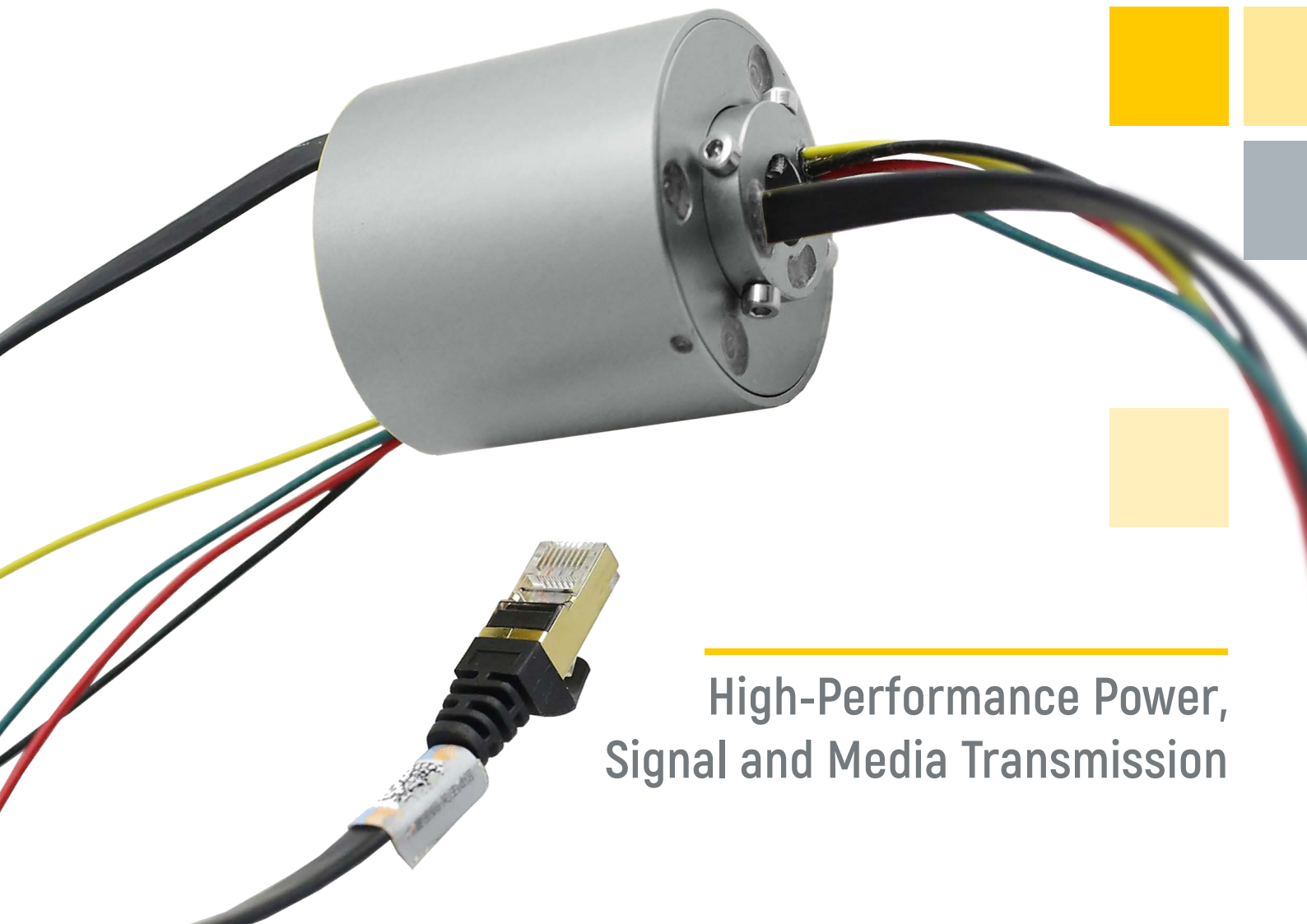




ROTARX[®]

Hybrid Slip Rings

ETHERNET + ELECTRIC



High-Performance Power,
Signal and Media Transmission

COMPACT SLIP RINGS

Our other available catalogues:

| | |
|---|-------------|
| 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) |
| PANCAKE SLIP RINGS - with Housing - without Housing | (42 pages) |
| SEPARATE SLIP RINGS | (28 pages) |
| FASTON SLIP RINGS | (24 pages) |
| MINIATURE HYBRID SLIP RINGS | (24 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

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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.

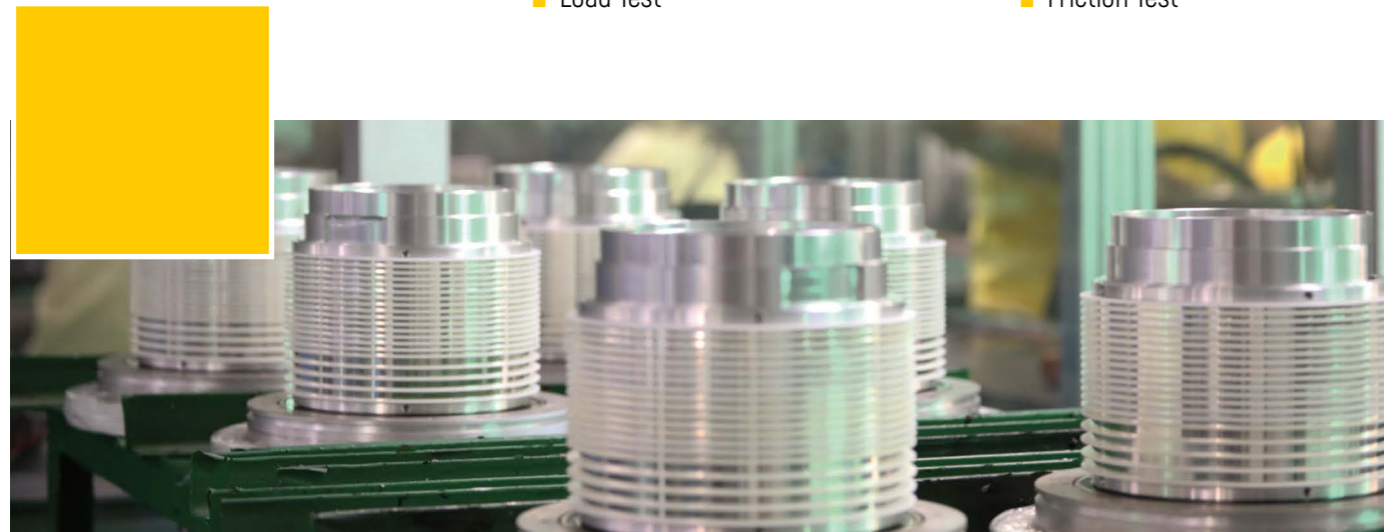


PREMIUM ENGINEERING

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

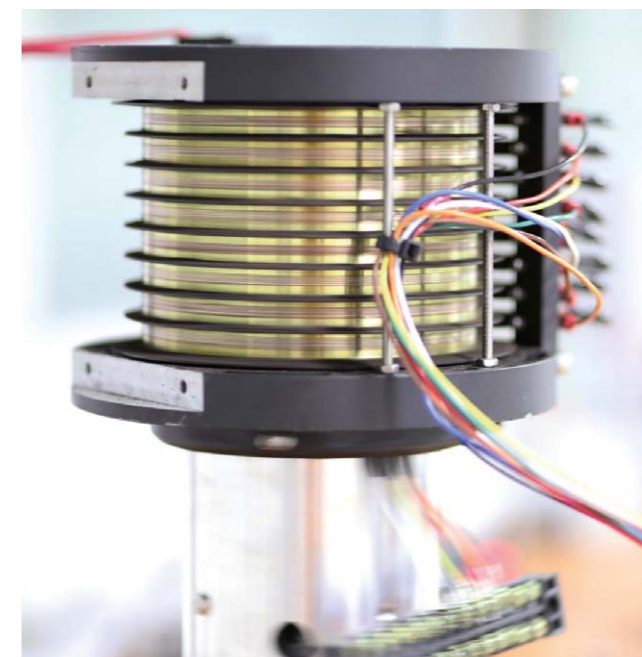
TOTAL QUALITY CONTROL

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



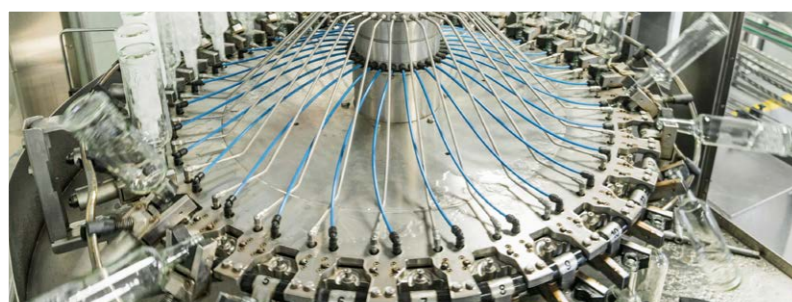
CRANE TECHNOLOGY

- Post Cranes
- Tower Cranes
- Mobile Cranes



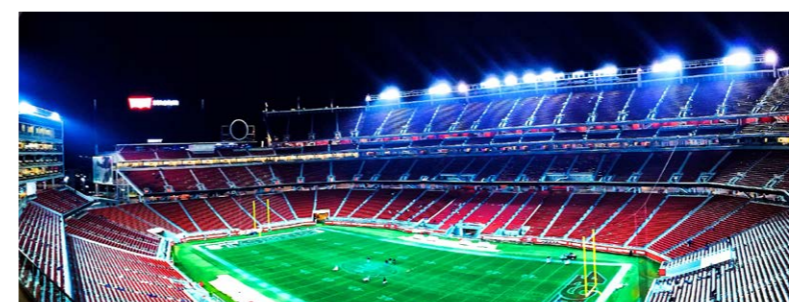
AMUSEMENT TECHNOLOGY

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



PACKAGING TECHNOLOGY

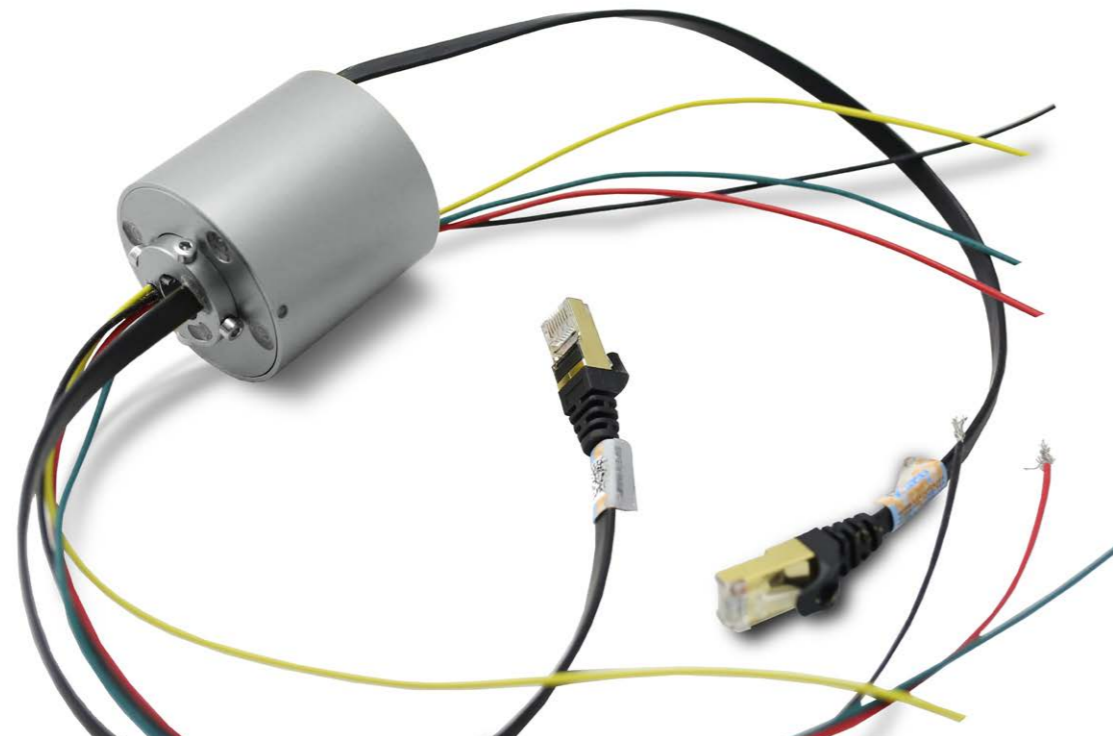
- Packaging Robots
- Filling Machines
- Capping Machines



