Slip rings

Compact | **Low-maintenance** | **SR060U**

In general slip rings are used to transmit power, signals or data from a stationary to a rotating platform.

The SR060U 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 level allows easy cleaning.

Compact

- Dimensions 60 x 98 mm.
- Can be used as a pair starting from just 60 mm shaft distance of the sealing rollers.
- Various component configurations for the transmission paths, max. 3 x load and 2 x signal transmission.
- Easily accessible connections.
- Load current up to 16 A.

Low-maintenance

- Maintenance cycles only every 100 million revolutions.
- No contact oil required.
- Easy cleaning – high protection level IP64.

Applications for slip rings

Flowpack and blister packaging machines, robots and handling equipment, rotary tables

Order code

for standard versions

SR060U	-	XX	-	X	-	X	-	X	X	2	-	V100
Type		a		b		c		d	e	f		g

a *Hollow shaft*
20 = ø 20 mm [0.79“]
21 = ø 21 mm [0.83“]
22 = ø 22 mm [0.87“]
24 = ø 24 mm [0.94“]
25 = ø 25 mm [0.98“]
IN = ø 1 inch
(other diameters on request)

b *Number of signal / data channels*
0 or 2

c *Number of load channels*
0, 2 or 3

d *Max. load current*
0 = no load channels
1 = 16 A, 240 V AC/DC

e *Contact material signal / data channels*
0 = no signal / data channels
3 = silver / precious metal

f *Protection*
2 = IP64

g *Version number (options)*
V100 = without option
> V100 = option on request

Technical data

Hollow shaft diameter	up to max. ø 25 mm [0.98“]
Voltage/current loading	
load channels	240 V AC/DC, 50/60 Hz, max. 16 A
signal / data channels	Class 2, 48 V AC/DC, 50/60 Hz, max. 2 A
Contact resistance	
load channels	≤ 1 Ohm (dynamic) [1]
signal / data channels	≤ 0.1 Ohm (silver / precious metal) [2]
Insulation resistance	10^3 MOhm (at 500 V DC)
Dielectric strength	1000 V eff. (60 sec.)
Rated surge strength	U_{imp} = 4kV
Speed max.	500 min^{-1}
Torque	< 0.2 Nm
Type of connection stator [3]	
load channels	flat pin 6.3 x 0.8 mm
signal / data channels	flat pin 2.8 x 0.8 mm
Type of connection rotor [3]	
load channels	M5 connection screws
signal / data channels	M4 connection screws

Service life	typ. 500 million revolutions (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 / bronze
signal / data channels	silver / precious metal
Operating temperature	0 °C ... +45 °C [+32 °F ... +113 °F]
Protection acc. to EN 60529	IP64
UL approval	file no. E364011

1) Voltage measurement, ambient temperature, DC series connection, ohmic load, min. 4 A test current.
2) 2-wire resistance measurement, ambient temperature, 6.5-digit digital multimeter or similar, values without testing cable.
3) For the electrical connection, use marked copper cables terminated with insulated connectors suitable for the application..

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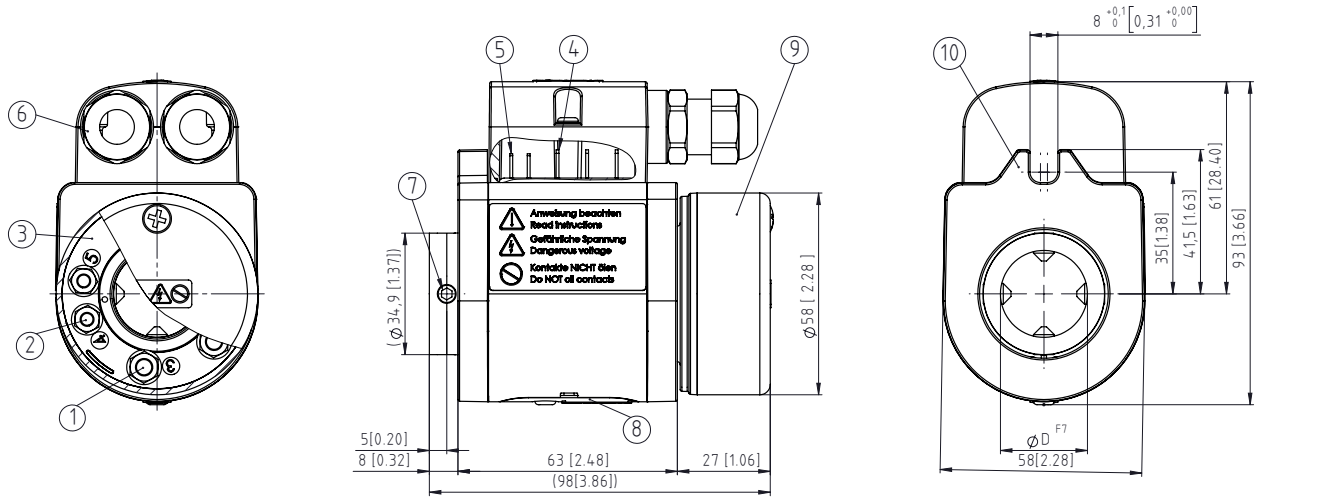
Dimensions

Dimensions in mm [inch]



1 – Screw terminal M5 for load transmission (rotor)
2 – Screw terminal M4 for signal transmission (rotor)
3 – Rotating connection ring
4 – Flat pin connection for power transmission
5 – Flat pin connection for signal transmission
6 – Protective cover for the stator connections with cable gland M16x1.5
7 – 4 x socket set screw DIN 914 M6x8
8 – Maintenance window
9 – Protective cover for rotation connections
10 – Torque stop