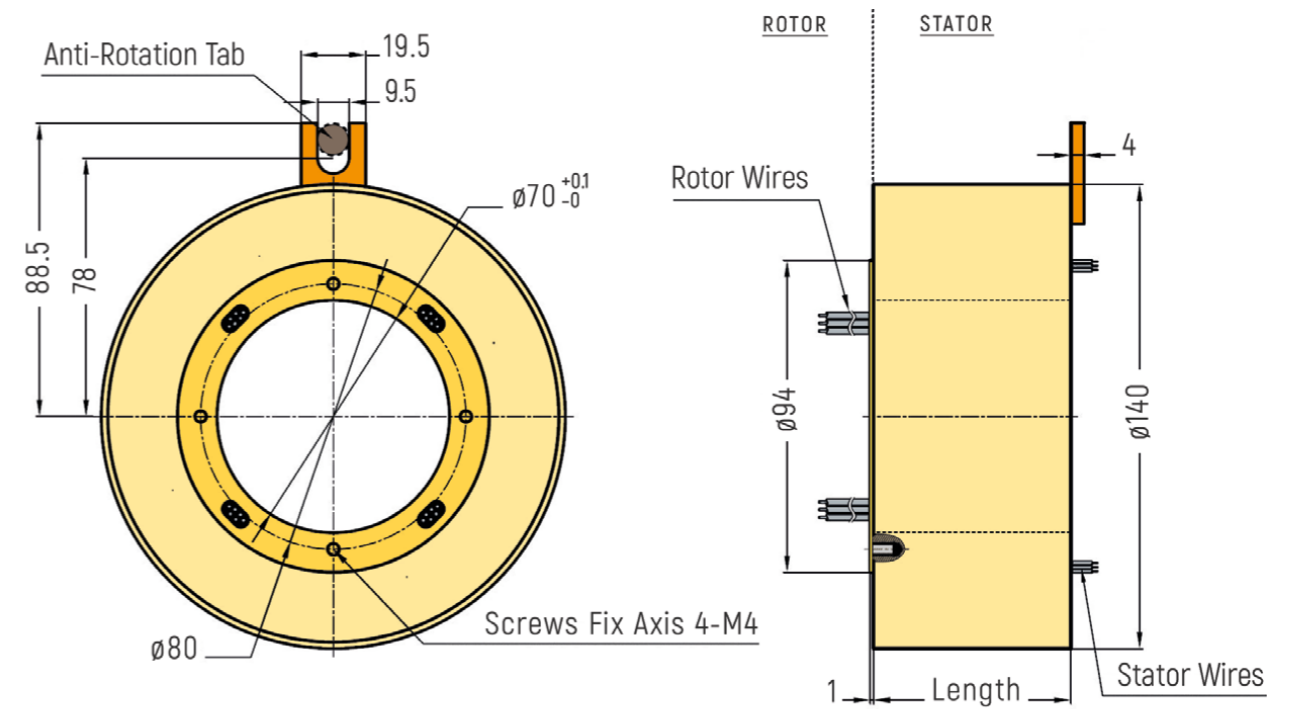
**RX-PC70**

Radial Cables



**RX-PC70**

Axial Cables



MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC7030-QS0-00002S	152	70	2	-	-
RX-PC7030-QS1-02000S	152	70	-	2	-
RX-PC7030-QS1-02002S	168	70	2	2	-
RX-PC7030-QS1-04000S	168	70	-	4	-
RX-PC7030-QS0-00006S	184	70	6	-	-
RX-PC7030-QS1-06000S	184	70	-	6	-
RX-PC7030-QS2-06000S	184	70	-	-	6
RX-PC7030-QS1-02004S	184	70	4	2	-
RX-PC7030-QS0-00012S	232	70	12	-	-
RX-PC7030-QS1-12000S	232	70	-	12	-
RX-PC7030-QS2-12000S	232	70	-	-	12
RX-PC7030-QS1-06006S	232	70	6	6	-

MODEL	OD (mm)	ID (mm)	NUMBER OF CIRCUITS		
			Signal 5A	10A	20A
RX-PC7030-QS2-06006S	232	70	6	-	6
RX-PC7030-QS0-00018S	280	70	18	-	-
RX-PC7030-QS1-18000S	280	70	-	18	-
RX-PC7030-QS1-06012S	280	70	12	6	-
RX-PC7030-QS1-12006S	280	70	6	12	-
RX-PC7030-QS1-08010S	280	70	10	8	-
RX-PC7030-QS0-00024S	328	70	24	-	-
RX-PC7030-QS1-24000S	328	70	-	24	-
RX-PC7030-QS1-06018S	328	70	18	6	-
RX-PC7030-QS1-12012S	328	70	12	12	-
RX-PC7030-QS0-00036S	424	70	36	-	-
RX-PC7030-QS0-00048S	520	70	48	-	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

