




# PRODUCT CATALOGUE


# SLIP RINGS

## Standard & Custom Offerings

*One stop shop for all our slip ring requirements at most economical prices and least delivery times*

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# About Us

**Reckers Automation**, the earliest professional manufacturer of precision slip rings and joysticks, was established in the year of 1996, based out of New Delhi with global presence in Canada and USA with total 200+ employees. At present, Reckers Automation is the professional slip ring manufacturer and has more than 50 types of patented products which fill the gap in our domestic market. We have established extensive and long-term cooperation with many domestic research institutes, and own a skilled management team, advanced technology, first-class production & inspection equipments, as well as a strict quality control system.

Our slip rings are widely adopted in civil and military fields ranging from CCTV security, industrial automation, electric power generation, measurement instruments, medial equipments to building construction. Besides the power & signal combined slip rings, we also supply multicircuits, high voltage, high speed, high frequency rotary joints and Hydraulic/ pneumatic/ encoder hybrid slip rings.

**Reckers Automation** has obtained certificates of CE, RoHS, MSDS, ISO 9001:2015 and ISO14001:2015 etc. Our products are supplied to more than ten states in India. We also have a plethora of customers overseas, exporting products to more than 50 countries.



# What do we offer?

Slip ring is very important component that can solve the 360 degrees continuous rotating , and get electricity to a continuously rotating part of assembly, rotate without limits. Slip rings are used in electromechanical device including rotating table, surveillance systems like radars, Medical machines like microscope and support arm lamps, renewable energy sources like wind turbines, automation equipment and so on.



## Types of Slip Rings in our Portfolio

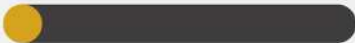
- Capsule Slip ring
- Through Bore Slip ring
- Miniature Slip ring
- Pin slip ring
- Ethernet Slip ring
- Wind turbine slip ring
- Customised slip ring
- HD SDI Slip ring
- Electrical Slip ring

*We may already have it designed (standard products), or we will modify a design that meets your exact requirements (custom products). In many cases, the specifications in the catalog may be customized, including the bore size, circuit number, higher current/voltage, flange, lead wire length, shielding, connectors, higher speed, IP68, military grade, higher temperature, and mixed with pneumatic/hydraulic capability.*

# What separates us from the competition?

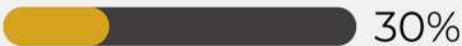
## Our USPs

### TIMELINE



*We offer a short delivery period of 5 weeks from the date of receipt of the order*

### COST



*All our products are priced at least 30% lower than global reputed manufacturers, primarily because of lower costs overseas & economies of scale*

### CUSTOM PRODUCTS & SEAMLESS INTEGRATION



*Our bespoke product supply is tailor made as per your requirements and integrates with your existing portfolio. We deliver 100% customized products as per the part numbers and exact specifications that best fit your needs.*

## Our Certifications





# Capsule Slip Ring



## Waterproof Capsule Slip Ring

Continuous transmission of signal and data under 360° rotation freely  
Waterproof  
Less noise, long life  
Low torque, smooth rotation  
Electrical noise  $< 0.01 \Omega$   
Small compact construction



## Standard Capsule Slip Ring

Continuous transmission of signal and data under 360° rotation freely  
Less noise, long life  
Low torque, smooth rotation  
Electrical noise  $< 0.01 \Omega$  Small compact construction



## Long Life Capsule Slip Ring

Long life Capsule Slip ring  
we use mulit fiber brush instead 1 single brush, the coating thickness is 3 micro than general 1micro.  
Long lifetime to 20 Million rotation  
Less noise  
Low torque, smooth rotation  
Electrical noise  $< 0.01 \Omega$   
Small compact construction



## AL Housing Capsule Slip Ring

Continuous transmission of signal and data under 360° rotation freely  
Less noise, long life  
Low torque, smooth rotation  
Electrical noise  $< 0.01 \Omega$   
Small compact construction

# Through Bore Slip Ring

Our through-bore slip rings feature our fiber brush technology which offers several advantages over conventional slip ring technology including multiple points of contact force per fiber and low contact wear rates. In addition, fiber brushes do not require lubrication and produce virtually no wear debris.



