



RZC1-04ZUS-KU0

RZC1

CYLINDER SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	part no.
RZC1-04ZUS-KU0	1059750

Other models and accessories → [www.sick.com/RZC1](http://www.sick.com/RZC1)



### Detailed technical data

#### Features

<b>Cylinder type</b>	C-slot
<b>Cylinder types with adapter</b>	SMC rail CDQ2 SMC rail ECDQ2
<b>Housing length</b>	26.3 mm
<b>Switching output</b>	Reed
<b>Switching frequency</b>	500 Hz
<b>Output function</b>	NO
<b>Electrical wiring</b>	AC/DC 2-wire
<b>Enclosure rating</b>	IP67 <sup>1)</sup>

<sup>1)</sup> According to EN 60529 (IP 67 / IP 68).

#### Mechanics/electronics

<b>Supply voltage</b>	5 V AC/DC ... 120 V AC/DC
<b>Rated insulation voltage <math>U_i</math></b>	125 V
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>	2.5 kV
<b>Power consumption</b>	5 mA, without load
<b>Voltage drop</b>	< 3.2 V
<b>Continuous current <math>I_a</math></b>	≤ 50 mA
<b>Switching capacity</b>	≤ 6 W
<b>Protection class</b>	II <sup>1)</sup> 2)
<b>Overrun distance, typ.</b>	7 mm <sup>3)</sup>
<b>Reproducibility</b>	≤ 0.1 mT <sup>4)</sup>
<b>Status indicator LED</b>	Yes
<b>Teach-in</b>	No

<sup>1)</sup> The sensor may only be used when mounted as a complete unit in the slot.

<sup>2)</sup> Overvoltage category II.

<sup>3)</sup> Distance covered by the encoder magnet while the sensor outputs a switching signal.

<sup>4)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

<b>Ambient operating temperature</b>	-30 °C ... +80 °C
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>EMC</b>	According to EN 60947-5-2
<b>Connection type</b>	Cable, 2-wire, stripped, 2 m
<b>Connection type Detail</b>	
Conductor cross section	0.09 mm²
Cable diameter	Ø 2.2 mm
Bending radius	With fixed installation > 2 x cable diameter For flexible use > 5 x cable diameter
Cable outlet	Axial
<b>Material</b>	
Housing	Plastic, PA, strengthened
Cable	PUR

- 1) The sensor may only be used when mounted as a complete unit in the slot.  
2) Overvoltage category II.  
3) Distance covered by the encoder magnet while the sensor outputs a switching signal.  
4) Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

### Safety-related parameters

<b>MTTF<sub>D</sub></b>	6,415 years
<b>DC<sub>avg</sub></b>	0 %
<b>T<sub>M</sub> (mission time)</b>	20 years
<b>B<sub>10D</sub></b>	30,000,000 Switching cycles <sup>1)</sup>

- 1) Only for devices containing electro-mechanical components. In this case, the MTTF<sub>D</sub> value of the entire device must be calculated from the given B<sub>10D</sub> value, the number of switching cycles and the given MTTF<sub>D</sub> value.

### Certificates

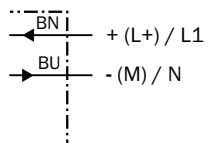
<b>EU declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China RoHS</b>	✓