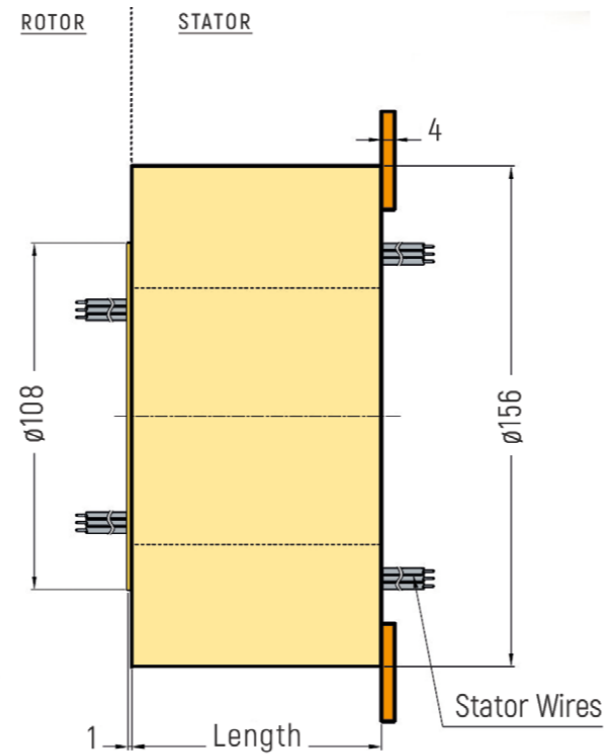
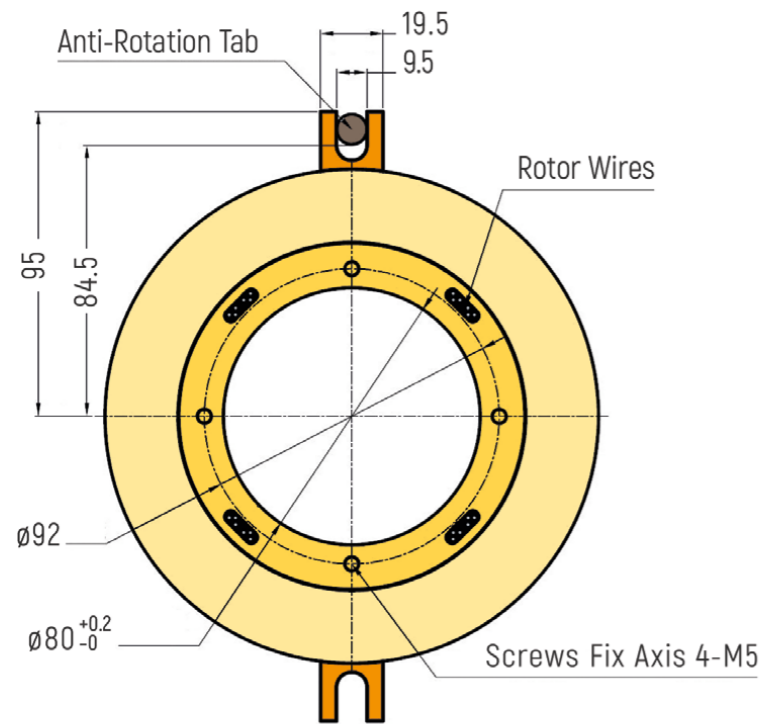
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC7017-QS0-00002S	17.5	2	-	-
RX-PC7017-QS1-02000S	17.5	-	2	-
RX-PC7023-QS1-02002S	23.5	2	2	-
RX-PC7023-QS1-04000S	23.5	-	4	-
RX-PC7029-QS0-00006S	29.5	6	-	-
RX-PC7029-QS1-06000S	29.5	-	6	-
RX-PC7029-QS2-06000S	29.5	-	-	6
RX-PC7029-QS1-02004S	29.5	4	2	-
RX-PC7047-QS0-00012S	47.5	12	-	-
RX-PC7047-QS1-12000S	47.5	-	12	-
RX-PC7047-QS2-12000S	47.5	-	-	12

MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC7047-QS1-06006S	47.5	6	6	-
RX-PC7047-QS2-06006S	47.5	6	-	6
RX-PC7065-QS0-00018S	65.5	18	-	-
RX-PC7065-QS1-18000S	65.5	-	18	-
RX-PC7065-QS1-06012S	65.5	12	6	-
RX-PC7065-QS1-12006S	65.5	6	12	-
RX-PC7065-QS1-08010S	65.5	10	8	-
RX-PC7083-QS0-00024S	83.5	24	-	-
RX-PC7083-QS1-24000S	83.5	-	24	-
RX-PC7083-QS1-06018S	83.5	18	6	-
RX-PC7083-QS1-12012S	83.5	12	12	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.  
 ↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

**RX-PC80**

Axial Cables



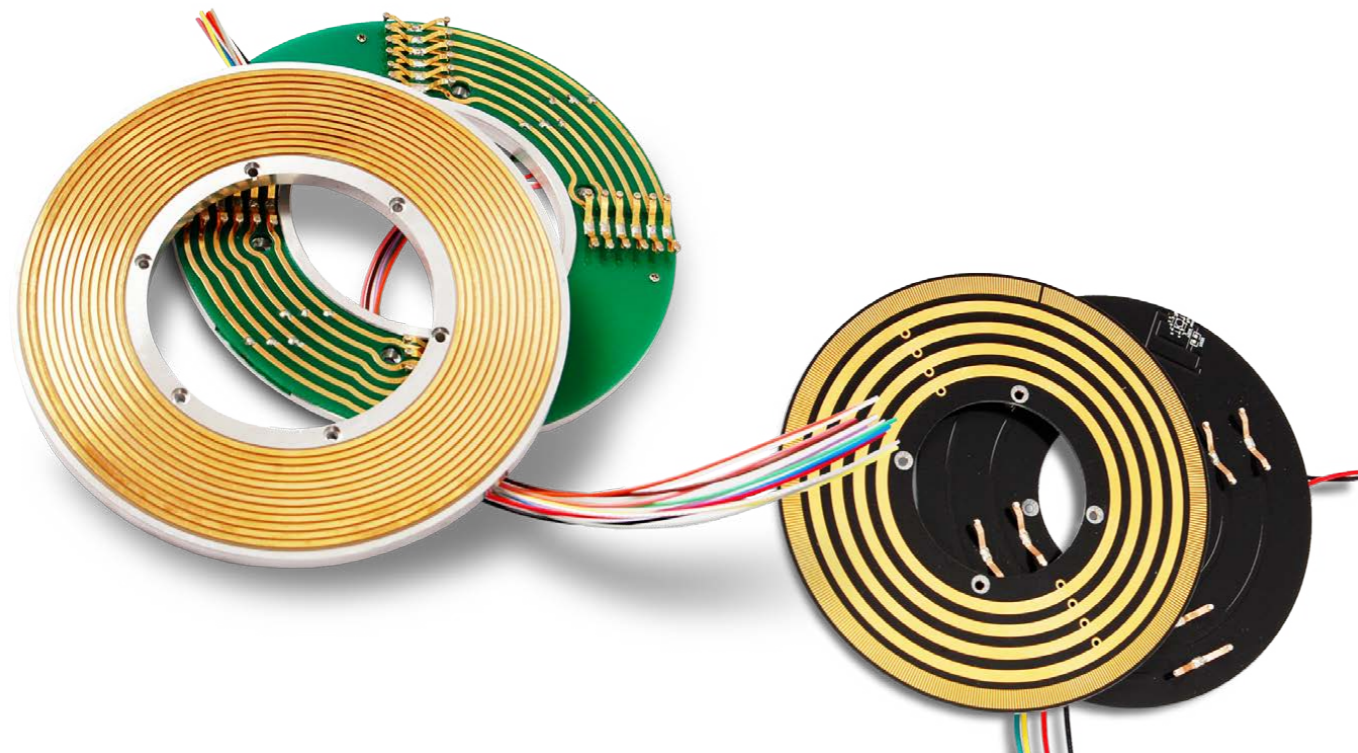
MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC8018-QS0-00002S	18.2	2	-	-
RX-PC8018-QS1-02000S	18.2	-	2	-
RX-PC8024-QS1-02002S	24.6	2	2	-
RX-PC8024-QS1-04000S	24.6	-	4	-
RX-PC8031-QS0-00006S	31	6	-	-
RX-PC8031-QS1-06000S	31	-	6	-
RX-PC8031-QS2-06000S	31	-	-	6
RX-PC8031-QS1-02004S	31	4	2	-
RX-PC8050-QS0-00012S	50.2	12	-	-
RX-PC8050-QS1-12000S	50.2	-	12	-
RX-PC8050-QS2-12000S	50.2	-	-	12