## Waterproof Through Bore Slip Ring

Water proof IP65 slip ring designed by AL or SS material. O ring sealed on stator side between the flange and cover. We also use special silicon rubber seals on rotor side to prevent water leakage inside slip ring



## Miniature Through Bore Slip Ring

This miniature through bore slip ring is perfect to fit with a small shaft to drive its rotation. In some applications, customer need a small through bore. the friction force is not so high, so our SRH0317, SRH0422, SRH1235 meet customer requests.



## Standard Through Bore Slip Ring

Continuous transmission of signal and data under 360° rotation freely  
Free of maintenance or lubricating oil.  
Low torque, smooth rotation  
Electrical noise < 0.01 Ω  
Low contact pressure, low noise, low contact wear  
Standardized & modularized design;  
Customized solutions also available



## Ethernet Through Bore Slip Ring

Advanced fiber brush technology, free of maintenance or lubricating oil.  
Low torque, smooth rotation  
Electrical noise < 0.01 Ω  
Multi contact points in each circuit, low contact pressure, low noise, low contact wear  
Standardized & modularized design;  
Customized solutions also available  
Ethernet circuits with transmission speeds upto 100Mbps, 1Giga data.



## High Speed Through Bore Slip Ring

High speed slip rings demand very high accurate tolerances of the rotors, bearing space, high request of the concentricity of the rotors with other related parts. We have special shape and size of the rings to ensure low rate of the wear out.



## Through Bore Slip Ring with Flange

The installation of this slip ring is different according to customer equipment interface. We design and install many solutions of the slip rings. We can offer the customer drive shaft pass the holes to drive the rotor, use a anti-pin to stop the stator. another way is to mount the slip ring using a flange on rotor or stator, driving the rotation through a motor.



# Electrical Slip Ring

Electrical Slip ring is a kind of electric rotary joint that can be used to any electromechanical devices which need unrestrained continuous rotation while transferring powers and signal from the stator side to rotor side. Many applications need special requests of the slip rings. Reckers has a rich experience and strong ability to make customized solutions. We have solutions for special mounting flanges, special wire exit, combined hydraulic and air rotary joints, FORJ, RF connectors special cables etc.



## Pneumatic Hydraulic Electrical Slip Ring

- Pneumatic hydraulic rotary joint with electric slip rings
- Circuit number from 2-350
- The air channel 1-8
- The liquid channel 1-8
- pressure of the air or liquid 1Bar or 2bar
- Operation speed: 250rpm, 800rpm, 1500rpm, 3000rpm
- Circuit current: 2A, 5A, 10A, 15A, 20A, 50A, 100A, 200A, up to 400A.



## High Speed Electrical Slip Ring

- High speed up to 2000rpm
- High accurate of the rotor tolerance
- High accurate of the rotor concentricity
- Special shape of the rings
- Gold to Gold contact
- SS material Structure
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- life cycles up to the speed and application
- Protection grade IP 51, IP54, IP 65



## Pancake Electrical Slip Ring

- Hollow shaft type to mount with a solid drive shaft
- Circuit number 2-36
- Operation speed: the door rotation very slow, it around 50rpm
- Circuit current: 2A for sensor and 20A for drive power
- twisted pairs for CAN bus signal
- Flexible, color-coded, silver-plated, Teflon® insulated lead wire
- the free leads protected by shrink tube
- Contact material silver to silver
- wire leads length is 2m
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Long life cycles up to 30 million cycles



## Optical Electrical Slip Ring

- Power and FORJ combined to one unit
- Princetel high quality FORJ manufactured in USA
- Single model and multi model
- Light wave length 1310-1550 nanometer
- 1-8 channels for fiber rotary joint
- Low insert loss and return loss
- The fiber with jackets
- Other features are same as power slip ring circuits



# Wind Turbine Slip Ring

Reckers Automation has developed superior fiber brush technology that has an extensive lifetime of over 100 million revolutions. This technology does not require lubricants and is characterized by low wear generation for minimal maintenance. The temperature range and the packaging of this product also matches the harsh conditions required by this industry. Our solutions are designed to help you to increase availability of your wind turbine and reduce your maintenance costs, while ensuring high performance.



