

# Slip rings

<b>Compact</b>	<b>Power and signal transmission</b>	<b>SR060E</b>
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In general slip rings are used to transmit power, signals or data from a stationary to a rotating platform.

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 level allows easy cleaning.

**V200 version:**  
Additional connection options through implementation of M12 connectors for easiest mounting and maintenance.

## 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.
- Standard version V100 with load current up to 20 A.
- Version V200 with plug connectors for load and signal connections.

## 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

SR060E	-XX-	X-	X-	XX2-	VXXX
Type	a	b	c	d e f	g

**a** *Hollow shaft*  
20 =  $\varnothing$  20 mm [0.79"]  
25 =  $\varnothing$  25 mm [0.98"]  
1N =  $\varnothing$  1 Inch  
(others 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  
2 = 20 A, 240 V AC/DC  
(Version V200 max. 12 A)

**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  
V200 = with connectors  
other options on request

**Stock types**  
SR060E-25-2-3-132-V100  
SR060E-25-2-2-132-V100

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Technical data	
<b>Hollow shaft diameter</b>	up to max. $\varnothing$ 25 mm [0.98"]
<b>Voltage/current loading</b>	
load channels	240 V AC/DC, 50/60 Hz, max. 20 A
signal / data channels	48 V AC/DC, 50/60 Hz, max. 2 A
<b>Contact resistance</b>	
load channels	$\leq 1$ Ohm (dynamic) <sup>1)</sup>
signal / data channels	$\leq 0.1$ Ohm (silver / precious metal) <sup>2)</sup>
<b>Insulation resistance</b>	$10^3$ MOhm (at 500 V DC)
<b>Dielectric strength</b>	1000 V eff. (60 sec.)
<b>Speed max.</b>	500 min <sup>-1</sup>
<b>Torque</b>	< 0.2 Nm
<b>Service life</b>	typ. 500 million revolutions (at room temperature) depends on installation position
<b>Maintenance cycles</b>	first maintenance after 50 million revolutions, all further maintenance intervals after 100 million revolutions
<b>Maintenance</b>	contact oil not required
<b>Material pairing</b>	
load channels	copper / brass
signal / data channels	silver / precious metal
<b>Operating temperature</b>	0 °C ... +75 °C [+32 °F ... +167 °F]
<b>Protection acc. to EN 60529</b>	IP64

Approvals	
<b>CE compliant</b> in accordance with	
Low Voltage Directive	2014/35/EU
RoHS Directive	2011/65/EU

Type of connection		
Connection stator	Load channels	Signal / data channels
Version V100	Flat pin 6.3 x 0.8 mm	Flat pin 2.8 x 0.8 mm
Version V200	M12 connector, 4-pin, S coded, male  <div style="text-align: center;"> </div>	M12 connector, 4-pin, A coded, male  <div style="text-align: center;"> </div>
Connection rotor	Load channels	Signal / data channels
Version V100 / V200	M5 connection screws	M4 connection screws

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.

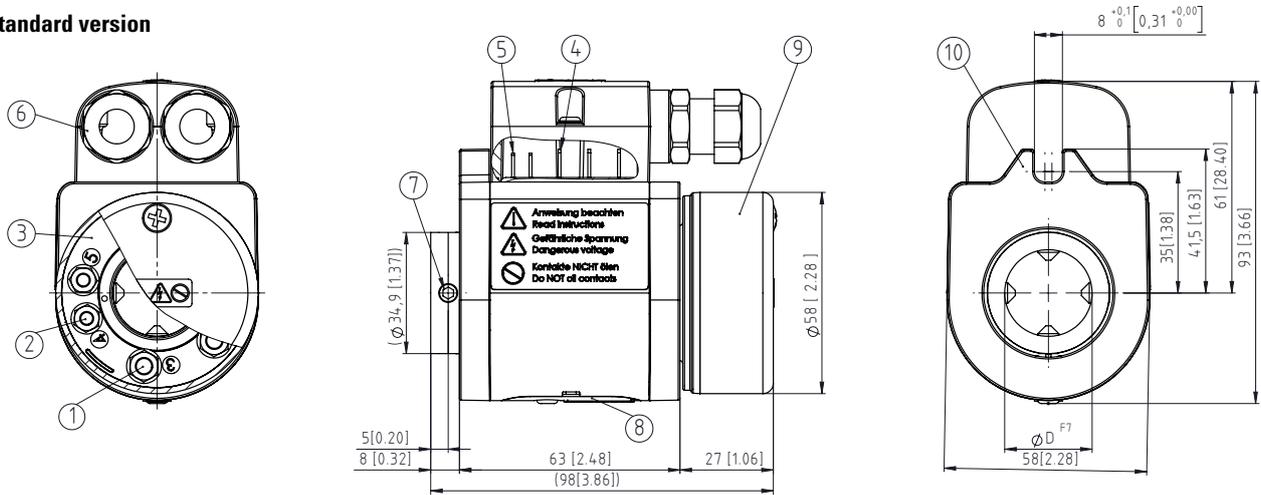
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## Dimensions