MODEL	LENGTH (mm)	NUMBER OF CIRCUITS		
		Signal 5A	10A	20A
RX-PC8050-QS1-06006S	50.2	6	6	-
RX-PC8050-QS2-06006S	50.2	6	-	6
RX-PC8069-QS0-00018S	69.4	18	-	-
RX-PC8069-QS1-18000S	69.4	-	18	-
RX-PC8069-QS1-06012S	69.4	12	6	-
RX-PC8069-QS1-12006S	69.4	6	12	-
RX-PC8069-QS1-08010S	69.4	10	8	-
RX-PC8088-QS0-00024S	88.6	24	-	-
RX-PC8088-QS1-24000S	88.6	-	24	-
RX-PC8088-QS1-06018S	88.6	18	6	-
RX-PC8088-QS1-12012S	88.6	12	12	-

↳ N channels 10A rings parallel can be used as 1 channel N\*10A current. Example: 2 rings 10A each can be used parallel for transmission of 20A.

↳ Through bore size, total circuits and current can be customized, please contact customer service for more details.

## RX-PC Series, without Housing



Super Flat



Signal & Power



Long Life



Pancake slip rings are designed for space-critical applications regarding height dimensions. As the flat shape is similar to a platter, they are also named flat slip rings and platter slip rings.

The pancake slip rings without housing are similar to the separate slip rings and consist of a rotor unit and a brush holder. The rotor unit and the brush holder are round-shaped printed circuit boards with 3, 6 or 12 rings. With only 6mm height the pancake slip rings can be integrated in very space critical applications.

We offer standardized & modularized design and fully customizable products according to the special requirements of customers in different applications.

If you have specific customized requirements, please feel free to consult us in order to create the most suitable recommendation for your specification.

### ADVANTAGES

- + No Housing
- + Flat Design
- + Rotor & Stator Unit separated
- + 360° Continuous Rotation
- + Power & Signal Transmission
- + Small & Compact Design
- + Light Weight
- + Easy Installation

### MAIN APPLICATIONS

- > Servo Motors
- > Production Machines
- > Medical Equipment
- > Cranes
- > Hose & Cable Reels
- > Measuring Instruments
- > Factory Automation

### PRODUCT CODE

RX	-	AA	BB	CC	-	DD	E	-	FF	GGG	S
		1	2	3		4	5		6	7	8

Example: RX-PC2506-QS1-02010S

(1) Pancake Slip Ring with (2) Inner Diameter 25.4mm, (3) Thickness 6mm, (4) Common Quality Version, (5) Power transmission 10A, (6) 2 rings for power transmission, (7) 10 rings for signal transmission, (8) Standard Version

1	Series	PC - Pancake Slip Rings	5	Power Level	0 - No Power transmission 1 - Power transmission 10A 2 - Power transmission 20A
2	Inner Diameter	From 12.7mm to 50mm (see drawings for details)	6	Number of Power Circuits	From 2 rings to 12 rings
3	Thickness	6mm	7	Number of Signal Circuits	From 2 rings to 12 rings
4	Quality Level	QS - Common Quality Version QI - Industrial Quality Version (see specifications for details)	8	Version	S - Standard C - Customized

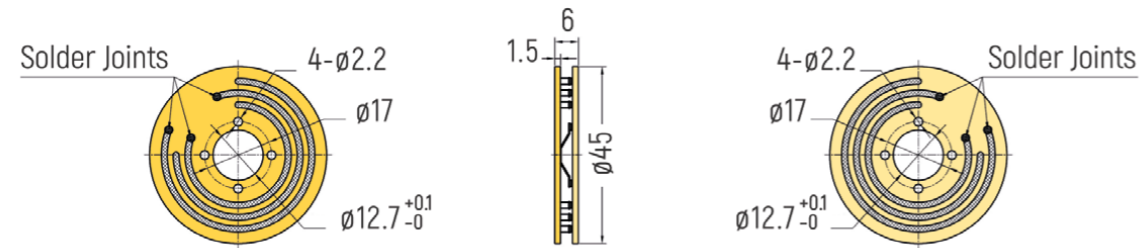
### SPECIFICATIONS

#### PANCAKE SLIP RING SPECIFICATIONS

NUMBER OF CIRCUITS	2-12 for power transmission	2-12 for signal transmission
<b>ELECTRICAL SPECIFICATIONS</b>		
CURRENT RATING	Power transmission circuits:	10A
	Signal transmission circuits:	5A
VOLTAGE RATING	Power transmission circuits:	440VAC/DC
	Signal transmission circuits:	240VAC/DC
ELECTRICAL NOISE	max 10mΩ	
INSULATION RESISTANCE	≥1000 MΩ @ 500 VDC	
LEAD CABLE SIZE	Power transmission circuits:	AWG16 Teflon
	Signal transmission circuits:	AWG22 Teflon
LEAD CABLE LENGTH	Standard 300mm (Rotor/Stator)	
DIELECTRIC STRENGTH	500VAC @ 50Hz, 60s	
<b>MECHANICAL SPECIFICATIONS</b>		
WORKING LIFE	Common Quality Level:	5 Million Revs
	Industrial Quality Level:	20 Million Revs
ROTATING SPEED	Common Quality Level:	0-100 rpm
	Industrial Quality Level:	0-300 rpm
TEMPERATURE RANGE	-30°C to +80°C	
OPERATING HUMIDITY	0-85% RH	
CONTACT MATERIAL	Common Quality Level:	Precious Metal
	Industrial Quality Level:	Gold-Gold
HOUSING MATERIAL	Aluminium Alloy	
TORQUE	Types PC1206:	0.1N.m; +0.03N.m/6 rings
	All other types:	0.5N.m;+0.03N.m/6 rings
PROTECTION DEGREE	IP51 (higher or lower on request)	

