



RZT7-03ZUS-KR0

RZT7

CYLINDER SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
RZT7-03ZUS-KR0	1070857

Other models and accessories → www.sick.com/RZT7



Detailed technical data

Features

Cylinder type	T-slot
Cylinder types with adapter	Profile cylinder Tie rod cylinder Round body cylinder Dovetail groove cylinder SMC rail CDQ2 SMC rail ECDQ2
Housing length	29.5 mm
Switching output	Reed
Switching frequency	400 Hz
Output function	NO
Electrical wiring	AC/DC 2-wire
Enclosure rating	IP65 ¹⁾ IP67

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	5 V AC/DC ... 30 V AC/DC
Voltage drop	≤ 3.5 V
Continuous current I_a	≤ 100 mA ¹⁾
Switching capacity	≤ 6 W
Protection class	III
Response sensitivity, typ.	3 mT
Overrun distance, typ.	10 mm ²⁾
Reproducibility	≤ 0.1 mT ³⁾
Status indicator LED	Yes

¹⁾ AC/DC.

²⁾ Distance covered by the encoder magnet while the sensor outputs a switching signal.

³⁾ Supply voltage U_B and constant ambient temperature T_a.

Teach-in	No
Ambient operating temperature	-30 °C ... +80 °C
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
EMC	According to EN 60947-5-2
Connection type	Cable with plug M8, 3-pin, with knurled nut, drag chain use, 0.5 m
Connection type Detail	
Conductor cross section	0.14 mm ²
Cable diameter	Ø 2.9 mm
Bending radius	With fixed installation > 8 x cable diameter For flexible use > 12 x cable diameter
Cable outlet	Axial
Material	
Housing	Plastic, Grilamid LVX-65H SST
Cable	PUR
UL File No.	NRKH.E181493 & NRKH7.E181493

¹⁾ AC/DC.

²⁾ Distance covered by the encoder magnet while the sensor outputs a switching signal.

³⁾ Supply voltage U_B and constant ambient temperature T_a .

Safety-related parameters

MTTF_D	23,876 years
DC_{avg}	0 %
T_M (mission time)	20 years
B_{10D}	10,000,000 Switching cycles ¹⁾

¹⁾ Only for devices containing electro-mechanical components. In this case, the MTTF_D value of the entire device must be calculated from the given B_{10D} value, the number of switching cycles and the given MTTF_D value.

Certificates

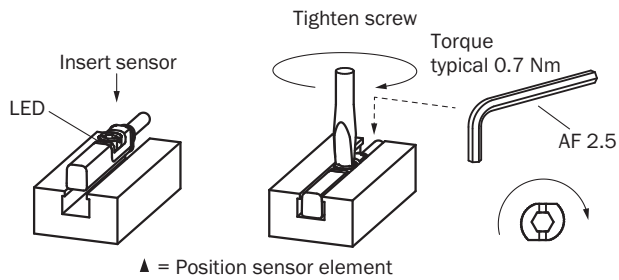
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

Classifications

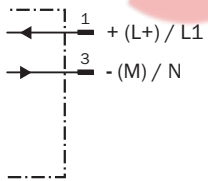
ECLASS 5.0	27270104
ECLASS 5.1.4	27270104
ECLASS 6.0	27270104
ECLASS 6.2	27270104
ECLASS 7.0	27270104
ECLASS 8.0	27270104
ECLASS 8.1	27270104
ECLASS 9.0	27270104

ECLASS 10.0	27270104
ECLASS 11.0	27270104
ECLASS 12.0	27274301
ETIM 5.0	EC002544
ETIM 6.0	EC002544
ETIM 7.0	EC002544
ETIM 8.0	EC002544
UNSPSC 16.0901	39122230