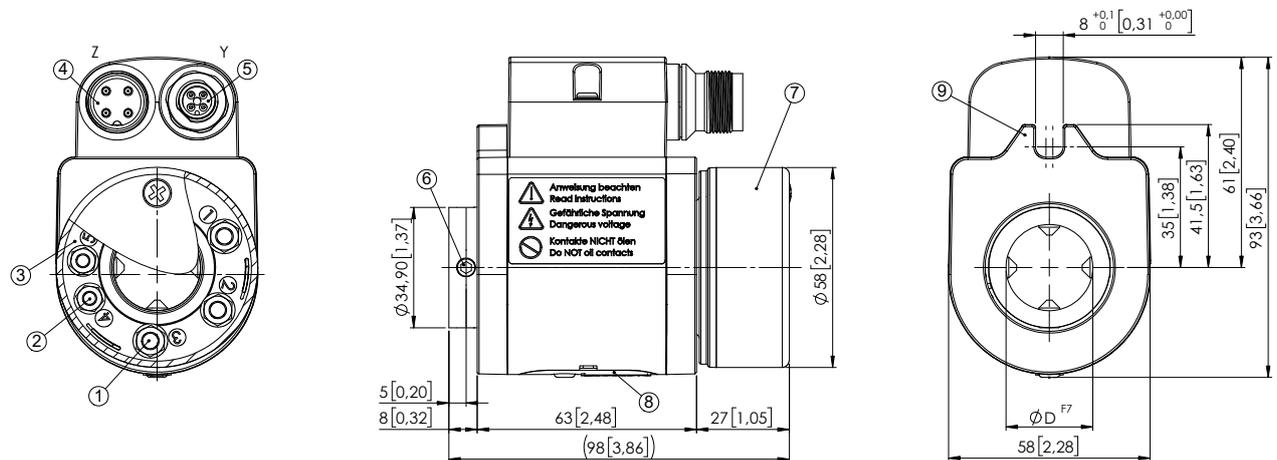
Dimensions in mm [inch]

### Standard version



- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 – Screw terminal M5 for load transmission (rotor)</li> <li>2 – Screw terminal M4 for signal transmission (rotor)</li> <li>3 – Rotating connection ring</li> <li>4 – Flat pin connection for power transmission 6.3 x 0.8 mm</li> <li>5 – Flat pin connection for signal transmission 2.8 x 0.8 mm</li> </ul> | <ul style="list-style-type: none"> <li>6 – Protective cover for the stator connections with cable gland M16x1.5</li> <li>7 – 4 x socket set screw DIN 914 M6x8</li> <li>8 – Maintenance window</li> <li>9 – Protective cover for rotation connections</li> <li>10 – Torque stop</li> </ul> |
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### Version V200



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|--|---|
| <ul style="list-style-type: none"> <li>1 – Screw terminal M5 for load transmission (rotor)</li> <li>2 – Screw terminal M4 for signal transmission (rotor)</li> <li>3 – Rotating connection ring</li> <li>4 – M12 connector, 4-pin, S coded, male</li> <li>5 – M12 connector, 4-pin, A coded, male</li> </ul> | <ul style="list-style-type: none"> <li>6 – 4 x socket set screw DIN 914 M6x8</li> <li>7 – Protective cover for rotation connections</li> <li>8 – Maintenance window</li> <li>9 – Torque stop</li> </ul> |
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