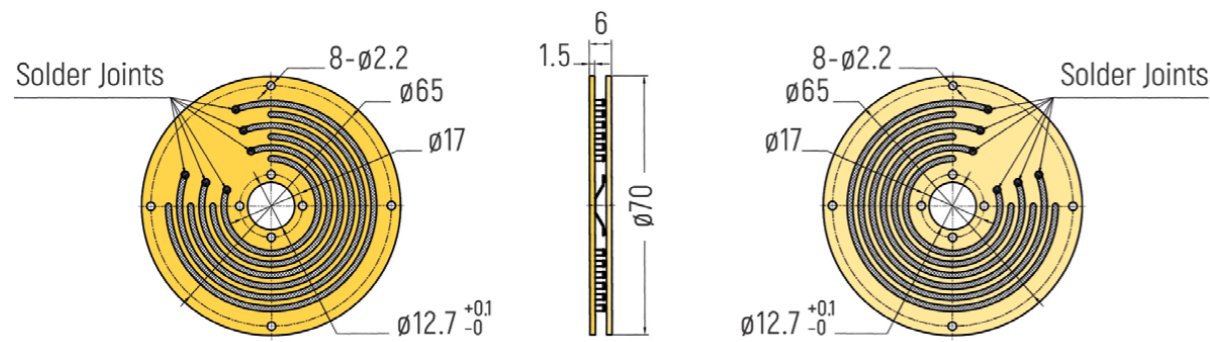
**RF-PC1206**

3 Rings



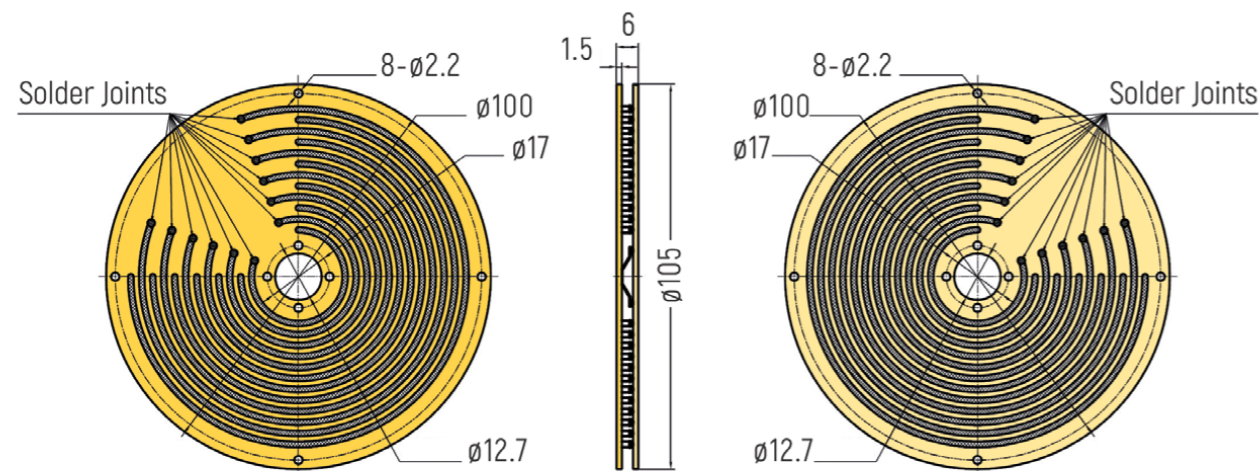
**RF-PC1206**

6 Rings



**RF-PC1206**

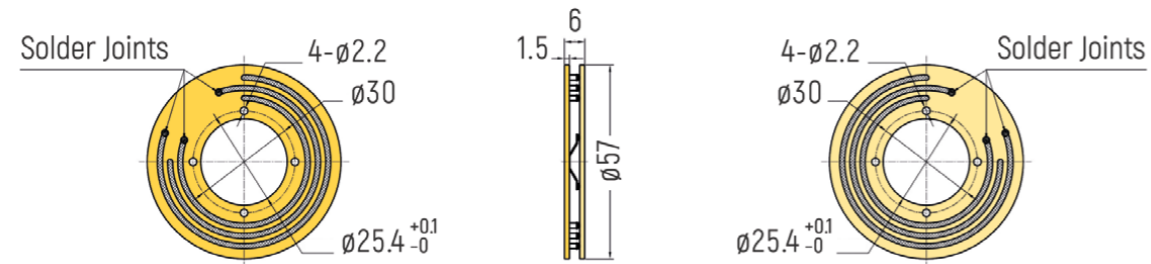
12 Rings



MODEL	NUMBER OF CIRCUITS		
	Power 10A	Signal / 5A	Total Rings
RX-PC1206-QS1-03000S	3	-	3
RX-PC1206-QS1-02004S	2	4	6
RX-PC1206-QS0-00006S	-	6	6
RX-PC1206-QS1-12000S	12	-	12
RX-PC1206-QS1-04008S	4	8	12
RX-PC1206-QS1-08004S	8	4	12
RX-PC1206-QS0-00003S	-	3	3
RX-PC1206-QS1-04002S	4	2	6
RX-PC1206-QS1-06000S	6	-	6
RX-PC1206-QS1-02010S	2	10	12
RX-PC1206-QS1-06006S	6	6	12
RX-PC1206-QS0-00012S	-	12	12