### Classifications

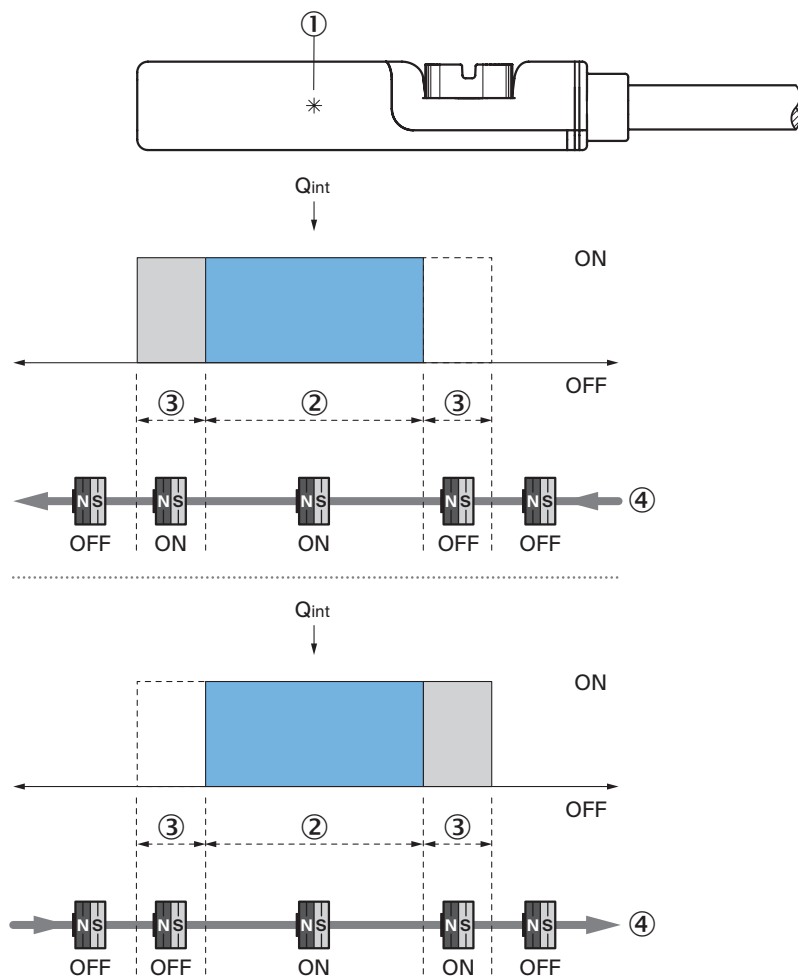
<b>ECLASS 5.0</b>	27270104
<b>ECLASS 5.1.4</b>	27270104
<b>ECLASS 6.0</b>	27270104
<b>ECLASS 6.2</b>	27270104
<b>ECLASS 7.0</b>	27270104
<b>ECLASS 8.0</b>	27270104
<b>ECLASS 8.1</b>	27270104
<b>ECLASS 9.0</b>	27270104
<b>ECLASS 10.0</b>	27270104
<b>ECLASS 11.0</b>	27270104
<b>ECLASS 12.0</b>	27274301

<b>ETIM 5.0</b>	EC002544
<b>ETIM 6.0</b>	EC002544
<b>ETIM 7.0</b>	EC002544
<b>ETIM 8.0</b>	EC002544
<b>UNSPSC 16.0901</b>	39122230

### Connection diagram Cd-037



### Functional principle Overrun distance

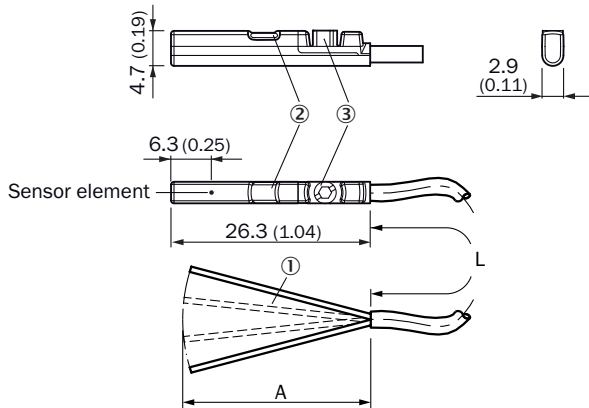


Note: Sensor housing may differ; representation corresponds to “NO contact” output function; overrun distance = switching point width + hysteresis

- ① Position sensor element
- ② Width of the switching point

- ③ Hysteresis
- ④ Direction of movement of the magnet

## Dimensional drawing Cable



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fixing screw SW 1.5

		<b>L</b>	<b>A</b>	
1059746	RZC1-04ZRS-KU0	2 m	31.5	3
1059750	RZC1-04ZUS-KU0	2 m	31.5	2
1065397	RZC1-04ZUS-KU0S01	2 m	31.5	2
1070035	RZC1-04ZUS-KUAS02	3 m	31.5	2
1059749	RZC1-04ZRS-KUB	5 m	31.5	3
1073286	RZC1-04ZUS-KUBS03	5 m	31.5	2

### Recommended accessories

Other models and accessories → [www.sick.com/RZC1](http://www.sick.com/RZC1)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 1 mm ... 130 mm, ambient temperature min -30 °C max 80 °C</li> <li><b>Material:</b> Stainless steel, Aluminum</li> <li><b>Details:</b> Stainless steel, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC1-130	2077686
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-12	2077673
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 1 mm ... 25 mm, ambient temperature min -30 °C max 80 °C</li> <li><b>Material:</b> Stainless steel, Aluminum</li> <li><b>Details:</b> Stainless steel, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC1-25	2077685
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-16	2077672
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-20	2077671
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-25	2077670
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-32	2077669
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-40	2077668
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-50	2077667
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C</li> <li><b>Material:</b> Plastic, Aluminum</li> <li><b>Details:</b> Plastic, Aluminum</li> <li><b>Packing unit:</b> 1 piece</li> <li><b>Suitable for:</b> C-slot</li> </ul>	BEF-KHZ-RC-63	2077666
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for integrated profile cylinder/tie-rod cylinder</li> <li><b>Material:</b> Zinc diecast</li> <li><b>Details:</b> Zinc diecast</li> <li><b>Items supplied:</b> Mounting hardware included</li> </ul>	BEF-KHZ-PC1	2076170



## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)