## Electrical Excitation Wind Turbine Slip Ring

- Out diameter 120mm, 140mm, 155mm, 190mm, 203mm
- Circuit number from 2-50
- Operation speed: standard up to 50rpm
- Circuit current: 10A for signals and 50A, 80A, 100A, 200A for power
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring
- Standard housing is AL material
- Flexible, color-coded, silver-plated, Teflon® insulated lead wires, lapp cable
- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Long life cycles up to 80 million cycles
- Protection grade IP 65



## Small Wind Turbine Slip Ring

- Precious metal materials, wear-resistant, long life
- Full closed structure
- Low torque, smooth rotation
- The overall style is easy to install
- Protection: IP5



## Through Bore Wind Turbine Slip Ring

- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Protection grade IP 65
- Ethernet circuits can transmission 100Mbps, 1Giga data.
- Exit connectors instead of free leads.
- Special design to fit the customer hydraulic union
- Heater available inside the slip ring



## MW Wind Turbine Slip Ring

- Out diameter 120mm, 140mm, 155mm, 190mm, 203mm
- Circuit number from 2-50
- Operation speed: standard up to 50rpm
- Circuit current: 10A for signals and 50A, 80A, 100A, 200A for power
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring
- Flexible, color-coded, silver-plated, Teflon® insulated lead wires, lapp cable
- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Long life cycles up to 80 million cycles
- Protection grade IP 65
- Ethernet circuits can transmission 100Mbps, 1Giga data.
- Slip ring with encoder



## Heating and Deicing Wind Turbine Slip Ring

- Low temperature to -40°C to +80°C
- Breakdown 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- life expanded to 80 million cycles
- Protection grade IP65
- Ethernet circuits transfer 1Giga bits
- Incremental encoder installed on the rotor small shaft
- Heating connectors mounted on terminal box

- No flying leads
- Special design to fit the customer hydraulic union
- Out diameter 190mm
- Circuit number from 2-50
- Operation speed: 50rpm
- Circuit current: 10A for signals and 50A, 80A, 100A for power
- Flexible, color-coded, silver-plated, Teflon® insulated lead wires, lapp cable
- Contact material silver to silver coating



# Military Customized Slip Ring

## What is unique about our offerings?

Reckers's slip rings are widely used in Military areas, we offer solutions for all type of electrical power, electrical signals and data buses, optical signals, gaseous and liquid media and combinations of these transmission technologies, which deliver stable performance and long lifetime. These solutions can fully meet the needs of military equipments in different application areas, such as high protection, high and low temperature, anti vibration, impact resistance, resistance to high pressure and other requirements.

- Through bore size 3mm to 500mm
- Circuit number from 2-350
- Operation speed: standard up to 250rpm
- Circuit current: 2A, 5A, 10A, 15A, 20A, 50A, 100A, 200A, up to 400A.
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring
- Standard housing is ABS material up to bore size 60mm, AL housing offered the bore size bigger than 70mm
- Flexible, color-coded, silver-plated, Teflon® insulated lead wires
- Contact material silver to silver coating
- Standard wire leads length is 500mm
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Long life cycles up to 80 million cycles
- Protection grade IP 51, IP54, IP 65
- Ethernet circuits can transmission 100Mbps, 1Giga data.
- Cable gland exit