STAGE TECHNOLOGY

- Rotating Stages
- Rotating Lights
- Revolving Platforms

RX-ETH Series



Gigabit Transmission
 Signal & Power
 Long Life
 RoHS2 CE

In modern industrial environment and automation technology many machines and devices are communicating via industrial networks. Often safety relevant information is passed through these networks and therefore reliable slip ring technology is demanded.

Our hybrid slip rings combine normal signal and power transmission with 1 or 2 Ethernet lines inside one housing. The Ethernet lines are all suitable for 10/100/1000Mbit transmission and already equipped with RJ45 connectors for plug and play usage. CAT5E, CAT6 or CAT7E cables can be selected by the customer. All components are selected for stable performance, no packet loss, no string yards and very low noise. The housing is made of robust aluminium and available as capsulated or through-bore version.

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

- + Gigabit, 10M/100M/1000Mbit Ethernet Connection
- + RJ45 Connector for Direct Plug-and-Play
- + Multiple Ethernet, Power and Signal Combinations
- + Robust Housing Design
- + Low Contact Resistance
- + Long Lifetime
- + Maintenance Free
- + 360° Continuous Rotation

MAIN APPLICATIONS

- > Automation Technology
- > Packaging Machines
- > Capping Machines
- > Cable & Hose Reels
- > Wind Turbines
- > Rotating Working Platforms
- > Robotics

PRODUCT CODE

| | | | | | | | | | | | |
|----|---|-----|----|---|---|----|---|---|----|-----|---|
| RX | - | AAA | BB | C | - | DD | E | - | FF | GGG | S |
| | | 1 | 2 | 3 | | 4 | 5 | | 6 | 7 | 8 |

Example: RX-ETH251-QS2-10006S
 (1) Hybrid Slip Ring Ethernet+Electric with (2) Inner Diameter approx. 25mm, (3) 1 Ethernet Channel, (4) Common Quality Version, (5) Power transmission 10A, (6) 10 rings for power transmission, (7) 6 rings for signal transmission, (8) Standard Version

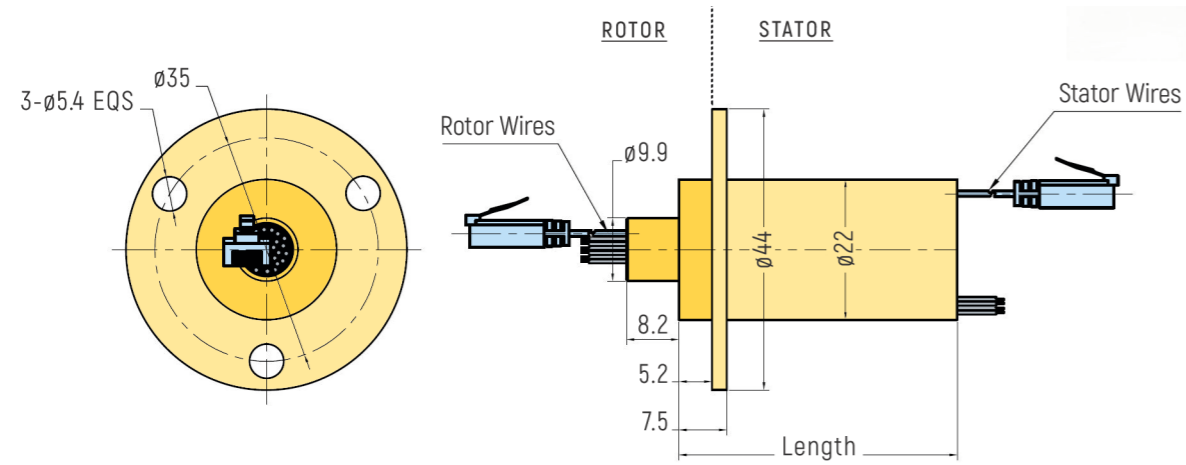
| | | | | | |
|---|-----------------------------|---|---|---------------------------|---|
| 1 | Series | ETH- Hybrid Slip Rings Ethernet + Electric | 5 | Power Level | 0 - No Power transmission 1 - Power transmission 4A 2 - Power transmission 10A 3 - Power transmission 20A X - Power transmission not possible for this type |
| 2 | Inner Diameter | From 12.7mm to 50mm (see drawings for details) | 6 | Number of Power Circuits | From 2 rings to 22 rings |
| 3 | Number of Ethernet channels | 1 or 2 | 7 | Number of Signal Circuits | From 2 rings to 46 rings |
| 4 | Quality Level | QS - Common Quality Version QI - Industrial Quality Version (see specifications for details) | 8 | Version | S - Standard C - Customized |

SPECIFICATIONS

| HYBRID ETHERNET+ELECTRIC SLIP RING SPECIFICATIONS | | | |
|---|--|--|--|
| NUMBER OF CIRCUITS | 2-22 for power transmission; | 2-46 for signal transmission | 1-2 Channels for Ethernet transmission |
| ETHERNET SPECIFICATIONS | | | |
| 1000M ETHERNET | 1 or 2 channels 1000M Ethernet | | |
| CONNECTOR | RJ45 | | |
| BER (BIT ERROR RATIO) | 10 ⁻¹¹ | | |
| ELECTRICAL SPECIFICATIONS | | | |
| CURRENT RATING | Power transmission circuits: Types ETH001 & ETH002: 4A | All other types: 10A or 20A (see product tables for details) | |
| | Signal transmission circuits: Types ETH001 & ETH002: 2A | All other types: 5A | |
| VOLTAGE RATING | 440VAC/DC | | |
| ELECTRICAL NOISE | max 10mΩ | | |
| INSULATION RESISTANCE | ≥1000 MΩ @ 500 VDC | | |
| LEAD CABLE SIZE | Power transmission circuits: Types ETH001 & ETH002: AWG28 Teflon; | ETH121-QSX & ETH122-QSX: No Power transmission | |
| | All other types: AWG16 Teflon | | |
| | Signal transmission circuits: Types ETH001 & ETH002: AWG28 Teflon; | ETH121-QSX & ETH122-QSX: AWG22 Teflon | |
| | All other types: AWG22 Teflon | | |
| LEAD CABLE LENGTH | Standard 300mm (Rotor/Stator) | | |
| DIELECTRIC STRENGTH | 500VAC @ 50Hz, 60s | | |
| MECHANICAL SPECIFICATIONS | | | |
| WORKING LIFE (Quality Level Common/Industrial) | Types ETH001 & ETH002: | 10 Million Revs (Common) | 20 Million Revs (Industrial) |
| | All other types: | 20 Million Revs (Common) | 80 Million Revs (Industrial) |
| ROTATING SPEED | Common Quality Level: | 0-150 rpm | Industrial Quality Level: 0-600 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 | 0.1N.m; +0.03N.m/6 rings | | |
| PROTECTION DEGREE | IP51 (higher or lower on request) | | |

RX-ETH001

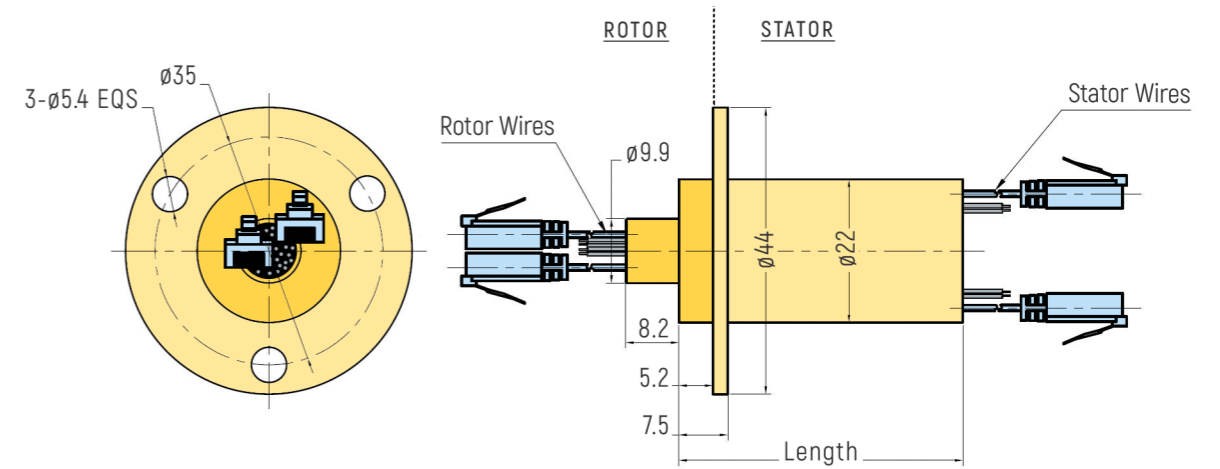
1 Ethernet Channel



| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | 1000M ETHERNET |
|----------------------|-------------|--------------------|--------------|-------------|----------------|
| | | Power 4A | Signal or 2A | Total Rings | |
| RX-ETH001-QS1-00016S | 43.6 | - | 16 | 16 | 1 |
| RX-ETH001-QS1-03010S | 43.6 | 3 | 10 | 13 | 1 |
| RX-ETH001-QS1-06004S | 43.6 | 6 | 4 | 10 | 1 |
| RX-ETH001-QS1-00028S | 57.3 | - | 28 | 28 | 1 |

