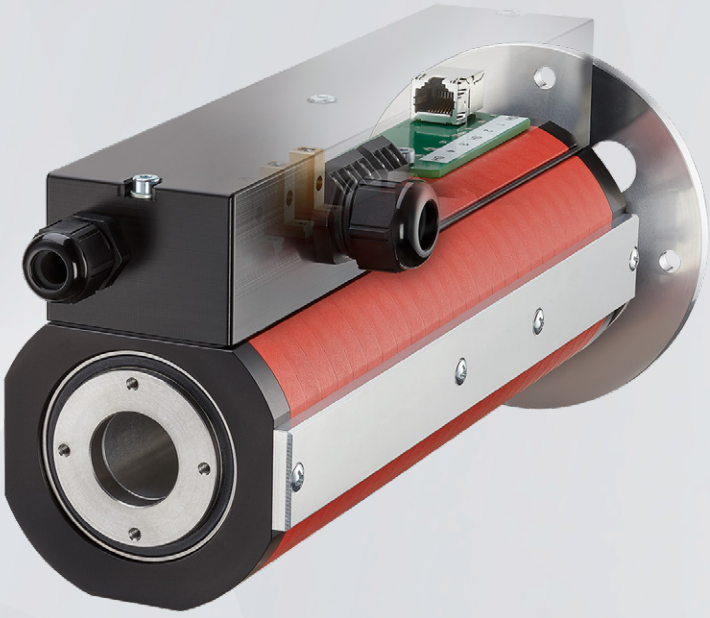
UP TO 24 A, 400 V AND 1 GBIT/S

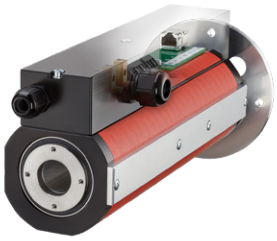


SLIP RINGS – BASE LINE

COMPACT DESIGNS FOR STANDARD APPLICATIONS

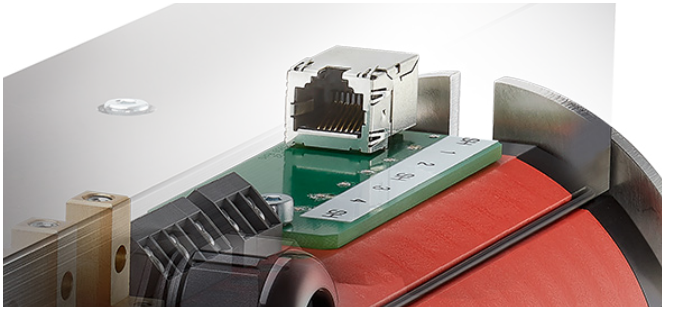
Slip ring platform for standard applications

The modular slip rings of the "Base Line" are designed for a free usable hollow shaft of up to 30 mm or flange mounting. In addition, any form of customer-specific adaptation is possible, both mechanically and electrically.

			
	SR060E	**SR085 / SR085IE**	**SR120**
Features	• Modular design • Factory pre-wiring • Optionally with customized housing connector • Also available in UL version	• Modular design in modular system • Flange or hollow shaft design • Extremely robust GRP housing for industrial use • Long service life and long maintenance cycles • Real-time bus capable	• Compact design with metal housing • Flange or hollow shaft design • Transmission of Ethernet, signal, power, pneumatic and hydraulic • Customizable • Low maintenance
Hollow shaft	**max. 25 mm**	**max. 30 mm**	**max. 30 mm**
Power, signal and data channels	max. 2 signal channels max. 3 power channels	max. 20 power, signal and/or data channels for free configuration	> 20 power, signal and/or data channels for free configuration
Power transmission	**max. 20 A / 240 V** • Direct or alternating current • One or three-phase, motor or heating current	**max. 25 A / 400 V** • Direct or alternating current • One or three-phase, motor or heating current	**max. 25 A / 400 V** • Direct or alternating current • One or three-phase, motor or heating current
Signal transmission	**max. 5 A, 48 VDC / 60 VAC** • Digital switching signals (I/O) • Thermocouple, PT100/1000, analog signals	**max. 5 A, 48 VDC / 60 VAC** • Digital switching signals (I/O) • Thermocouple, PT100/1000, analog signals	**max. 5 A, 48 VDC / 60 VAC** • Digital switching signals (I/O) • Thermocouple, PT100/1000, analog signals
Data transmission	–	• Data module for I4.0 compatibility (e. g. I/O-Link, Powerlink, SPE, EtherCAT) • Max. 100 Mbit/s for Fast Ethernet transmission (100BASE-TX)	• Data module for I4.0 compatibility (e. g. I/O-Link, Powerlink, SPE, EtherCAT) • Max. 100 Mbit/s for Fast Ethernet transmission (100BASE-TX) • 1 Gbit/s for Gigabit transmission (1000BASE-TX)
Media feedthrough	–	**Air:** Standard tube diameter 8, 10, 12 mm	**Air:** Standard tube diameter 8, 10, 12 mm or customer specific **Liquids:** Single or multi-channel according to customer specification