# Medical Customized Slip Ring

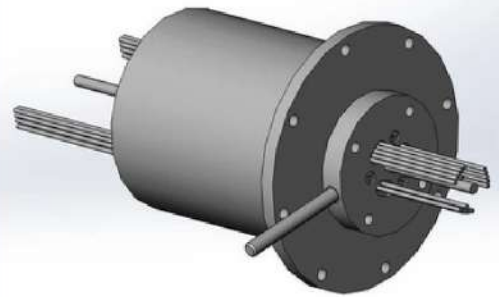
## Application

Medical Computed Tomography (CT) scanners transmit image data from a rotating x-ray detector to a stationary data processing computer, while retaining image clarity in the process. Due to the rigorous demands on their subsystems and components, CT scanners require reliable, high performance slip rings that can offer increasing data transmission and the reliability required in medical applications.

As a trusted supplier and manufacturer of OEM slip rings, Recker's manufacturing processes and technologies allow us to offer large, high volume slip rings with advanced features that are cost effective. In addition, our experienced engineers work with you every step of the way to ensure that your CT slip ring is tailored to your unique specifications and performance needs.

## Slip Ring Advantages for Medical Applications

- Low maintenance and long life
- High speed data communications
- Low audible noise for overall quieter mechanical system operation
- High circuit density and compact design



# CCTV Camera Customized Slip Ring

## Application

- Specially designed for CCTV or small rotating system, OD 22~25mm and Special fit for middle/small rotating system of transmitting low controlling signal.
- Standard, off-the-shelf, no through bore
- Circuits combination is available (such as video, control, sensor, power, Ethernet and so on)

## Features

- Continuous transmission of signal and data under 360° rotation freely
- Less noise, long life
- Low torque, smooth rotation
- Electrical noise  $< 0.01 \Omega$
- Small compact construction
- Housing diameter 12 to 35mm
- Contact material: gold-gold
- Flexible, color-coded, silver-plated, Teflon® insulated lead wires
- Higher than 2A current can be special design
- Small compact construction
- Various pin and connector types according to customer's request



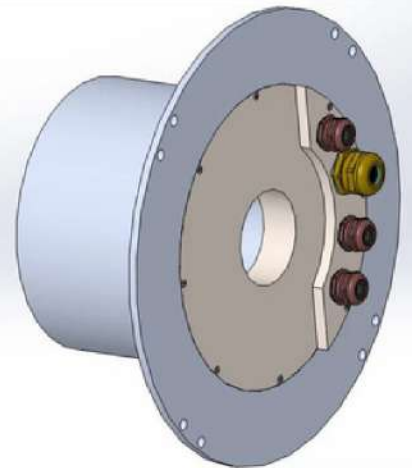


# Radar Customized Slip Ring

## Application

Our high reliability defense radar slip ring and FORJ assemblies are specially designed for defense radar systems. With extensive expertise in defense / military field, Reckers design and manufacture hundreds of customized high performance slip ring and FORJ assemblies to meet our defense customers' specific radar systems' power, signal and data transmission need.

These hybrid optical slip rings are rugged designed to suit high vibration and shock operating environments, provide more than 10 years service life. Electrical ways up to over 100 ways, support RS422, Can bus and Gigabit Ethernet various communication protocols. Fiber optical channels up to 19 channels to meet radar antenna systems' complex large data and video transmission. Encoders and connectors are optional.



### Specification:

Group	Signal 1	Signal 2	Power 1	Power 2
Number of Circuits	1~12	19~20	14~16	17~18
Voltage/ Current	/	40V/2A	700V/30A	24V/30A
Dielectric Strength	500VAC@50Hz 60s		1000VAC@50Hz 60s	500VAC@50Hz 60s
Insulation Resistance	≥500MΩ/ 500VDC		≥1000MΩ/ 800VDC	≥500MΩ/ 500VDC
Dynamic contact resistance	≤10mΩ			
Contact material	Precious			
Frame material	SS304			
Operating speed	0~250 rpm			
Operating temperature	-20°C~80°C			
Sealing degree	IP65			

# Packaging Customized Slip Ring

More and more applications need special requests of the slip rings. Reckers Automation has a rich experience and strong ability to make customized solutions. We have solutions to special mounting flanges, special wire exit, combination of hydraulic and air rotary joint, FORJ, RF connectors special cables etc.

## Typical Applications:

- Packaging Machines
- food and beverage
- Liquid filling machinery
- labelling stick machining
- bottle below machining



## Specification:

Group	Signal 1	Signal 2	Power 1	Power 2
Number of Circuits	1~12	19~20	14~16	17~18
Voltage/ Current	/	40V/2A	700V/30A	24V/30A
Dielectric Strength	500VAC@50Hz.60s		1000VAC@50Hz.60s	500VAC@50Hz.60s
Insulation Resistance	≥500MΩ/ 500VDC		≥1000MΩ/ 800VDC	≥500MΩ/ 500VDC
Dynamic contact resistance	≤10mΩ			
Contact material	Precious			
Frame material	SS304			
Operating speed	0~250 rpm			
Operating temperature	-20℃~80℃			
Sealing degree	IP65			



# Ethernet Slip Ring

This type of slip ring is developed to provide reliable products that allow the transfer of the ethernet protocol through a rotary system. Ethernet slip rings are designed to meet the requirement of matching impedance, reducing losses, and controlling crosstalk.

## Capsule Ethernet Slip Ring

- We offer thousands of models for customer to choose from
- Circuit number from 2-56
- Operation speed: standard up to 250rpm
- Circuit current: 2A, 5A, 10A, 15A, 20A
- Power circuit and Ethernet signal circuit can be integrated to one unit without affects
- Contact material silver to silver coating
- Standard temperature is -40°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Protection grade IP 51, IP54, IP 65

## Through Bore Ethernet Slip Ring

- Through bore size 3mm to 500mm
- Circuit number from 2-350
- Operation speed: standard up to 250rpm
- Circuit current: 2A, 5A, 10A, 15A, 20A, 50A, 100A, 200A, up to 400A.
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring
- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Protection grade IP 51, IP54, IP 6

## 100Mbps Ethernet Slip Ring

- Circuit number from 2-300
- Operation speed: standard up to 250rpm
- Circuit current: 2A, 5A, 10A, 15A up to 400A
- Power channels and ethernet circuits
- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Protection grade IP 51, IP 65
- Both capsule and through bore slip rings are available

## Gigabit Ethernet Slip Ring

- Circuit number from 2-350
- Operation speed: standard up to 250rpm
- Circuit current: 2A, 5A, 10A, 15A, 20A, 50A, 100A, 200A, up to 400A.
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring
- Contact material silver to silver coating
- Standard temperature is -20°C to +80°C
- Insulation strength 500V AC@50HZ 60S
- Insulation resistant 500MΩ 500VDC
- Protection grade IP 51, IP54, IP 65
- Both capsule and through bore slip rings are available

## Customized Ethernet Slip Ring

*In the modern industry automation, the machinery need transfer of more and more data while the parts are in rotary condition. Ethernet is very important to the system. We developed the Ethernet slip rings that can transfer 100Mb and 1Gbits data speed. We design the separate plate and shield to avoid the EMC affect*

*We offer wide range of solutions to different applications to meet customer requests.*

- Circuit number from 2-350
- Operation speed: 0-250rpm
- Rated current: 2A, 5A, 50A, 100A.
- Power circuit and Ethernet signal circuit can be integrated to one unit slip ring and separated
- Contact material silver to silver coating, gold to gold is an option
- Standard temperature is -40°C to +80°C
- Breakdown voltage 100V AC@50HZ 60S
- Insulation resistant 100MΩ 500VDC
- Protection grade IP 51, IP54, IP 65
- 100Mbps or 1000 Mbps
- high quality shield HRS RJ45 connectors assembled
- High quality LAPP cable 2170296 2170488






# GET IN TOUCH WITH US TODAY

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