Installation note

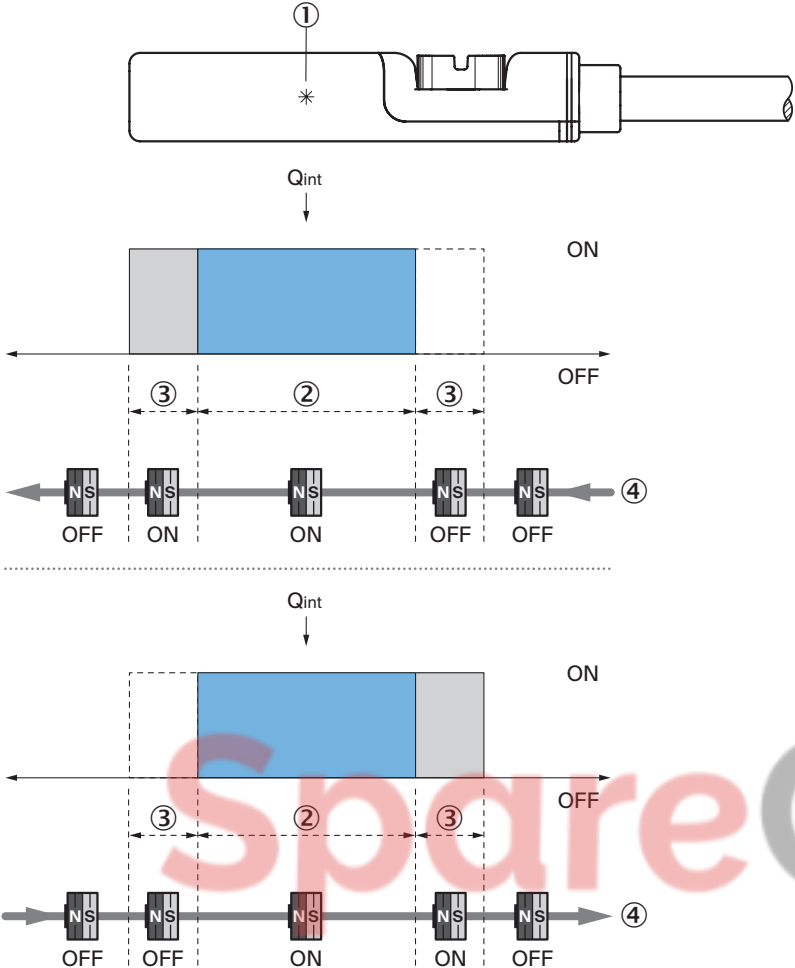


Connection diagram Cd-038



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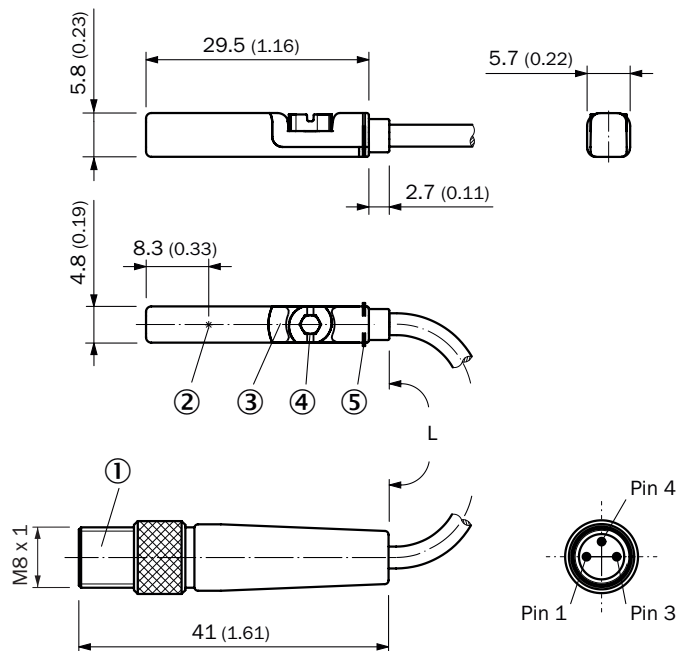
Functional principle Overrun distance



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 with plug M8, with knurled nut



Dimensions in mm (inch)

- ① Connection
- ② Position sensor element
- ③ Display LED
- ④ Fixing screw SW 2.5
- ⑤ retaining ribs

Part no.	Type	L	Number of cores	Supply voltage
1070857	RZT7-03ZUS-KR0	0.5 m	2	5 V AC/DC ... 30 V AC/DC
1070848	RZT7-03ZRS-KR0	0.5 m	3	5 V AC/DC ... 30 V AC/DC
1121860	RZT7-03ZRS-KRDS20	1 m	3	5 V AC/DC ... 30 V AC/DC
1085067	RZT7-03ZRS-KRD	4 m	3	5 V AC/DC ... 30 V AC/DC

Recommended accessories

Other models and accessories → www.sick.com/RZT7

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 130 mm, ambient temperature min -30 °C max 80 °C Material: Stainless steel, Zinc cast Details: Stainless steel, Zinc cast Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT1-130	2077684
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 25 mm, ambient temperature min -30 °C max 80 °C Material: Stainless steel, Zinc cast Details: Stainless steel, Zinc cast Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT1-25	2077682
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 8 mm ... 63 mm, ambient temperature min -30 °C max 80 °C Material: Stainless steel, Zinc cast Details: Stainless steel, Zinc cast Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT1-63	2077683
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 22.4 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT-12	2077681
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 26.6 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT-16	2077680
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 30.6 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT-20	2077679
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 35.7 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT-25	2077678
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 42.9 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece Suitable for: T-slot 	BEF-KHZ-RT-32	2077677
	<ul style="list-style-type: none"> Description: Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C Dimensions (W x H x L): 50.9 m Material: Plastic, Aluminum Details: Plastic, Aluminum Packing unit: 1 piece 	BEF-KHZ-RT-40	2077676

	Brief description	Type	part no.
	<ul style="list-style-type: none"> • Suitable for: T-slot • Description: Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C • Dimensions (W x H x L): 61.8 mm • Material: Plastic, Aluminum • Details: Plastic, Aluminum • Packing unit: 1 piece • