



## RZC1-04ZRS-KQ0

RZC1

**CYLINDER SENSORS**

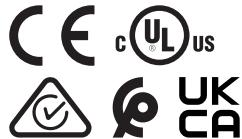
**SICK**  
Sensor Intelligence.



## Ordering information

Type	part no.
RZC1-04ZRS-KQ0	1059745

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 3-wire
<b>Enclosure rating</b>	IP68 <sup>1)</sup>

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

## Mechanics/electronics

<b>Supply voltage</b>	5 V AC/DC ... 30 V AC/DC
<b>Power consumption</b>	5 mA, without load
<b>Voltage drop</b>	< 0.5 V
<b>Continuous current <math>I_a</math></b>	$\leq$ 500 mA
<b>Switching capacity</b>	$\leq$ 10 W
<b>Protection class</b>	III
<b>Overrun distance, typ.</b>	7 mm
<b>Reproducibility</b>	$\leq$ 0.1 mT <sup>1)</sup>
<b>Status indicator LED</b>	Yes
<b>Teach-in</b>	No
<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

<sup>1)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

<b>Connection type</b>	Cable with connector M12, 3-pin, 0.3 m
<b>Connection type Detail</b>	
Conductor cross section	0.09 mm <sup>2</sup>
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
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Supply voltage U<sub>B</sub> and constant ambient temperature Ta.

#### Safety-related parameters

<b>MTTF<sub>D</sub></b>	41,230 years
<b>DC<sub>avg</sub></b>	0 %
<b>T<sub>M</sub> (mission time)</b>	20 years

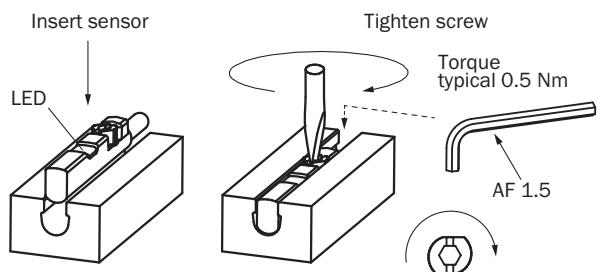
#### Certificates

<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓
<b>China-RoHS</b>	✓
<b>cULus certificate</b>	✓

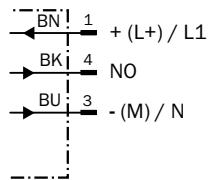
#### Classifications

<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

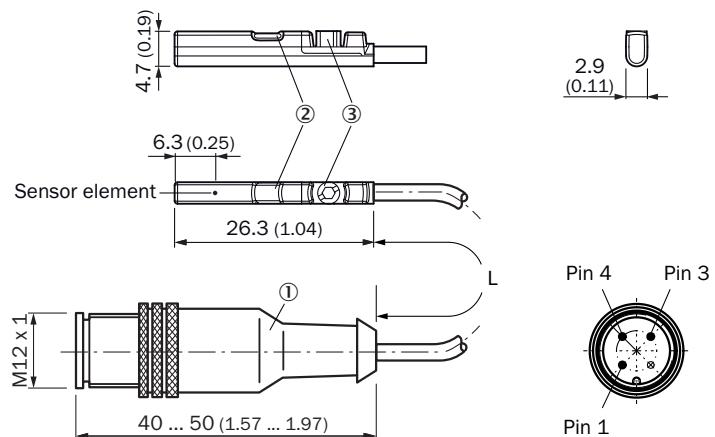
## Installation note



## Connection diagram Cd-036



## Dimensional drawing Cable with connector M12, with knurled nut



Dimensions in mm (inch)

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

Part no.	Type	L	Number of cores
1059745	RZC1-04ZRS-KQ0	300 mm	3

## 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

	<b>Brief description</b>	<b>Type</b>	<b>part no.</b>
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A13-020UB1XLEAX	2095604
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A13-050UB1XLEAX	2095605
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A13-020UB1XLEAX	2095752
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A13-050UB1XLEAX	2095753
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 0.6 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A13-C60UB1XLEAX	2145767
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 3 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A13-030UB1XLEAX	2145769
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YF2A13-010UB1XLEAX	2145768
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 0.6 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A13-C60UB1XLEAX	2145770
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A13-010UB1XLEAX	2145771
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 3-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 3 m, 3-wire, PUR, halogen-free</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul>	YG2A13-030UB1XLEAX	2145772

## 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."**

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