RX-ETH002

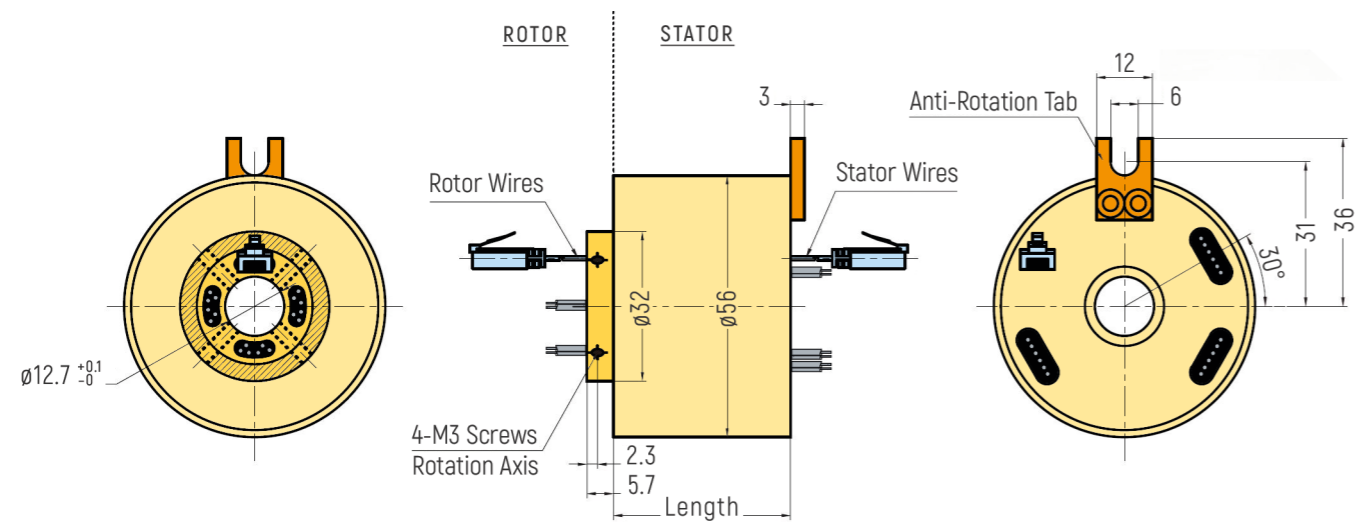
2 Ethernet Channels



| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | 1000M ETHERNET |
|----------------------|-------------|--------------------|--------------|-------------|----------------|
| | | Power 4A | Signal or 2A | Total Rings | |
| RX-ETH002-QS1-00008S | 43.6 | 0 | 8 | 8 | 2 |
| RX-ETH002-QS1-03002S | 43.6 | 3 | 2 | 5 | 2 |
| RX-ETH002-QS1-00020S | 57.3 | 0 | 20 | 20 | 2 |

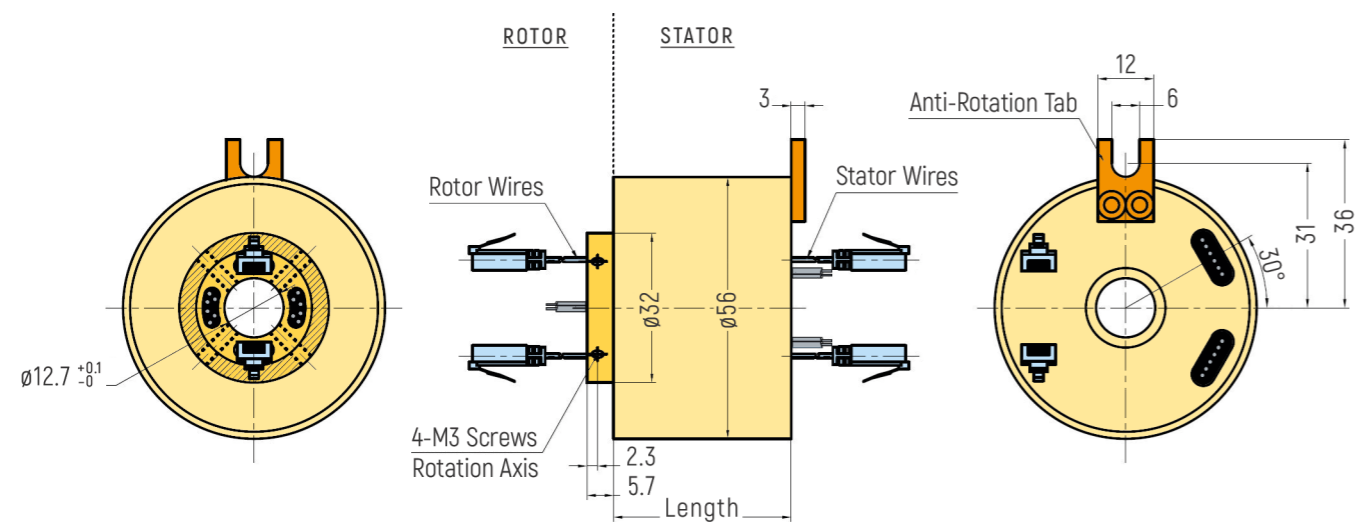
RX-ETH121

1 Ethernet Channel

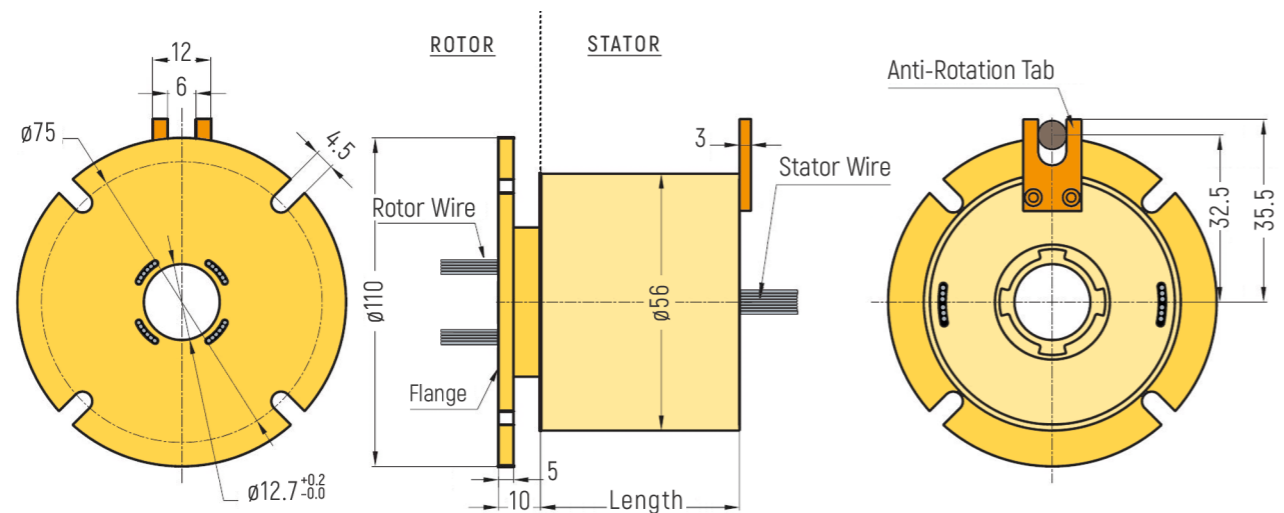


RX-ETH122

2 Ethernet Channels



Optional Flange Version (Drawing only exemplary, further details on request)

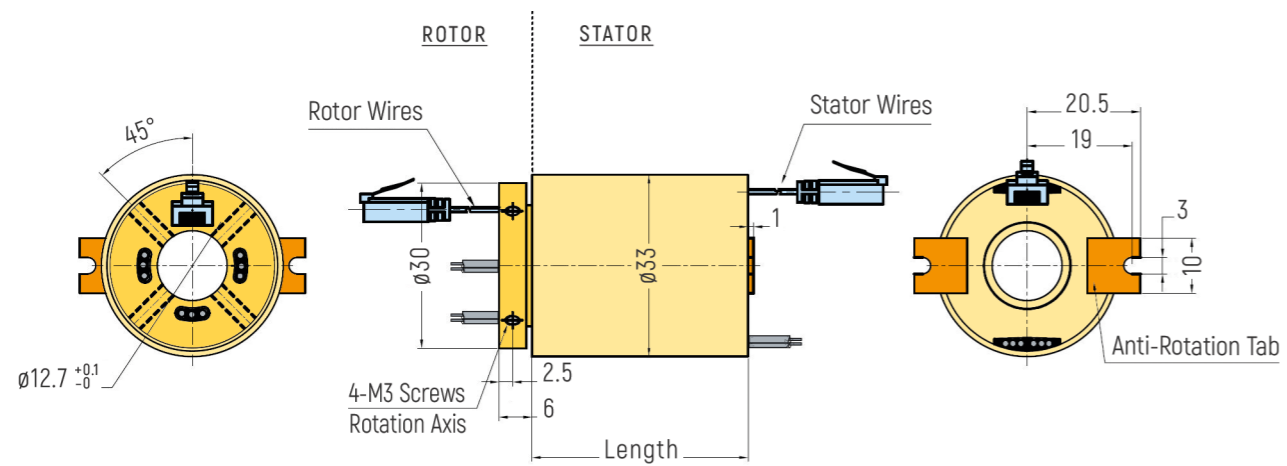


| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | | 1000M ETHERNET |
|-------------------------|-------------|--------------------|-----------|-----------|-------------|----------------|
| | | Power 10A | Power 20A | Signal 5A | Total Rings | |
| RX-ETH121 Series | | | | | | |
| RX-ETH121-QS0-00004S | 54.8 | - | - | 4 | 4 | 1 |
| RX-ETH121-QS2-04000S | 54.8 | 4 | - | 0 | 4 | 1 |
| RX-ETH121-QS3-04000S | 71.5 | - | 4 | 0 | 4 | 1 |
| RX-ETH121-QS0-00010S | 71.5 | - | - | 10 | 10 | 1 |
| RX-ETH121-QS2-02008S | 71.5 | 2 | - | 8 | 10 | 1 |
| RX-ETH121-QS2-04006S | 71.5 | 4 | - | 6 | 10 | 1 |
| RX-ETH121-QS2-06004S | 71.5 | 6 | - | 4 | 10 | 1 |
| RX-ETH121-QS2-10000S | 71.5 | 10 | - | 0 | 10 | 1 |
| RX-ETH121-QS0-00016S | 88.4 | - | - | 16 | 16 | 1 |
| RX-ETH121-QS2-02014S | 88.4 | 2 | - | 14 | 16 | 1 |
| RX-ETH121-QS2-04012S | 88.4 | 4 | - | 12 | 16 | 1 |
| RX-ETH121-QS2-06010S | 88.4 | 6 | - | 10 | 16 | 1 |
| RX-ETH121-QS2-08008S | 88.4 | 8 | - | 8 | 16 | 1 |
| RX-ETH121-QS2-10006S | 88.4 | 10 | - | 6 | 16 | 1 |
| RX-ETH121-QS0-00022S | 105.2 | - | - | 22 | 22 | 1 |
| RX-ETH121-QS0-00028S | 125 | - | - | 28 | 28 | 1 |
| RX-ETH121-QS0-00034S | 141.8 | - | - | 34 | 34 | 1 |
| RX-ETH122 Series | | | | | | |
| RX-ETH122-QS0-00002S | 71.5 | - | - | 2 | 2 | 2 |
| RX-ETH122-QS2-02000S | 71.5 | 2 | - | - | 2 | 2 |
| RX-ETH122-QS3-04000S | 88.4 | - | 4 | - | 4 | 2 |
| RX-ETH122-QS0-00008S | 88.4 | - | - | 8 | 8 | 2 |
| RX-ETH122-QS2-08000S | 88.4 | 8 | - | 0 | 8 | 2 |
| RX-ETH122-QS2-02006S | 88.4 | 2 | - | 6 | 8 | 2 |
| RX-ETH122-QS2-04004S | 88.4 | 4 | - | 4 | 8 | 2 |
| RX-ETH122-QS0-00014S | 105.2 | - | - | 14 | 14 | 2 |
| RX-ETH122-QS2-04010S | 105.2 | 4 | - | 10 | 14 | 2 |
| RX-ETH122-QS2-06008S | 105.2 | 6 | - | 8 | 14 | 2 |
| RX-ETH122-QS2-10004S | 105.2 | 10 | - | 4 | 14 | 2 |
| RX-ETH122-QS0-00020S | 122 | - | - | 20 | 20 | 2 |
| RX-ETH122-QS0-00026S | 138.8 | - | - | 26 | 26 | 2 |
| RX-ETH122-QS0-00032S | 155.6 | - | - | 32 | 32 | 2 |

↳ 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
 ↳ According to customers demand, 10A, 20A and 5A can be combined freely. Please contact customer service if more than 2 channels Ethernet are required.

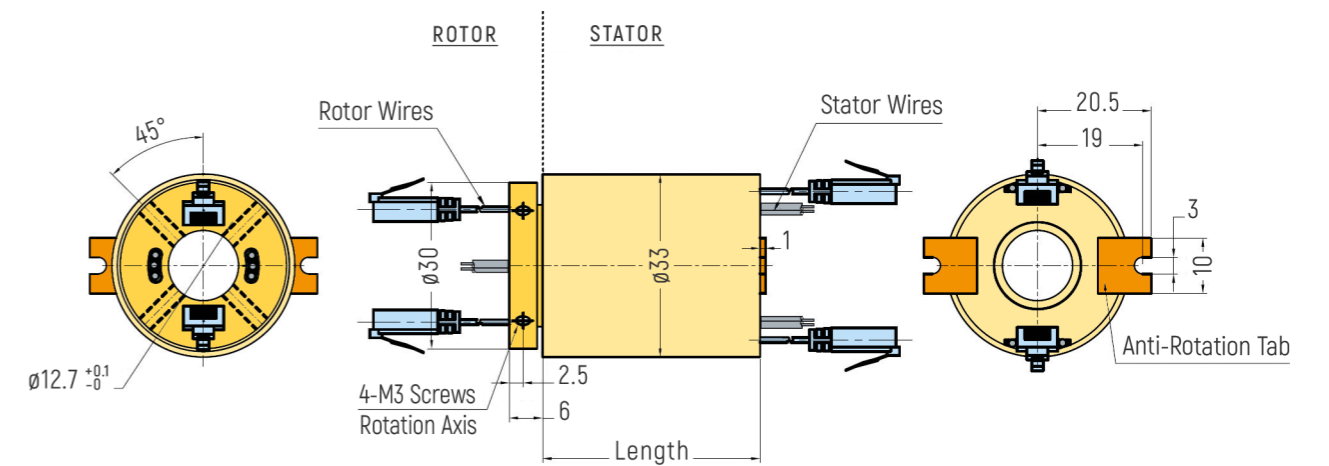
RX-ETH121-QSX

1 Ethernet Channel



RX-ETH122-QSX

2 Ethernet Channels



| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | 1000M ETHERNET |
|----------------------|-------------|--------------------|-------------|----------------|
| | | Power 5A | Total Rings | |
| RX-ETH121-QSX-00004S | 39.2 | 4 | 4 | 1 |
| RX-ETH121-QSX-00010S | 53 | 10 | 10 | 1 |

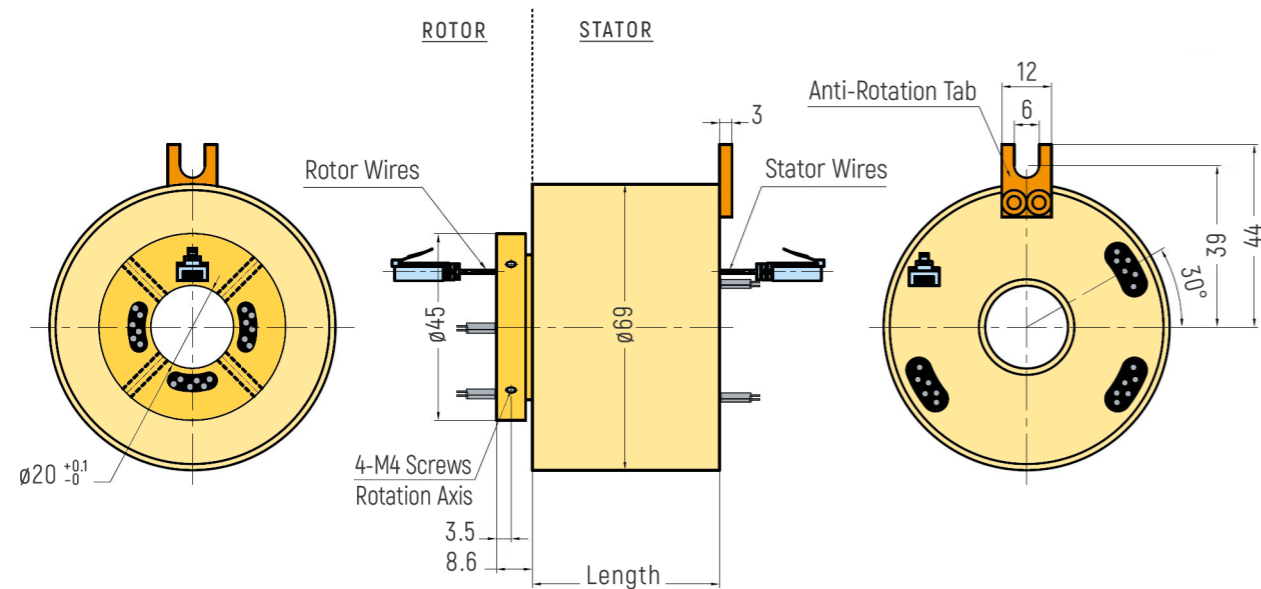
| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | 1000M ETHERNET |
|----------------------|-------------|--------------------|-------------|----------------|
| | | Power 5A | Total Rings | |
| RX-ETH122-QSX-00002S | 53 | 2 | 2 | 2 |
| RX-ETH122-QSX-00008S | 66.8 | 8 | 8 | 2 |

↳ N channels 5A rings parallel can be used as 1 channel N*5A current. Example: 2 rings 5A each can be used parallel for transmission of 10A.
 ↳ Circuit number and current strength can be customized, please contact customer service for more details.

↳ N channels 5A rings parallel can be used as 1 channel N*5A current. Example: 2 rings 5A each can be used parallel for transmission of 10A.
 ↳ Circuit number and current strength can be customized, please contact customer service for more details.

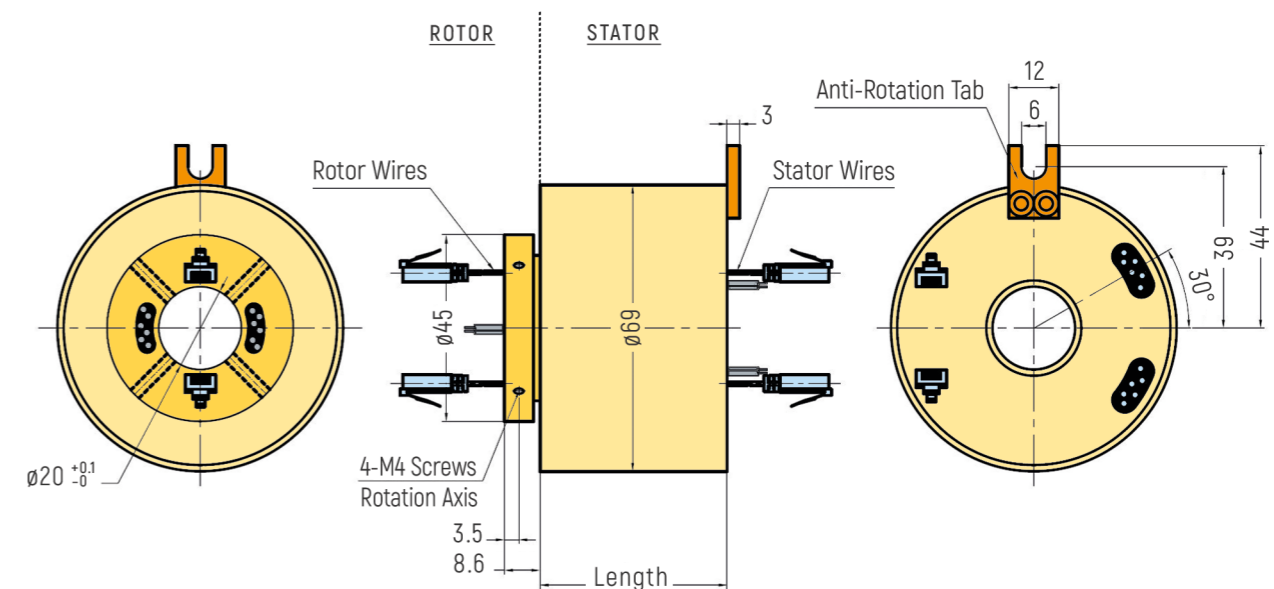
RX-ETH201

1 Ethernet Channel



RX-ETH202

2 Ethernet Channels



| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | | 1000M ETHERNET |
|----------------------|-------------|--------------------|-----------|-----------|-------------|----------------|
| | | Power 10A | Power 20A | Signal 5A | Total Rings | |
| RX-ETH201-QS0-00004S | 65.6 | - | - | 4 | 4 | 1 |
| RX-ETH201-QS2-04000S | 65.6 | 4 | - | - | 4 | 1 |
| RX-ETH201-QS3-04000S | 86 | * | 4 | - | 4 | 1 |
| RX-ETH201-QS0-00010S | 86 | * | - | 10 | 10 | 1 |
| RX-ETH201-QS2-02008S | 86 | 2 | - | 8 | 10 | 1 |
| RX-ETH201-QS2-04006S | 86 | 4 | - | 6 | 10 | 1 |
| RX-ETH201-QS2-06004S | 86 | 6 | - | 4 | 10 | 1 |
| RX-ETH201-QS0-00016S | 106.4 | - | - | 16 | 16 | 1 |
| RX-ETH201-QS2-02014S | 106.4 | 2 | - | 14 | 16 | 1 |
| RX-ETH201-QS2-04012S | 106.4 | 4 | - | 12 | 16 | 1 |
| RX-ETH201-QS2-06010S | 106.4 | 6 | - | 10 | 16 | 1 |
| RX-ETH201-QS2-08008S | 106.4 | 8 | - | 8 | 16 | 1 |
| RX-ETH201-QS2-10006S | 106.4 | 10 | - | 6 | 16 | 1 |
| RX-ETH201-QS2-12004S | 106.4 | 12 | - | 4 | 16 | 1 |
| RX-ETH201-QS0-00022S | 126.8 | - | - | 22 | 22 | 1 |
| RX-ETH201-QS0-00028S | 150.2 | - | - | 28 | 28 | 1 |
| RX-ETH201-QS0-00034S | 170.6 | - | - | 34 | 34 | 1 |