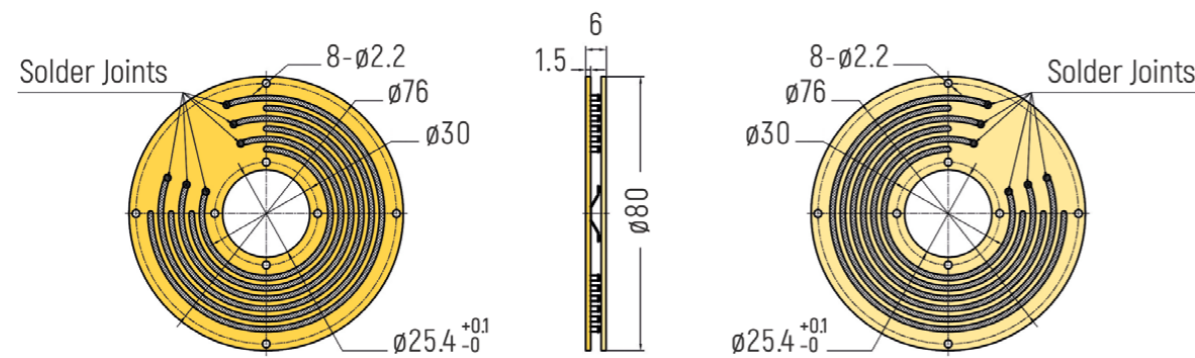
**RF-PC2506**

3 Rings



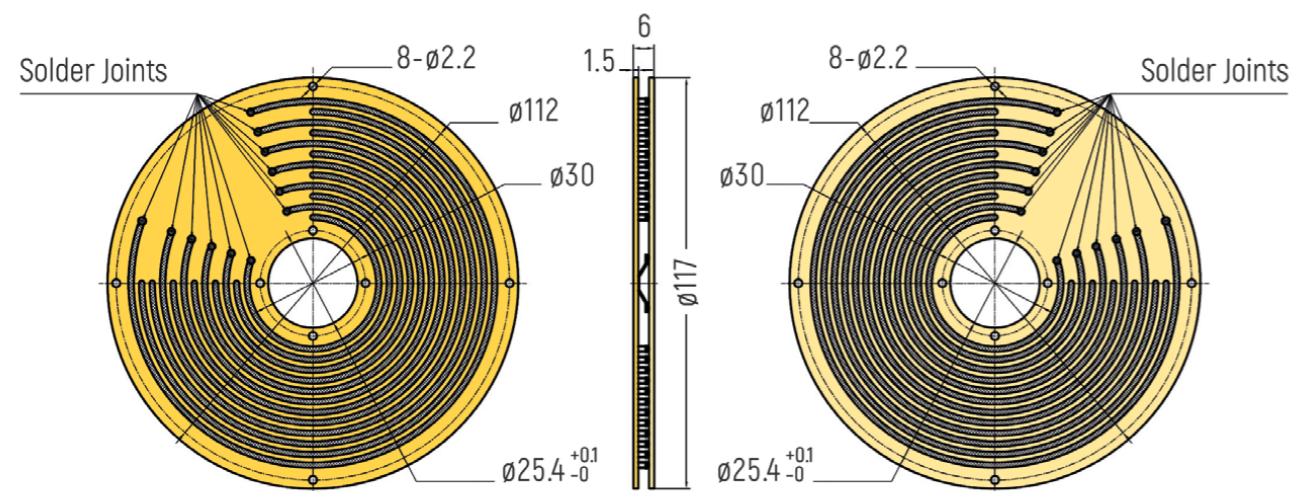
**RF-PC2506**

6 Rings



**RF-PC2506**

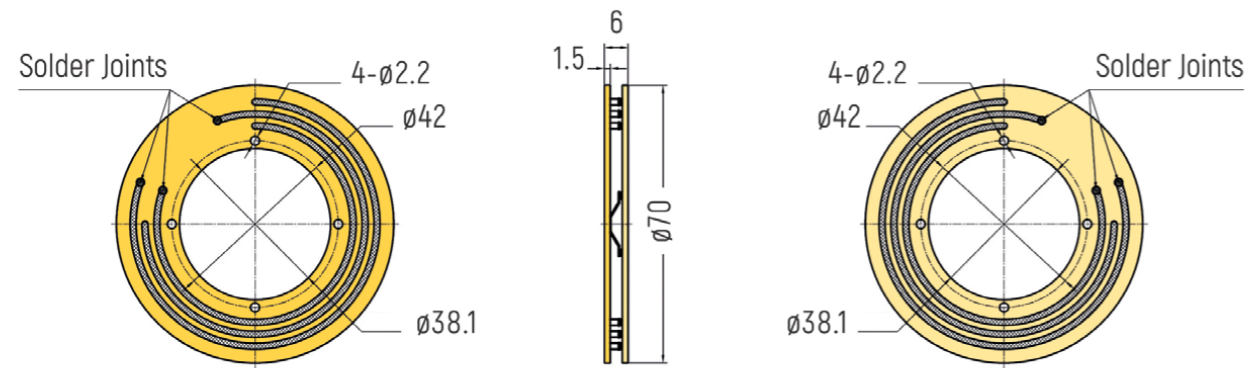
12 Rings



MODEL	NUMBER OF CIRCUITS		
	Power 10A	Signal / 5A	Total Rings
RX-PC2506-QS1-03000S	3	-	3
RX-PC2506-QS1-02004S	2	4	6
RX-PC2506-QS0-00006S	-	6	6
RX-PC2506-QS1-12000S	12	-	12
RX-PC2506-QS1-04008S	4	8	12
RX-PC2506-QS1-08004S	8	4	12
RX-PC2506-QS0-00003S	-	3	3
RX-PC2506-QS1-04002S	4	2	6
RX-PC2506-QS1-06000S	6	-	6
RX-PC2506-QS1-02010S	2	10	12
RX-PC2506-QS1-06006S	6	6	12
RX-PC2506-QS0-00012S	-	12	12

