

Slip rings

Compact

Power and signal transmission

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 - XX2 - V100

Type

a

b

c

d

e

f

g

a Hollow shaft
20 = \varnothing 20 mm [0.79"]
25 = \varnothing 25 mm [0.98"]
IN = \varnothing 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



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Slip rings

| Compact | Power and signal transmission | SR060U |
|---------|-------------------------------|--------|
|---------|-------------------------------|--------|

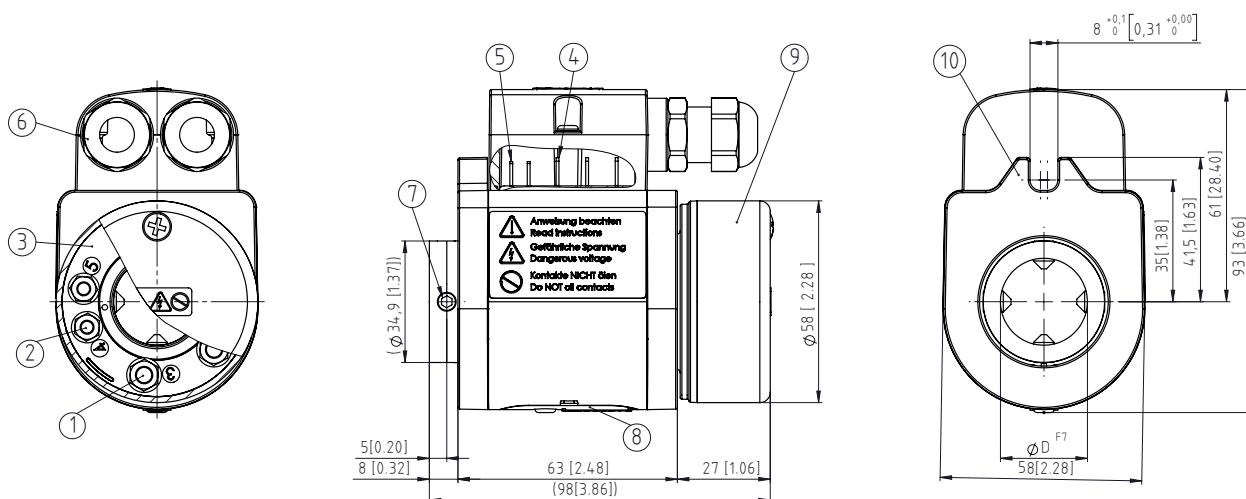
| Technical data | |
|------------------------------------|---|
| Hollow shaft diameter | up to max. \varnothing 25 mm [0.98"] |
| Voltage/current loading | |
| load channels | 240 V AC/DC, 50/60 Hz, max. 16 A |
| signal / data channels | Class 2, 48 V AC/DC, 50/60 Hz, max. 2 A |
| Contact resistance | |
| 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 | $U_{imp} = 4$ kV |
| Speed max. | 500 min ⁻¹ |
| Torque | < 0.2 Nm |
| 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 / brass |
| signal / data channels | silver / precious metal |
| Operating temperature | 0 °C ... +45 °C [+32 °F ... +113 °F] |
| Protection acc. to EN 60529 | IP64 |

| Types of connection | |
|--|-----------------------|
| 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 |

| Approvals | |
|--|------------------|
| UL compliant in accordance with | File-Nr. E364011 |
| CE compliant in accordance with | |
| Low Voltage Directive | 2014/35/EU |
| RoHS Directive | 2011/65/EU |
| UKCA compliant in accordance with | |
| Low Voltage Regulations | S.I. 2016/1101 |
| RoHS Regulations | S.I. 2012/3032 |

Dimensions

Dimensions in mm [inch]



- | | |
|--|--|
| 1 – Screw terminal M5 for load transmission (rotor) | 6 – Protective cover for the stator connections with cable gland M16x1.5 |
| 2 – Screw terminal M4 for signal transmission (rotor) | 7 – 4 x socket set screw DIN 914 M6x8 |
| 3 – Rotating connection ring | 8 – Maintenance window |
| 4 – Flat pin connection for power transmission 6.3 x 0.8 mm | 9 – Protective cover for rotation connections |
| 5 – Flat pin connection for signal transmission 2.8 x 0.8 mm | 10 – Torque stop |

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..