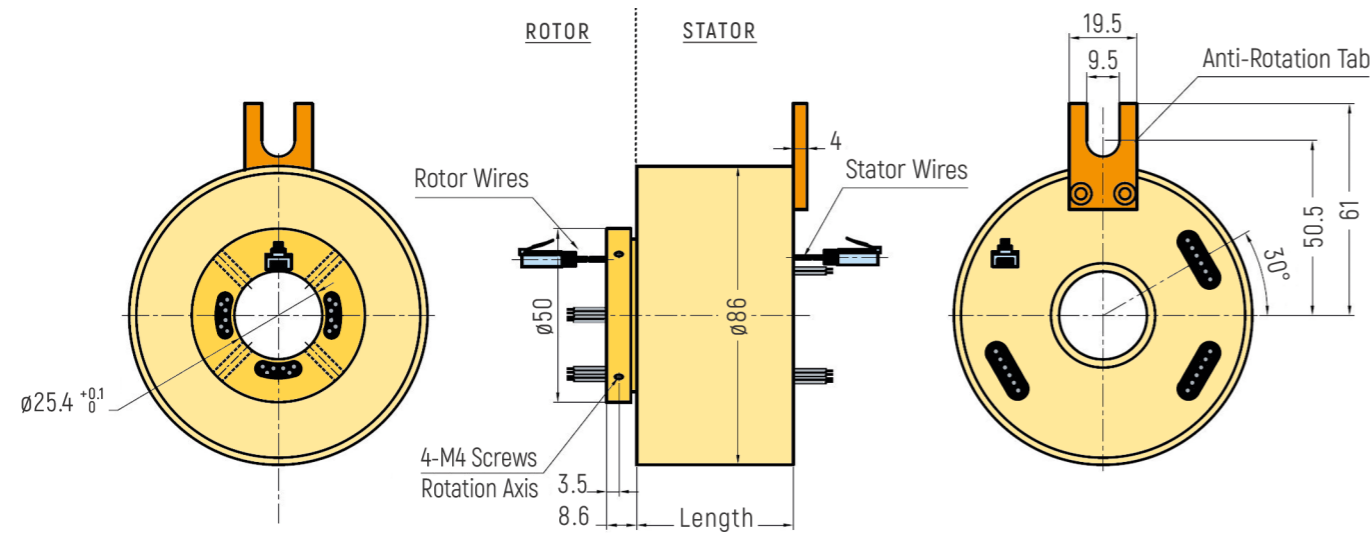
| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | | 1000M ETHERNET |
|----------------------|-------------|--------------------|-----------|-----------|-------------|----------------|
| | | Power 10A | Power 20A | Signal 5A | Total Rings | |
| RX-ETH202-QS0-00002S | 86 | - | - | 2 | 2 | 2 |
| RX-ETH202-QS2-02000S | 86 | 2 | - | - | 2 | 2 |
| RX-ETH202-QS3-04000S | 106.4 | - | 4 | - | 4 | 2 |
| RX-ETH202-QS0-00008S | 106.4 | - | - | 8 | 8 | 2 |
| RX-ETH202-QS2-08000S | 106.4 | 8 | - | - | 8 | 2 |
| RX-ETH202-QS2-02006S | 106.4 | 2 | - | 6 | 8 | 2 |
| RX-ETH202-QS2-04004S | 106.4 | 4 | - | 4 | 8 | 2 |
| RX-ETH202-QS0-00014S | 126.8 | - | - | 14 | 14 | 2 |
| RX-ETH202-QS2-04010S | 126.8 | 4 | - | 10 | 14 | 2 |
| RX-ETH202-QS2-06008S | 126.8 | 6 | - | 8 | 14 | 2 |
| RX-ETH202-QS2-10004S | 126.8 | 10 | - | 4 | 14 | 2 |
| RX-ETH202-QS0-00020S | 150.2 | - | - | 20 | 20 | 2 |
| RX-ETH202-QS0-00026S | 170.6 | - | - | 26 | 26 | 2 |
| RX-ETH202-QS0-00032S | 191 | - | - | 32 | 32 | 2 |

↳ 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
 ↳ According to customers demand, 10A, 20A and 5A can be combined freely. Please contact customer service if more than 2 channels Ethernet are required.

↳ 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
 ↳ According to customers demand, 10A, 20A and 5A can be combined freely. Please contact customer service if more than 2 channels Ethernet are required.

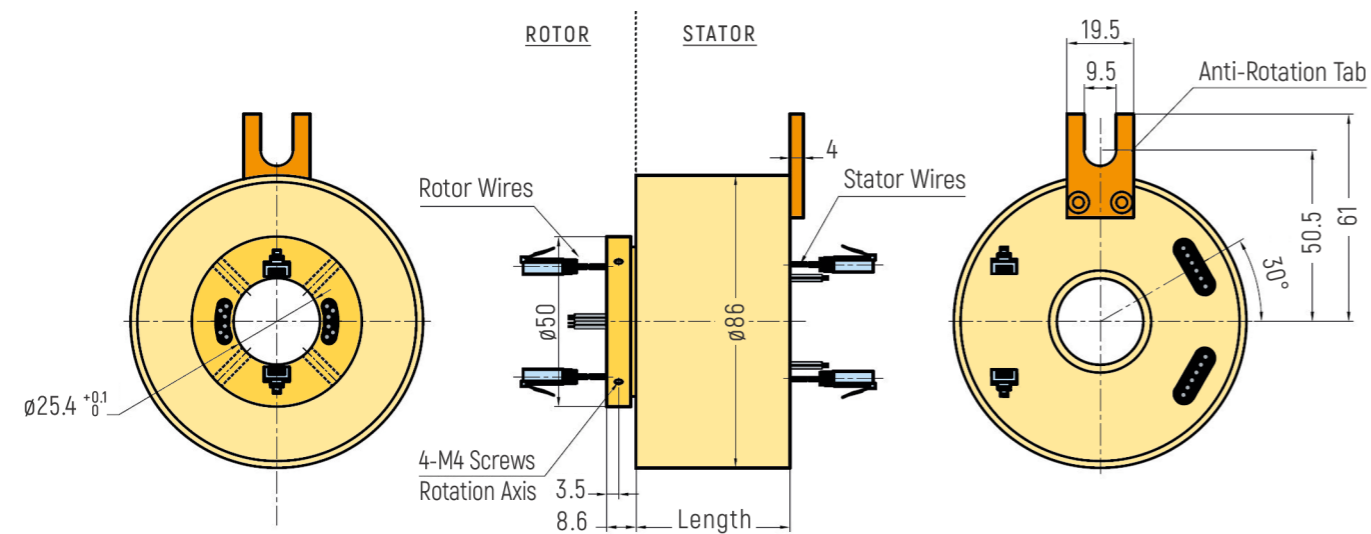
RX-ETH251

1 Ethernet Channel

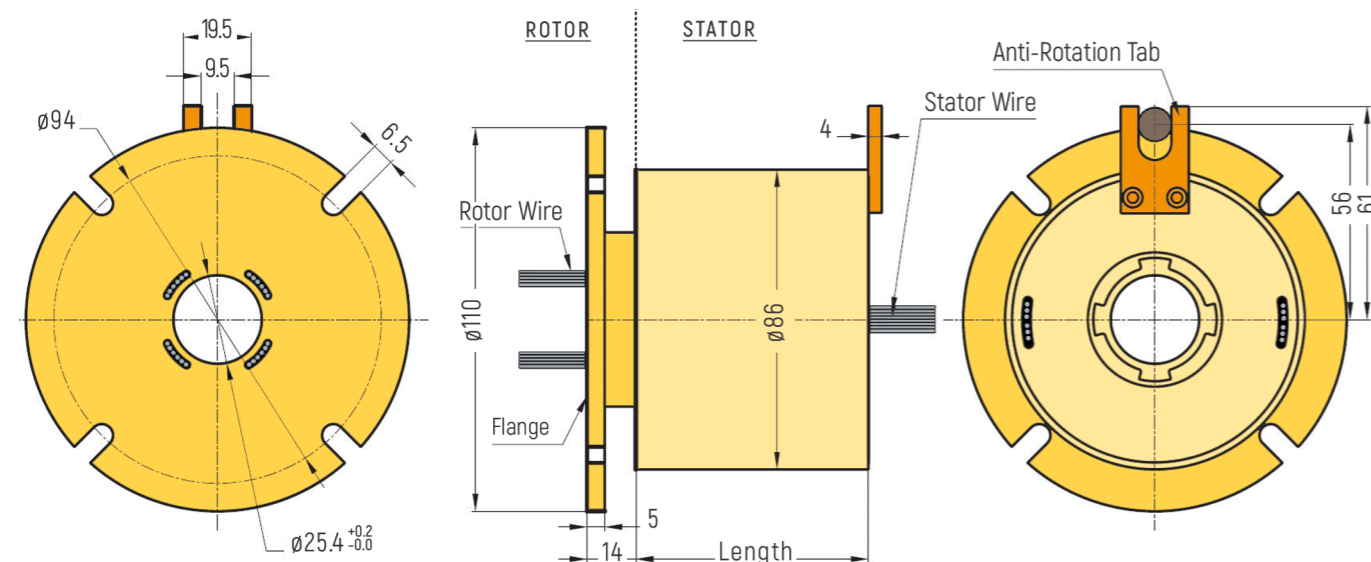


RX-ETH252

2 Ethernet Channels



Optional Flange Version (Drawing only exemplary, further details on request)

