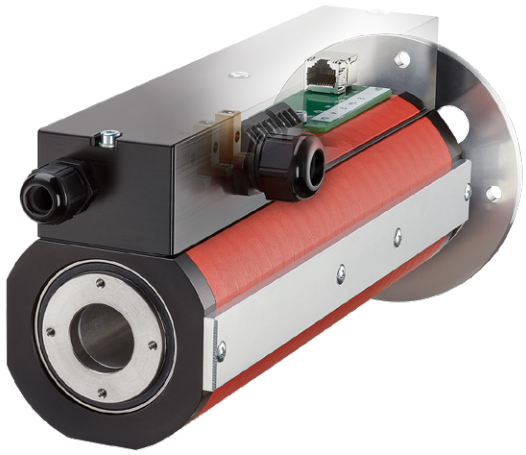
Modular | **Industrial Ethernet – 100 MBit/s** | **SR085IE/SR085SE**



For Industry 4.0 / IIoT concepts.

Reliable transmission of Industrial Ethernet is now also possible in the 85 mm size.

For this purpose, the SR085IE/SR085SE slip rings from Kübler have been expanded with a Fast Ethernet module that enables a transmission rate of up to 100 MBit/s. The connection for data transmission can be made via a shielded two-wire twisted-pair Ethernet cable. Customer-specific special solutions can also be implemented on request, such as M-type industrial connectors.

EtherNet/IP · Single Pair Ethernet System Alliance · EtherCAT · PROFINET · CANopen · SAE J1939 · IO-Link · PROFIBUS and many more

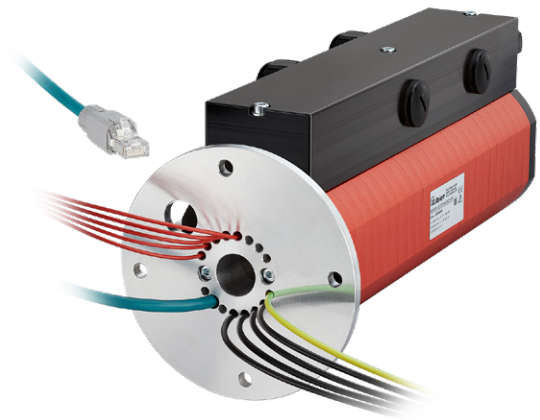
Features

- Optional Ethernet module for transmission of all common Industrial Ethernet protocols.
- Robust GFK housing in modular design.
- Reliable transmission of loads up to 25 A.
- Flange mounting or simple plug-on via a hollow shaft.

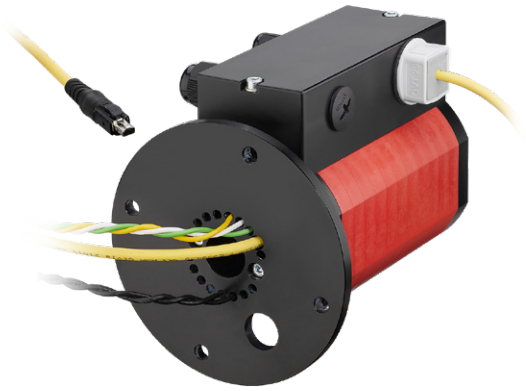
Benefits

- Transmission of Industrial Ethernet up to 100 Mbit/s
  - Fast connection via RJ45 or M12 connector (stator side only) with CAT5e cable
  - Quick and easy replacement by user
- Individual configuration for all applications.
- Prepared for a wide range of applications even with high current load.
- The application determines the mechanical connection - the slip ring adapts.

Standard Fast Ethernet transmission 100 Mbit/s



Fast Ethernet transmission with SPE (Single-Pair-Ethernet) 100 MBit/s



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Order code

SR085 XX - 00 - XX - XX - X 0 X X 2 - V100

Type: SR085 | a: XX | b: 00 | c: XX | d: XX | e: X | f: 0 | g: X | h: X | i: 2 | k: V100

a *Ethernet transmission*
IE = four wire Ethernet - 100BASE-TX to IEEE 802.3
SE = two wire SPE - 100BASE-T1 to IEEE 802.3 bw

b *Type of mounting*
00 = flange mounting
(hollow shaft on request)

c *Number of signal/data channels*
(0, 2, 4, 6, 8, 10)
00 = no signal/data channels
02 = 2 signal/data channels
...
10 = 10 signal/data channels
(other options on request)

d *Number of load channels*
(0, 2, 4, 6, 8, 10)
02 = 2 load channels
04 = 4 load channels
06 = 6 load channels
L3 = 3 load channels + ground PE
L4 = 4 load channels + ground PE
(others on request)

e *Max. load current*
0 = no load channel
1 = 16 A, 240 V AC/DC
2 = 25 A, 240 V AC/DC
3 = 10 A, 400 V AC/DC
4 = 20 A, 400 V AC/DC

f *Mounting position*
0 = any

g *Contact material for signal/data channels*
0 = no signal channels
3 = silver / precious metal
(other options on request)

h *Media lead-through*
0 = none
C = air, rotatable connector
Flange mounting for 12 mm tube
(others on request)

i *Protection rating*
2 = IP64

k *Version number (options)*
V100 = standard

Technical data [1]