“High-end“ transmission for Industry 4.0 / IIoT

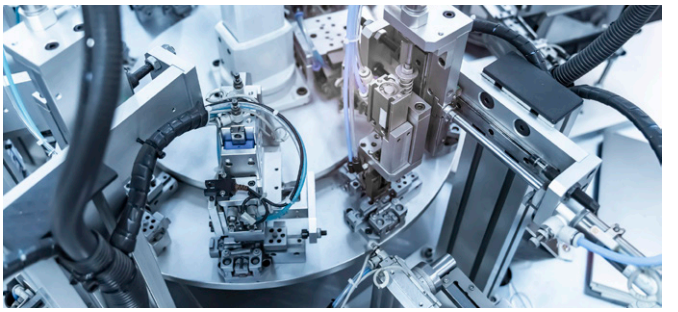
The new slip ring platform “Base Line“ fully supports the customer-side implementation of Industry 4.0 / IIoT concepts. For this purpose, Kübler slip rings are equipped with a transmission module for data rates of up to 1 Gbit/s. This operates completely without electronic components and thus enables interference-free, reliable and direct transmission. The Ethernet module is a bus-independent and cost-optimized solution for all common transmission protocols.



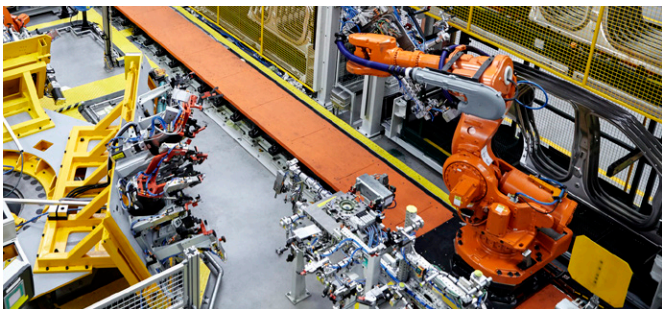
EtherNet/IP · PROFINET · EtherCAT Conformance tested · PROFIBUS · CANopen · SAE J1939 · IO-Link · Modbus · and many more

Application examples

SR060E – Numerous applications in Flow Pack systems
- Transmission of the heating current
- Feedback of the temperature sensor
- Plug-in terminals or housing plug (ECM module)



SR085 – Plants with rotary table or inspection systems
- Compact, robust design with extreme operating life
- Hollow shaft up to 30 mm or flange mounting
- Optional media feedthrough



SR085IE – Plastic welding machines, process automation
- Fast Ethernet up to 100 MBit/s
- Easy mounting with cable outlet or plug connector
- Optional media feedthrough

SR120 – Filling and capping systems for liquids
- High level of customization with variable installation options
- Fast Ethernet (100 MBit/s) and Gigabit Ethernet (1 GBit/s)
- Compact, robust design with high customer orientation

SR060E – Compact design

The SR060E is a compact, economical slip ring for up to 3 power and 2 signal transmissions. New innovative contact materials ensure long service life and extremely low-maintenance operation. The round shape with smooth surfaces and high protection class allows easy cleaning.