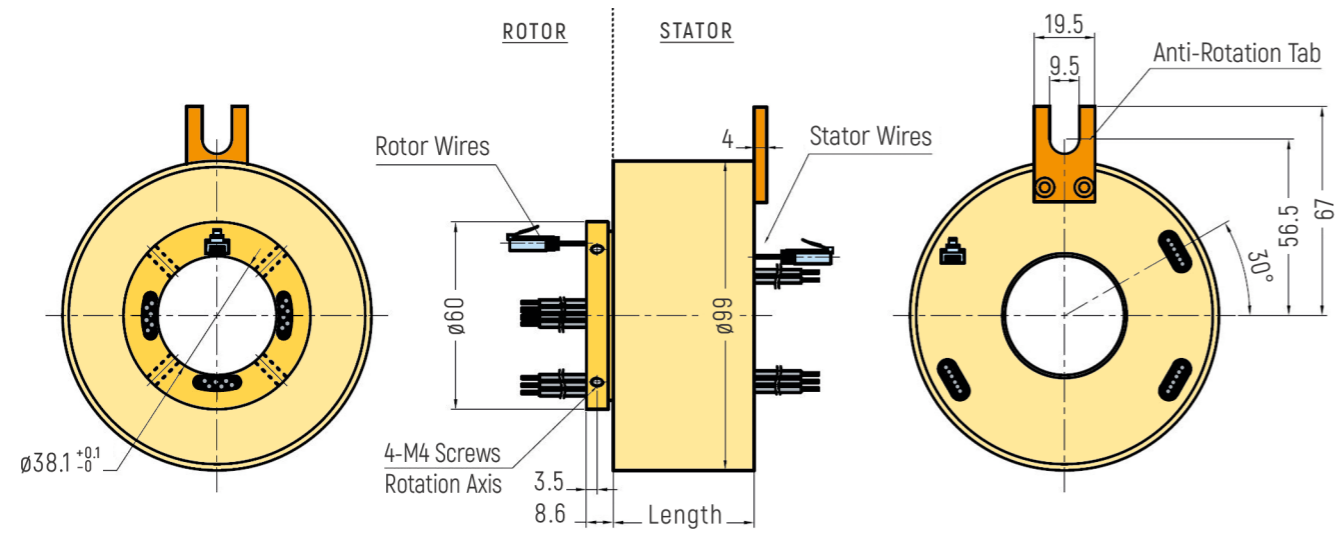


| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | 1000M ETHERNET |
|-------------------------|-------------|--------------------|-----------|-----------|----------------|
| | | Power 10A | Power 20A | Signal 5A | |
| RX-ETH251 Series | | | | | |
| RX-ETH251-QS0-00004S | 65.6 | - | - | 4 | 4 |
| RX-ETH251-QS2-04000S | 65.6 | 4 | - | - | 4 |
| RX-ETH251-QS3-04000S | 86 | - | 4 | - | 4 |
| RX-ETH251-QS0-00010S | 86 | - | - | 10 | 10 |
| RX-ETH251-QS2-02008S | 86 | 2 | - | 8 | 10 |
| RX-ETH251-QS2-04006S | 86 | 4 | - | 6 | 10 |
| RX-ETH251-QS2-06004S | 86 | 6 | - | 4 | 10 |
| RX-ETH251-QS0-00016S | 106.4 | - | - | 16 | 16 |
| RX-ETH251-QS2-16000S | 106.4 | 16 | - | - | 16 |
| RX-ETH251-QS2-04012S | 106.4 | 4 | - | 12 | 16 |
| RX-ETH251-QS2-06010S | 106.4 | 6 | - | 10 | 16 |
| RX-ETH251-QS2-08008S | 106.4 | 8 | - | 8 | 16 |
| RX-ETH251-QS2-10006S | 106.4 | 10 | - | 6 | 16 |
| RX-ETH251-QS0-00022S | 126.8 | - | - | 22 | 22 |
| RX-ETH251-QS2-04018S | 126.8 | 4 | - | 18 | 22 |
| RX-ETH251-QS2-22000S | 126.8 | 22 | - | - | 22 |
| RX-ETH251-QS0-00028S | 147.2 | - | - | 28 | 28 |
| RX-ETH251-QS2-06022S | 147.2 | 6 | - | 22 | 28 |
| RX-ETH251-QS2-06034S | 191 | 6 | - | 34 | 40 |
| RX-ETH251-QS0-00040S | 191 | - | - | 40 | 40 |
| RX-ETH251-QS2-06040S | 211.4 | 6 | - | 40 | 40 |
| RX-ETH251-QS0-00046S | 211.4 | - | - | 46 | 46 |
| RX-ETH252 Series | | | | | |
| RX-ETH252-QS0-00002S | 86 | - | - | 2 | 2 |
| RX-ETH252-QS2-02000S | 86 | 2 | - | - | 2 |
| RX-ETH252-QS0-00008S | 106.4 | - | - | 8 | 8 |
| RX-ETH252-QS2-08000S | 106.4 | 8 | - | - | 8 |
| RX-ETH252-QS3-04000S | 106.4 | - | 4 | - | 4 |
| RX-ETH252-QS2-04004S | 106.4 | 4 | - | 4 | 8 |
| RX-ETH252-QS0-00014S | 126.8 | - | - | 14 | 14 |
| RX-ETH252-QS2-04010S | 126.8 | 4 | - | 10 | 14 |
| RX-ETH252-QS2-06008S | 126.8 | 6 | - | 8 | 14 |
| RX-ETH252-QS2-08006S | 126.8 | 8 | - | 6 | 14 |
| RX-ETH252-QS2-10004S | 126.8 | 10 | - | 4 | 14 |
| RX-ETH252-QS2-14000S | 126.8 | 14 | - | - | 14 |
| RX-ETH252-QS0-00020S | 147.2 | - | - | 20 | 20 |
| RX-ETH252-QS2-04016S | 147.2 | 4 | - | 16 | 20 |
| RX-ETH252-QS2-10010S | 147.2 | 10 | - | 10 | 20 |
| RX-ETH252-QS2-20000S | 147.2 | 20 | - | - | 20 |
| RX-ETH252-QS2-06026S | 191 | 6 | - | 26 | 32 |
| RX-ETH252-QS0-00032S | 191 | - | - | 32 | 32 |
| RX-ETH252-QS2-06032S | 211.4 | 6 | - | 32 | 38 |
| RX-ETH252-QS0-00038S | 211.4 | - | - | 38 | 38 |

↳ 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
 ↳ According to customers demand, 10A, 20A and 5A can be combined freely. Please contact customer service if more than 2 channels Ethernet are required.

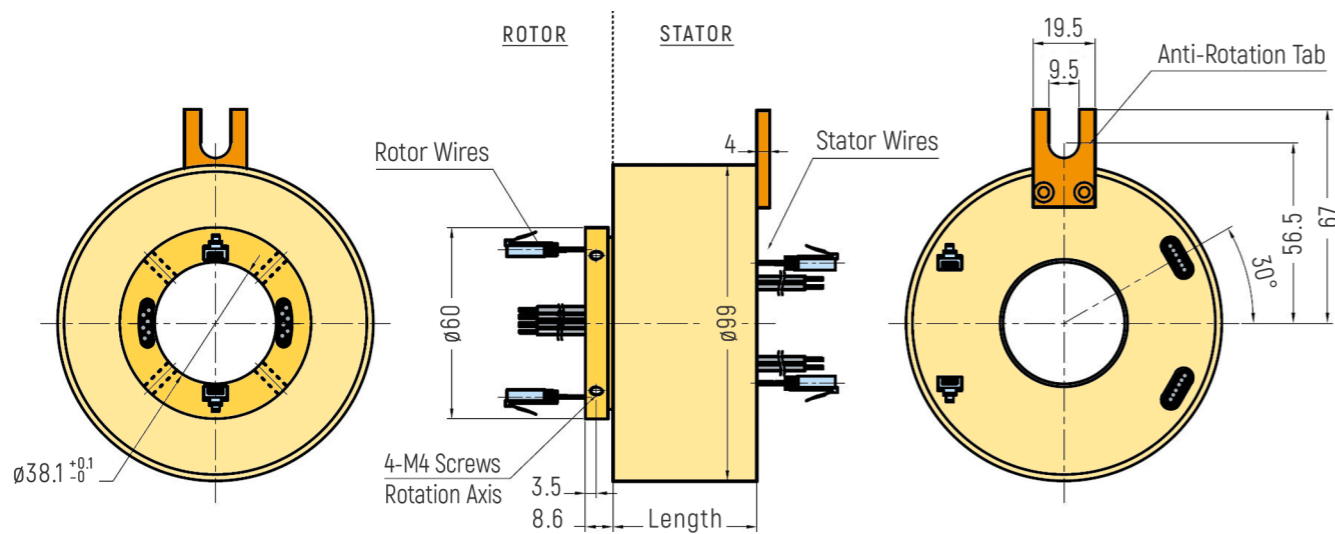
RX-ETH381

1 Ethernet Channel

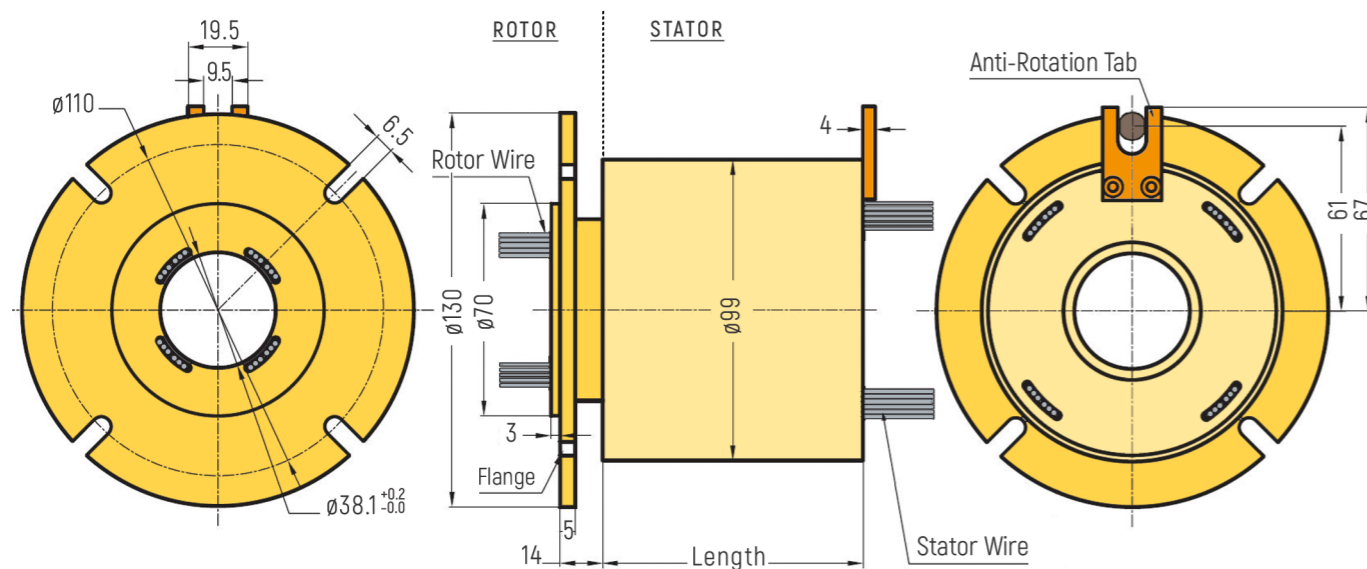


RX-ETH382

2 Ethernet Channels



Optional Flange Version (Drawing only exemplary, further details on request)

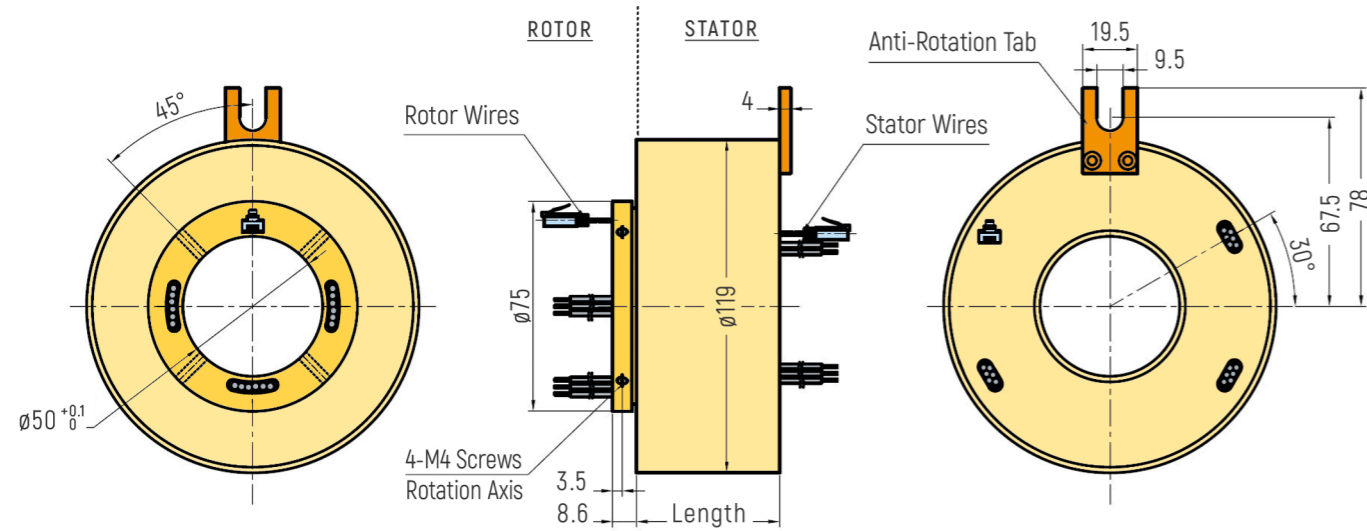


| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | 1000M ETHERNET |
|-------------------------|-------------|--------------------|-----------|-----------|----------------|
| | | Power 10A | Power 20A | Signal 5A | |
| RX-ETH381 Series | | | | | |
| RX-ETH381-QS0-00004S | 65.6 | - | - | 4 | 4 |
| RX-ETH381-QS2-04000S | 65.6 | 4 | - | - | 4 |
| RX-ETH381-QS3-04000S | 86 | - | 4 | - | 4 |
| RX-ETH381-QS0-00010S | 86 | - | - | 10 | 10 |
| RX-ETH381-QS2-02008S | 86 | 2 | - | 8 | 10 |
| RX-ETH381-QS2-04006S | 86 | 4 | - | 6 | 10 |
| RX-ETH381-QS2-06004S | 86 | 6 | - | 4 | 10 |
| RX-ETH381-QS0-00016S | 106.4 | - | - | 16 | 16 |
| RX-ETH381-QS2-16000S | 106.4 | 16 | - | - | 16 |
| RX-ETH381-QS2-04012S | 106.4 | 4 | - | 12 | 16 |
| RX-ETH381-QS2-06010S | 106.4 | 6 | - | 10 | 16 |
| RX-ETH381-QS2-08008S | 106.4 | 8 | - | 8 | 16 |
| RX-ETH381-QS2-10006S | 106.4 | 10 | - | 6 | 16 |
| RX-ETH381-QS0-00022S | 126.8 | - | - | 22 | 22 |
| RX-ETH381-QS2-04018S | 126.8 | 4 | - | 18 | 22 |
| RX-ETH381-QS2-22000S | 126.8 | 22 | - | - | 22 |
| RX-ETH381-QS2-06028S | 147.2 | 6 | - | 28 | 34 |
| RX-ETH381-QS2-06022S | 147.2 | 6 | - | 22 | 28 |
| RX-ETH381-QS2-06034S | 191 | 6 | - | 34 | 40 |
| RX-ETH381-QS0-00040S | 191 | - | - | 40 | 40 |
| RX-ETH381-QS2-06040S | 211.4 | 6 | - | 40 | 46 |
| RX-ETH381-QS0-00046S | 211.4 | - | - | 46 | 46 |
| RX-ETH382 Series | | | | | |
| RX-ETH382-QS0-00002S | 86 | - | - | 2 | 2 |
| RX-ETH382-QS2-02000S | 86 | 2 | - | - | 2 |
| RX-ETH382-QS0-00008S | 106.4 | - | - | 8 | 8 |
| RX-ETH382-QS2-08000S | 106.4 | 8 | - | - | 8 |
| RX-ETH382-QS3-04000S | 106.4 | - | 4 | - | 4 |
| RX-ETH382-QS2-04004S | 106.4 | 4 | - | 4 | 8 |
| RX-ETH382-QS0-00014S | 126.8 | - | - | 14 | 14 |
| RX-ETH382-QS2-04010S | 126.8 | 4 | - | 10 | 14 |
| RX-ETH382-QS2-06008S | 126.8 | 6 | - | 8 | 14 |
| RX-ETH382-QS2-08006S | 126.8 | 8 | - | 6 | 14 |
| RX-ETH382-QS2-10004S | 126.8 | 10 | - | 4 | 14 |
| RX-ETH382-QS2-14000S | 126.8 | 14 | - | - | 14 |
| RX-ETH382-QS0-00020S | 147.2 | - | - | 20 | 20 |
| RX-ETH382-QS2-04016S | 147.2 | 4 | - | 16 | 20 |
| RX-ETH382-QS2-10010S | 147.2 | 10 | - | 10 | 20 |
| RX-ETH382-QS2-20000S | 147.2 | 20 | - | - | 20 |
| RX-ETH382-QS2-06026S | 191 | 6 | - | 26 | 32 |
| RX-ETH382-QS0-00032S | 191 | - | - | 32 | 32 |
| RX-ETH382-QS2-06032S | 211.4 | 6 | - | 32 | 38 |
| RX-ETH382-QS0-00038S | 211.4 | - | - | 38 | 38 |

↳ 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
 ↳ According to customers demand, 10A, 20A and 5A can be combined freely. Please contact customer service if more than 2 channels Ethernet are required.

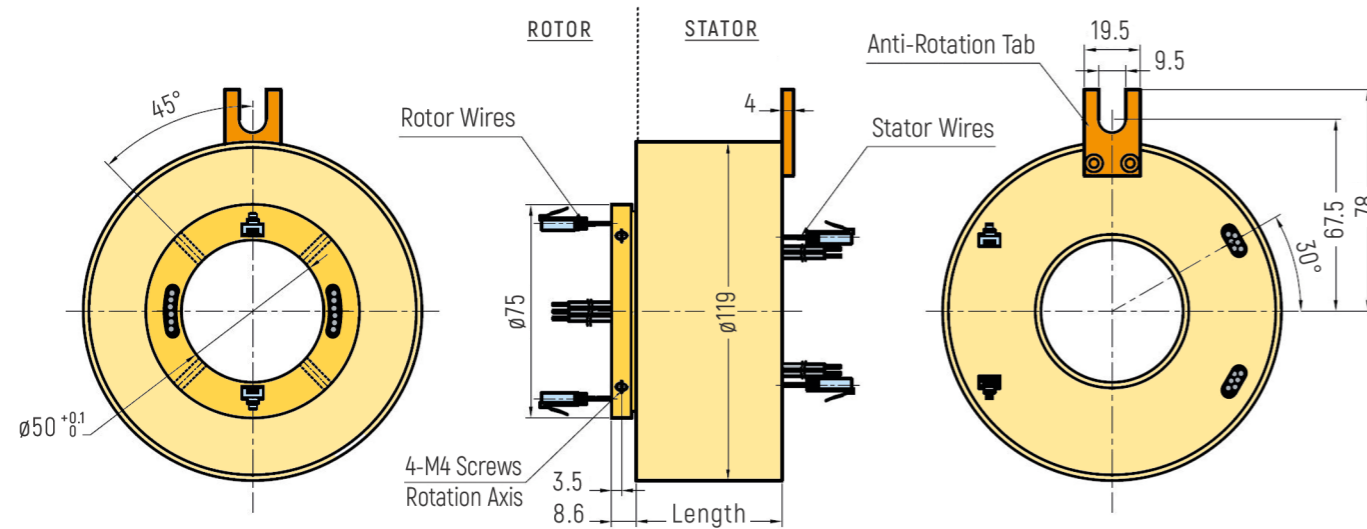
RX-ETH501

1 Ethernet Channel

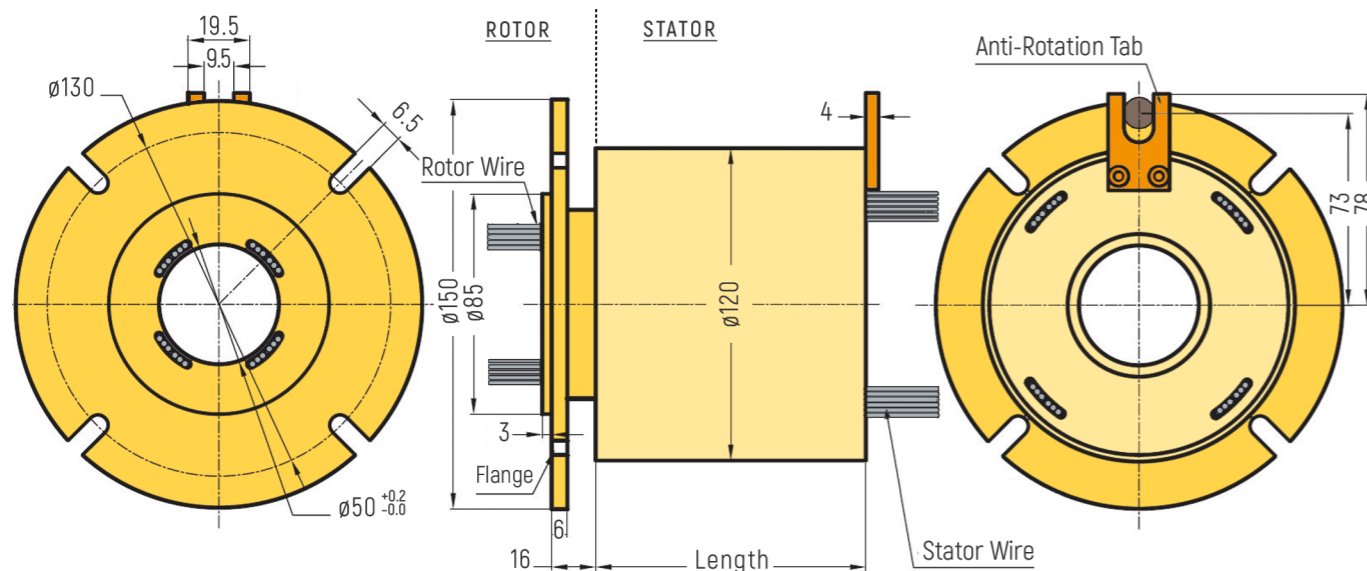


RX-ETH502

2 Ethernet Channels



Optional Flange Version (Drawing only exemplary, further details on request)



| MODEL | LENGTH (mm) | NUMBER OF CIRCUITS | | | 1000M ETHERNET |
|-------------------------|-------------|--------------------|-----------|-----------|----------------|
| | | Power 10A | Power 20A | Signal 5A | |
| RX-ETH501 Series | | | | | |
| RX-ETH501-QS0-00004S | 74 | - | - | 4 | 4 |
| RX-ETH501-QS2-04000S | 74 | 4 | - | - | 4 |
| RX-ETH501-QS3-04000S | 96.8 | - | 4 | - | 4 |
| RX-ETH501-QS0-00010S | 96.8 | - | - | 10 | 10 |
| RX-ETH501-QS2-02008S | 96.8 | 2 | - | 8 | 10 |
| RX-ETH501-QS2-04006S | 96.8 | 4 | - | 6 | 10 |
| RX-ETH501-QS2-06004S | 96.8 | 6 | - | 4 | 10 |
| RX-ETH501-QS2-10000S | 96.8 | 10 | - | - | 10 |
| RX-ETH501-QS0-00016S | 120 | - | - | 16 | 16 |
| RX-ETH501-QS2-16000S | 120 | 16 | - | - | 16 |
| RX-ETH501-QS2-04012S | 120 | 4 | - | 12 | 16 |
| RX-ETH501-QS2-08008S | 120 | 8 | - | 8 | 16 |
| RX-ETH501-QS2-10006S | 120 | 10 | - | 6 | 16 |
| RX-ETH501-QS0-00022S | 142.4 | - | - | 22 | 22 |
| RX-ETH501-QS2-04018S | 142.4 | 4 | - | 18 | 22 |
| RX-ETH501-QS2-10012S | 142.4 | 10 | - | 12 | 22 |
| RX-ETH501-QS2-22000S | 142.4 | 22 | - | - | 22 |
| RX-ETH501-QS2-06022S | 165.2 | 6 | - | 22 | 28 |
| RX-ETH501-QS2-06034S | 214.8 | 6 | - | 34 | 40 |
| RX-ETH501-QS2-12028S | 214.8 | 12 | - | 28 | 40 |
| RX-ETH501-QS0-00040S | 214.8 | - | - | 40 | 40 |
| RX-ETH501-QS2-06040S | 237.6 | 6 | - | 40 | 46 |
| RX-ETH501-QS0-00046S | 237.6 | - | - | 46 | 46 |
| RX-ETH502 Series | | | | | |
| RX-ETH502-QS0-00002S | 96.8 | - | - | 2 | 2 |
| RX-ETH502-QS2-02000S | 96.8 | 2 | - | - | 2 |
| RX-ETH502-QS0-00008S | 120 | - | - | 8 | 8 |
| RX-ETH502-QS2-08000S | 120 | 8 | - | - | 8 |
| RX-ETH502-QS3-04000S | 120 | - | 4 | - | 4 |
| RX-ETH502-QS2-04004S | 120 | 4 | - | 4 | 8 |
| RX-ETH502-QS0-00014S | 142.4 | - | - | 14 | 14 |
| RX-ETH502-QS2-06008S | 142.4 | 6 | - | 8 | 14 |
| RX-ETH502-QS2-04010S | 142.4 | 4 | - | 10 | 14 |
| RX-ETH502-QS2-08006S | 142.4 | 8 | - | 6 | 14 |
| RX-ETH502-QS2-14000S | 142.4 | 14 | - | - | 14 |
| RX-ETH502-QS0-00020S | 165.2 | - | - | 20 | 20 |
| RX-ETH502-QS2-04016S | 165.2 | 4 | - | 16 | 20 |
| RX-ETH502-QS2-10010S | 165.2 | 10 | - | 10 | 20 |
| RX-ETH502-QS2-14006S | 165.2 | 14 | - | 6 | 20 |
| RX-ETH502-QS2-20000S | 165.2 | 20 | - | - | 20 |
| RX-ETH502-QS2-06026S | 214.8 | 6 | - | 26 | 32 |
| RX-ETH502-QS2-12020S | 214.8 | 12 | - | 20 | 32 |
| RX-ETH502-QS0-00032S | 214.8 | - | - | 32 | 32 |
| RX-ETH502-QS2-06032S | 237.6 | 6 | - | 32 | 38 |
| RX-ETH502-QS2-12026S | 237.6 | 12 | - | 26 | 38 |
| RX-ETH502-QS0-00038S | 237.6 | - | - | 38 | 38 |

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

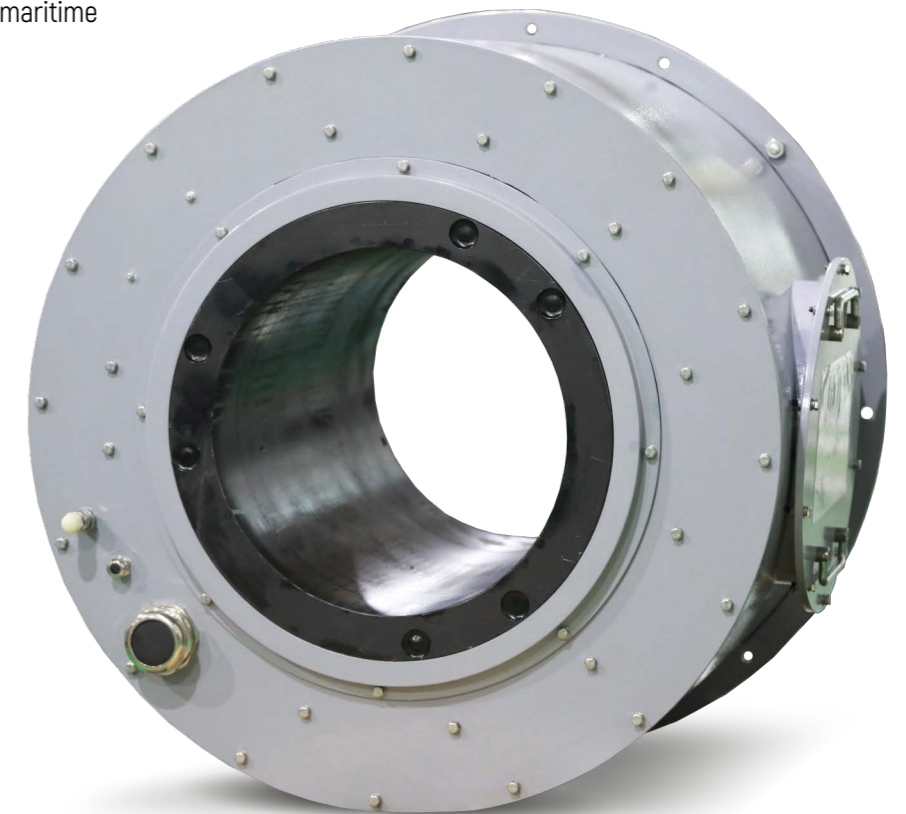


MEDIUM SIZE SLIP RING WITH MASSIVE FLANGE

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

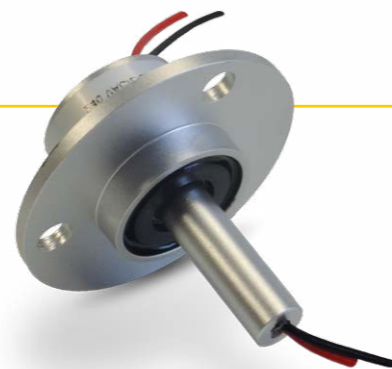
LARGE SLIP RING FOR MARITIME APPLICATIONS

- 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

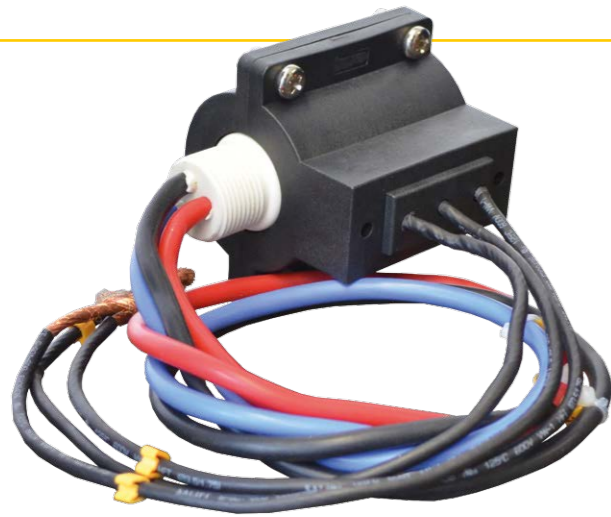
- Aluminium rotor flange with customized boreholes
- Flange thickness 13mm
- Protection degree IP65



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



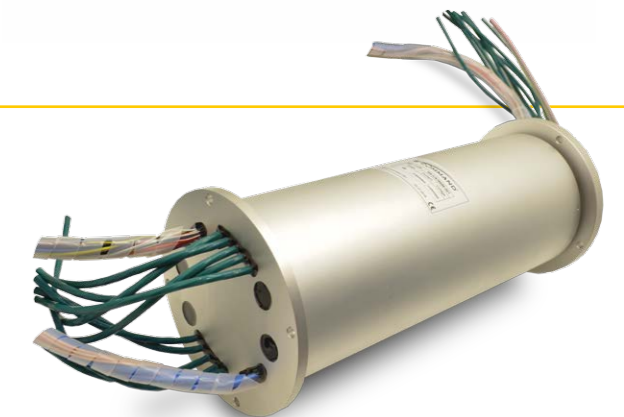
MINIATURE SLIP RING WITH CUSTOMIZED FLANGE

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



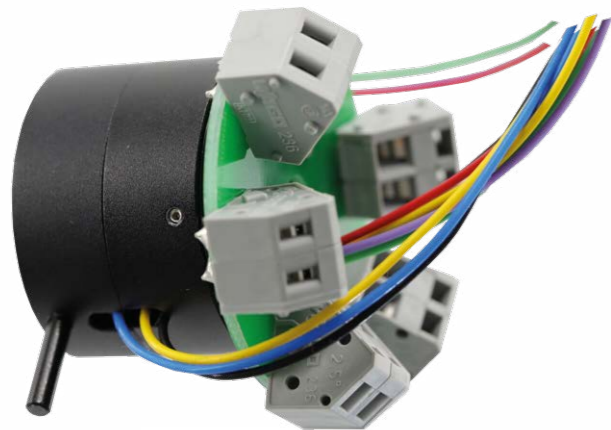
LARGE METAL HOUSING WITH POWER / DATA TRANSMISSION

- 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



Notes

Request Form Slip Rings



Please fill in all fields below with as much information about your application as possible. Handing over maximum mechanical and electrical information available makes order creation easier for us. If available you can also provide circuit diagrams or 2D/3D files of the mounting position. If you have any questions about this form please contact us.

Company Name Contact

Address Position

..... Phone

City Post Code Fax

Country E-mail

Application area

Project name Annual qty (PCS)

New development Replacement existing solution Repair / maintenance

Application description (How does slip ring work):

.....

USING ENVIRONMENT

Indoor High vibration Temperature range

Outdoor High humidity IP degree (min.) Altitude

Other requirements:

MECHANICAL PERFORMANCE

Working speed rpm Installation method Horizontal Vertical

Max speed rpm Fixation Shaft Flange

Operating frequency Through-bore Yes No

Max. Outer Diameter mm Housing material

Min. Inner Diameter mm Max. pressure (air, liquid) Bar

Max. Length mm Wire length Rotor mm Wire length Stator mm

Other requirements:

(or drawings in attachment)

ELECTRICAL PERFORMANCE

| No. of Rings | Current [amps] | | Working Volts | Contact Material | Data Protocol (Fieldbus) | Gas / Fluidic Transmission | Others |
|--------------|----------------|-----|---------------|------------------|--------------------------|----------------------------|--------|
| | Normal | Max | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Signal requirements:



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