Overall length		dep. on the number of transmission paths
Flange diameter		120 mm [4.72“]
Hollow shaft		on request
Type of connection	stator	screw terminal
	rotor	single wires, 1 m [3.28´] (towards the assembly flange)
Voltage/current loading		
	load channels	240 V AC/DC, max. 16 A (order option 1) 240 V AC/DC, max. 25 A (order option 2) 400 V AC/DC, max. 10 A (order option 3) 400 V AC/DC, max. 20 A (order option 4)
	signal channels	48 V AC/DC, max. 2 A
Contact resistance		
	load channels	≤ 1 Ohm (dynamic) [2]
	signal / data channels	≤ 0.1 Ohm (silver / precious metal) [3]
Insulation resistance		10^3 MOhm, at 500 V DC
Dialectric strength		1000 V eff. (60 sec.)
Speed max. (signal / data channels)		800 min^{-1}, up to 10 channels (depends on installation position and numbers of channels)
Service life (signal / data channels)		typ. 500 million revolutions [4] (at room temperature) depends on installation position
Maintenance cycles		first maintenance after 50 million revolutions, all further maintenance intervals after 100 million revolutions
Maintenance		contact oil not required
Material pairing		
	load channels	copper / brass
	signal / data channels	silver / precious metal
Operating temperature		-35 °C ... +85 °C [-31 °F ... +185 °F]
Protection acc. to EN 60529		max. IP64
Transmission paths		max. 13 (> 13 on request)

Rotatable connector, air

Air pressure max.	10 bar (150 psi)
Speed max.	up to 800 min^{-1}
For tube diameter	8 mm ... 12 mm [0.31 ... 0.47“]

Approvals

CE compliant in accordance with
Low Voltage Directive 2014/35/EU

1) Data correspond to typical values. However, these may vary considerably depending on the installation situation and application.
2) Voltage measurement, ambient temperature, DC series connection, ohmic load, min. 4 A test current.
3) 2-wire resistance measurement, ambient temperature, 6.5-digit digital multimeter or similar, values without testing cable.
4) Typical values, may vary considerably depending on installation situation and application.

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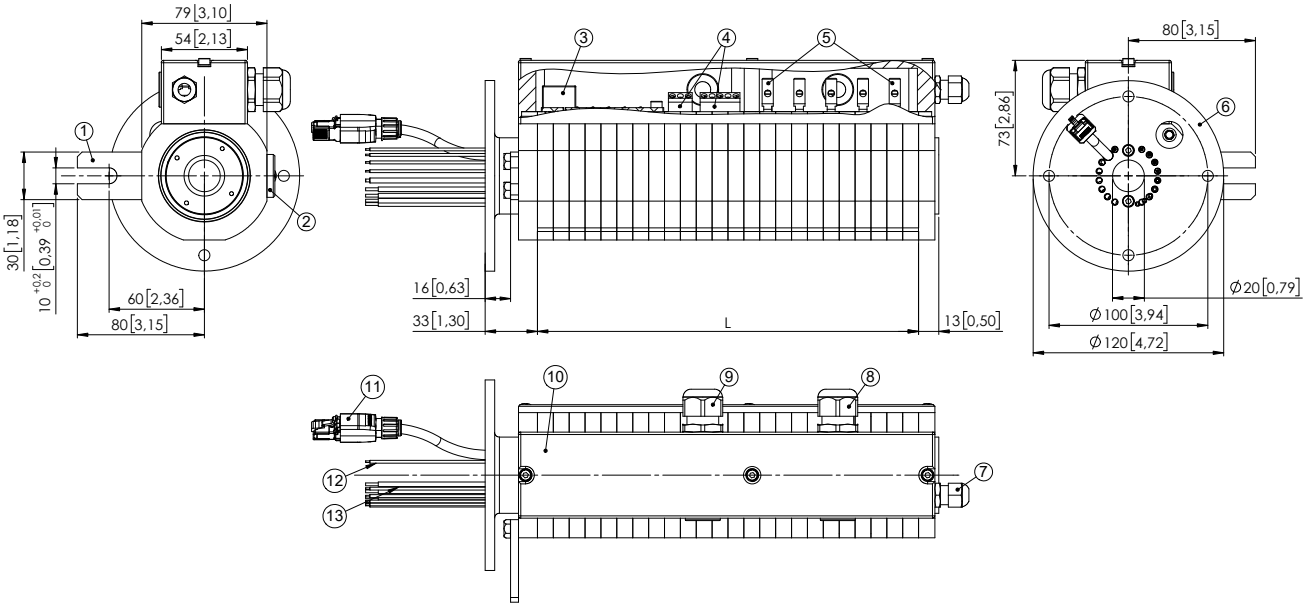
Dimensions

Dimensions in mm [inch]

Version with flange mounting

Example: SR085IE-00-05-05-42302-V100
(Figure with data, signal and load transfer)



1 – Torque stop
2 – Maintenance window
3 – RJ45 socket
4 – Terminal clamp for signal transmission
5 – Terminal clamp load transmission
6 – Mounting flange
7 – Cable gland for data cable
8 – Cable gland for load cable
9 – Cable gland for signal transmission
10 – Stator protection cover
11 – Data cable with RJ45 connector 1 m
(Also with M12 plug connector on stator side)
12 – Stranded wire for signal transmission 1 m
13 – Stranded wire for load transmission 1 m

Calculation of the overall length

Additional dimensions L

+ number of signal/data channels (silver / precious metal)	+ 10 mm [0.39“] per data channels
+ number of load channels, order options 1 and 2	+ 10 mm [0.39“] per load channel
+ number of load channels, order options 3 and 4 (10 or 20 A, 400 V)	+ 20 mm [0.79“] per load channel, if only load + 10 mm [0.39“]
+ labyrinth isolation ring for load and signal transmission	+ 10 mm [0.39“]