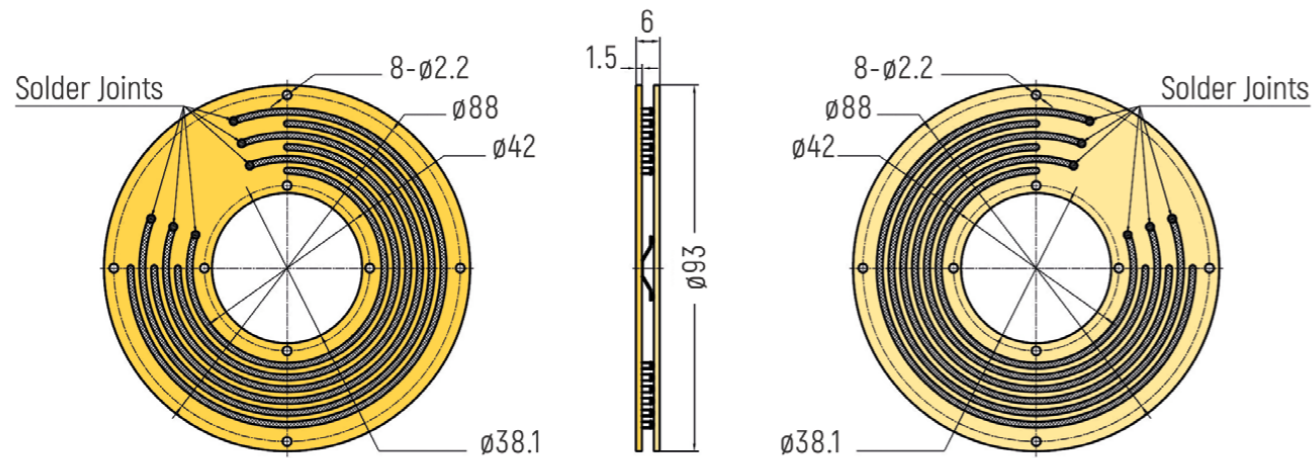
**RF-PC3806**

3 Rings



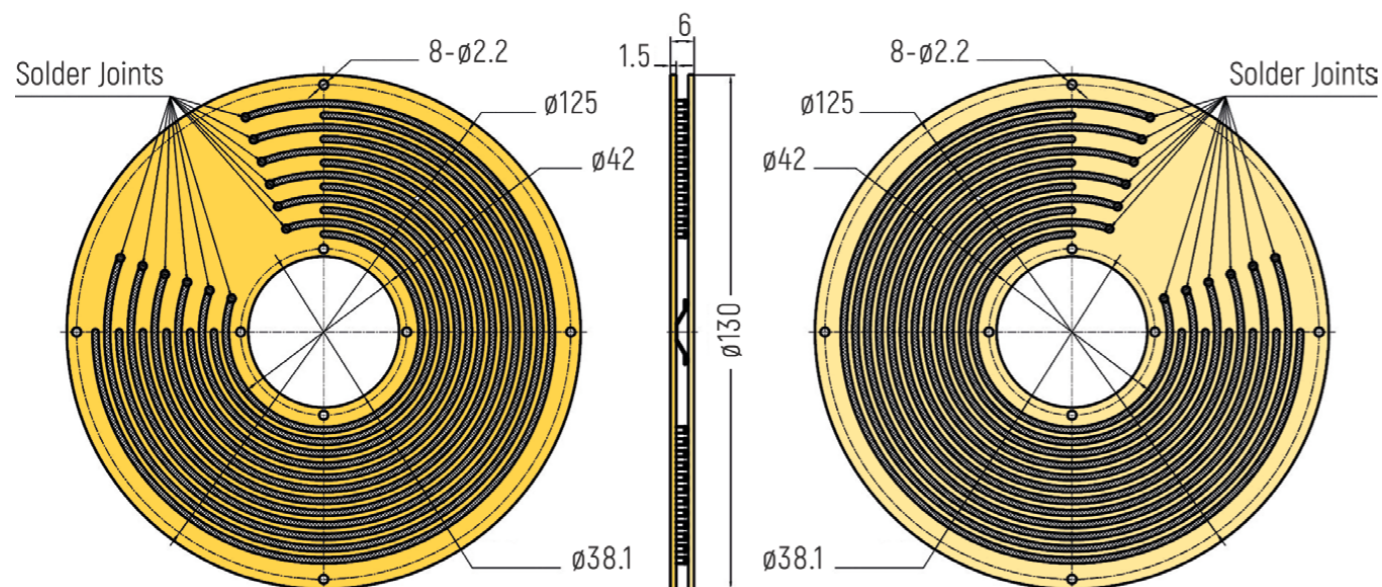
**RF-PC3806**

6 Rings



**RF-PC3806**

12 Rings

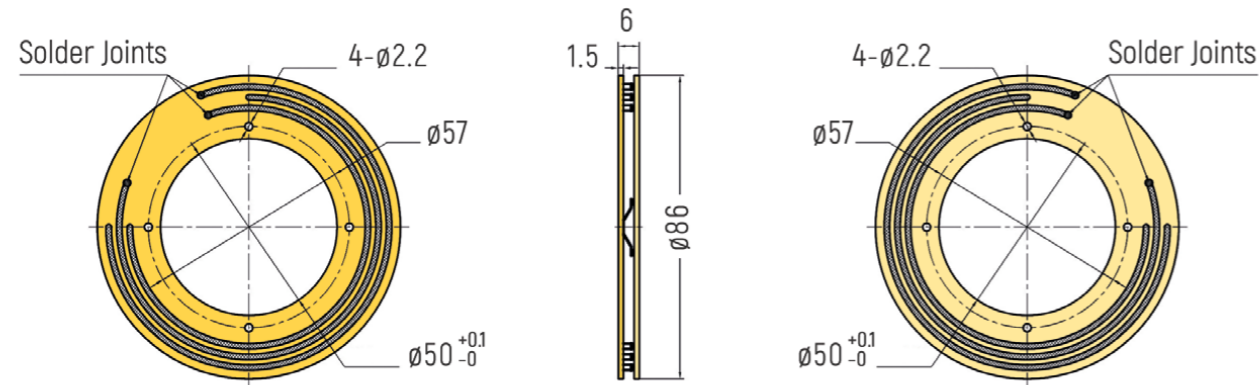


MODEL	NUMBER OF CIRCUITS		
	Power 10A	Signal / 5A	Total Rings
RX-PC3806-QS1-03000S	3	-	3
RX-PC3806-QS1-02004S	2	4	6
RX-PC3806-QS0-00006S	-	6	6
RX-PC3806-QS1-12000S	12	-	12
RX-PC3806-QS1-04008S	4	8	12
RX-PC3806-QS1-08004S	8	4	12
RX-PC3806-QS0-00003S	-	3	3
RX-PC3806-QS1-04002S	4	2	6
RX-PC3806-QS1-06000S	6	-	6
RX-PC3806-QS1-02010S	2	10	12
RX-PC3806-QS1-06006S	6	6	12
RX-PC3806-QS0-00012S	-	12	12