- Dimensions 60 x 98 mm
- Can be used as a pair starting from just 60 mm shaft distance
- Various component configurations for the transmission paths, max. 3 x power and 2 x signal transmission
- Easily accessible connections
- Standard version V100 with power current up to 20 A
- Version V200 with plug connectors for power and signal connections

SR120 – Modular design

The slip ring SR120 is ideal for applications requiring high transmission rates. The three chamber system allows parallel transmission of power, signals and data up to 1 Gbit/s.

- Reliable thanks to interference-proof transmission
- Transmission of Ethernet, signal, power, pneumatics and hydraulics
- Innovative contact technology, low-maintenance and durable
- Fieldbus or Ethernet up to 1 Gbit/s

SR085 – Modular design

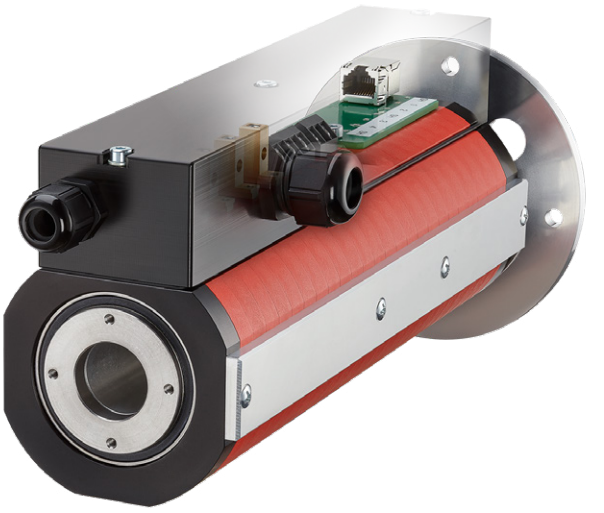
The SR085 is designed in a modular system for an optional combination of power and signal/data channels.

- Robust GRP housing (polycarbonate with glass fiber reinforcement) 30% glass fiber content for industrial use
- Long service life and long maintenance cycles
- Two-chamber system for power and signal transmission
- Labyrinth seal
- High vibration resistance
- Fieldbus signals such as Profibus, CANopen etc. up to 12 Mbit/s

SR085IE – For Industrial Ethernet transmission

For Industry 4.0 / IIoT concepts.
Expansion of the standard size 85 with an integrated Fast Ethernet module that enables a transmission rate of up to 100 Mbit/s. The connection for data transmission is made as standard via a CAT5e cable with RJ45 plug connection. Special customer-specific solutions can also be implemented on request, such as M-type industrial connectors of various codings and designs.

- Optional Ethernet module for transmission of all common Industrial Ethernet protocols
- Transmission of Industrial Ethernet up to 100 Mbit/s
  - Fast connection via RJ45 connector with CAT5e cable
  - Quick and easy replacement by user



Technical data

Contact resistance power channels signal / data channels	 ≤ 1 Ohm (dynamic) ≤ 0.1 Ohm (dynamic)
Insulation resistance	10^3 MOhm, at 500 V DC
Dialectric strength	1000 V eff. (60 sec.)
Maintenance cycles	Maintenance free (if necessary all 100 million revolutions)
Operating temperature	-35 °C ... +85 °C [-31 °F ... +185 °F]
Protection acc. to EN 60529	Up to IP64, higher on request

Approvals

CE compliant in accordance with Low Voltage Directive	2014/35/EU
UKCA compliant in accordance with Low Voltage Regulations	S.I. 2016/1101

Twisted Pair Ethernet standards

Name	**10BASE-T**	**100BASE-TX**	**1000BASE-T**
Speed	10 Mb/s	100 Mb/s	1 Gb/s
Standard	802.3i	802.3u	802.3ab
Wires used	2 twisted pairs	2 twisted pairs	4 twisted pairs
Comments	Runs over four wires on a Category 3 or Category 5 cable.	CAT5 copper cabling with two twisted pairs.	At least Category 5 cable, with Category 5e strongly recommended copper cabling with four twisted pairs. Each pair is used in both directions simultaneously.

Kübler Group
Fritz Kübler GmbH
Schubertstrasse 47
78054 Villingen-Schwenningen
Germany

Phone +49 7720 3903-0
Fax +49 7720 21564
info@kuebler.com

kuebler.com

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