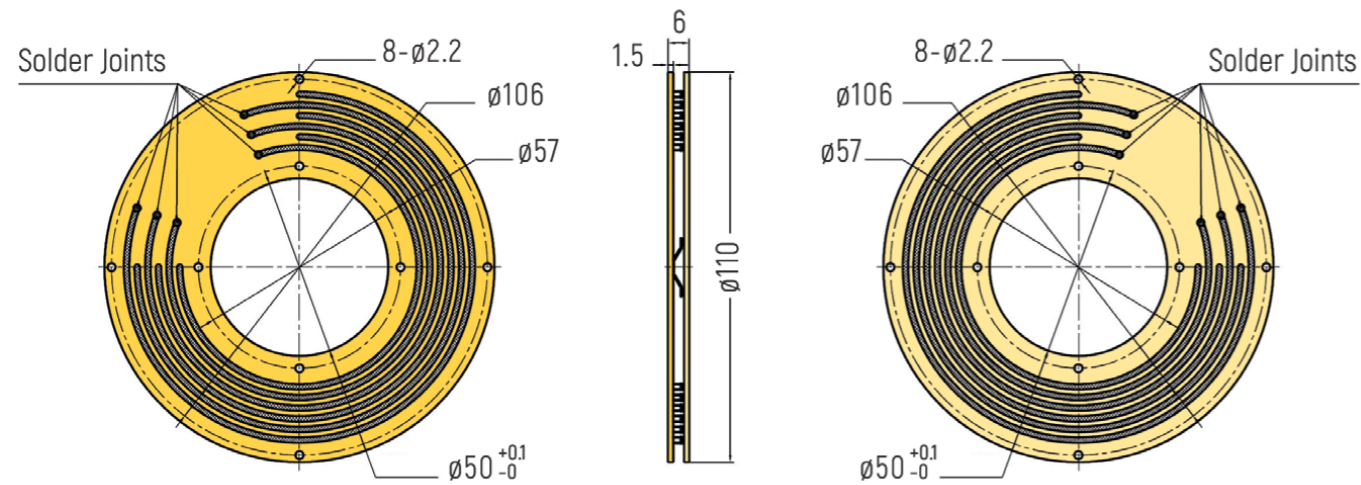
**RF-PC5006**

3 Rings



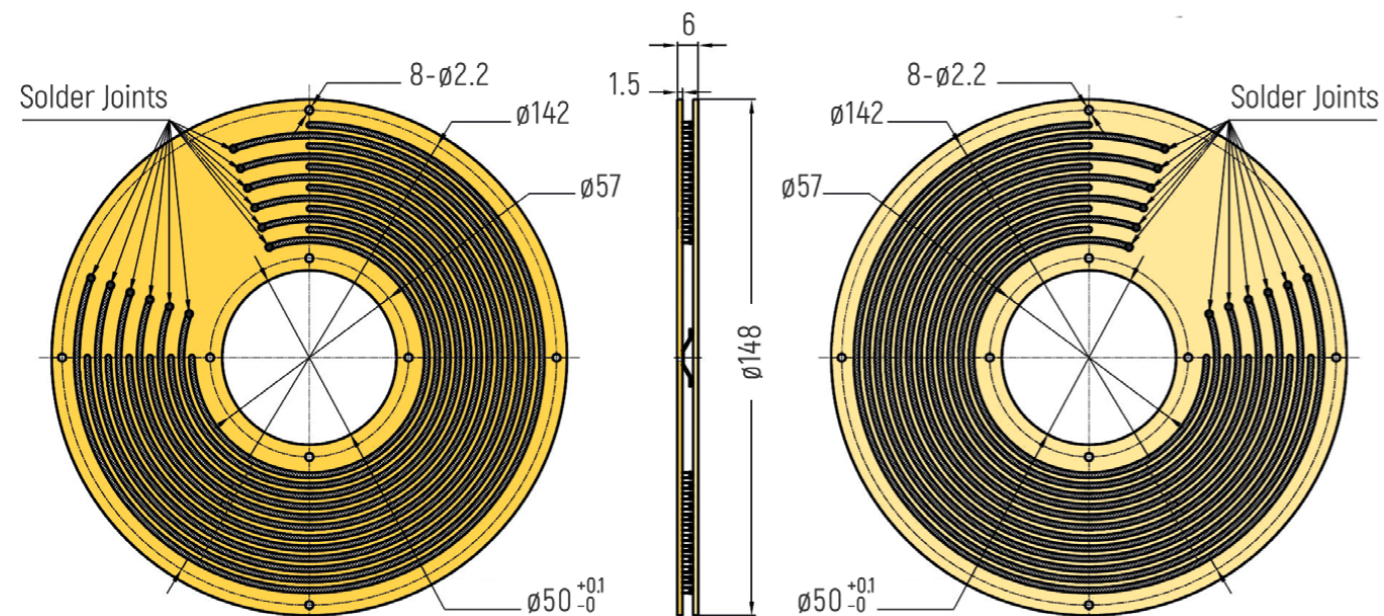
**RF-PC5006**

6 Rings



**RF-PC5006**

12 Rings



MODEL	NUMBER OF CIRCUITS		
	Power 10A	Signal / 5A	Total Rings
RX-PC5006-QS1-03000S	3	-	3
RX-PC5006-QS1-02004S	2	4	6
RX-PC5006-QS0-00006S	-	6	6
RX-PC5006-QS1-12000S	12	-	12
RX-PC5006-QS1-04008S	4	8	12
RX-PC5006-QS1-08004S	8	4	12
RX-PC5006-QS0-00003S	-	3	3
RX-PC5006-QS1-04002S	4	2	6
RX-PC5006-QS1-06000S	6	-	6
RX-PC5006-QS1-02010S	2	10	12
RX-PC5006-QS1-06006S	6	6	12
RX-PC5006-QS0-00012S	-	12	12

# Customized Slip Rings



## HYBRID SLIP RING FOR WATER, POWER AND SIGNAL TRANSMISSION

- 12 x 10A power, 1 x gigabit Ethernet, 1 x water leadthrough
- Harting connector for power lines
- Housing material aluminium



## MEDIUM SIZE SLIP RING WITH MASSIVE FLANGE

- Axial cable outtake rotor, radial cable outtake stator
- Steel housing in customized color
- Special cable protection sleeve

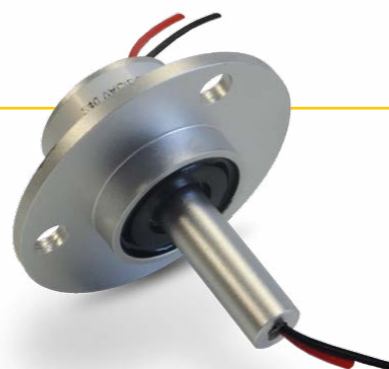
## LARGE SLIP RING FOR MARITIME APPLICATIONS

- Outer diameter 14 meters, inner diameter 0.7 meters
- Housing material steel, color similar to maritime vessel
- Inspection porthole



## MINIATURE METAL HOUSING WITH ELONGATED ROTOR SHAPE

- Special rotor design acc. to customer specification
- 4 x 2A signal rings
- Protection degree IP65



## MEDIUM SIZE SLIP RING WITH MASSIVE FLANGE

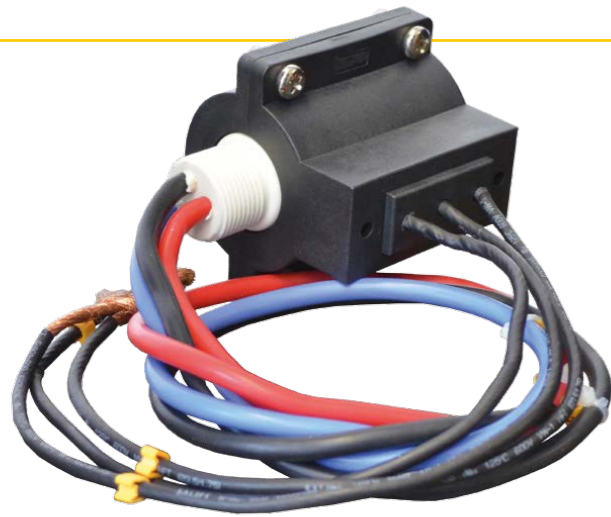
- Aluminium rotor flange with customized boreholes
- Flange thickness 13mm
- Protection degree IP65



## HYBRID MEDIUM SIZE HOLLOW-SHAFT SLIP RING

- 10 x 10A signal transmission + EtherCat signals
- Massive housing for heavy-duty-applications
- Special flange and double-anti-rotation-tabs



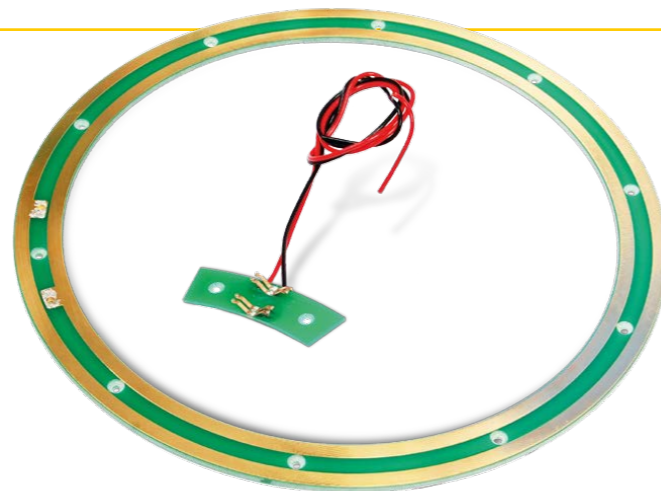


**MINIATURE POWER SLIP RING WITH CUSTOMIZED HOUSING**

- 3 x 63A power transmission on minimum space
- Special plastic housing
- Cable color code according to customer requirement

**PANCAKE SLIP RING WITHOUT HOUSING**

- Special diameter according to customer machine
- 2 rings for power transmission
- Brushholder with customized fixing holes and cable



**HYBRID MEDIUM SIZE SLIP RING WITH FIBER OPTIC AND COAX TRANSMISSION**

- Customized housing shape with special rotor design
- Gearwheel teeth shape integrated in rotor design
- FORJ Fiber Optic + COAX transmission



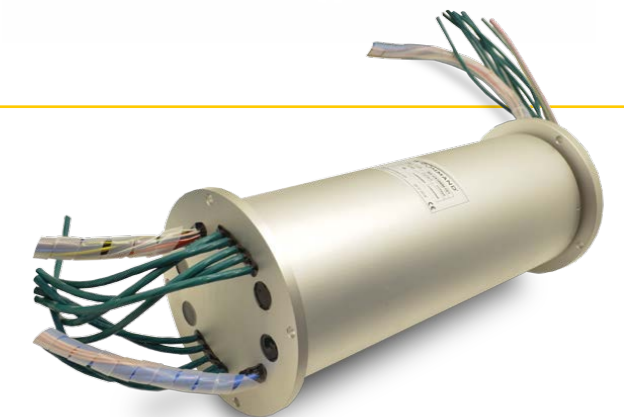
**MINIATURE SLIP RING WITH CUSTOMIZED FLANGE**

- 10 x 2A signal transmission
- Flange position and shape customized
- Cable color code according to customer requirement



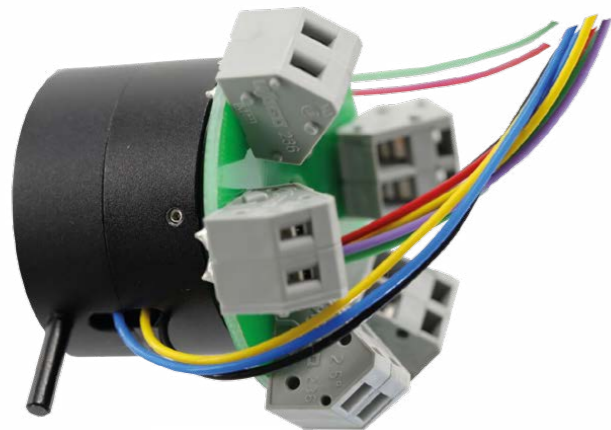
**LARGE METAL HOUSING WITH POWER / DATA TRANSMISSION**

- Dimensions housing according to customer specification
- 86 Rings (63A, 32A, 16A, HD-SDI, EtherCat, Analogue)
- Special CAT7E data-cable with 10 meter length



**MINIATURE SIZE SLIP RING WAGO CONNECTORS ON PCB**

- 16 x 2A signal transmission
- Customized PCB with WAGO connectors for cable connection
- Special housing design with anti-rotation-bar



**MINIATURE SLIP RING WITH 128 RINGS**

- Aluminium housing with rotor flange
- 128 signal rings for data transmission
- Protection degree IP65





**SLIP RING WITH INTEGRATED CONNECTORS**

- Customized fixation boreholes
- Customized connectors and cable with connectors
- Double anti-rotation-tab on stator side

**MEDIUM SIZE HOLLOW-SHAFT SLIP RING WITH CONNECTORS**

- 4 x customized connectors for signal transmission
- Aluminium housing with 150mm free inner diameter
- Housing without flange, axial cable outtakes



**HYBRID MEDIUM SIZE SLIP RING WITH DOUBLE COAX LINE AND POWER TRANSMISSION**

- Customized metal housing without flange
- 2 x COAX lines + several power rings
- Special cable protection sleeve and cable fixation

**HYBRID MEDIUM SIZE SLIP RING WITH FIBER OPTIC AND POWER LINES**

- Customized aluminium housing without flange
- FORJ Fiber Optic + power transmission
- Stainless steel rotor with cable protection sleeve



**HYBRID MINIATURE SLIP RING FOR VIRTUAL REALITY APPLICATIONS**

- Plastic housing with customized flange
- Power and data transmission by USB and HDMI
- Connectors on rotor and stator side for easy usage







## B-COMMAND GMBH

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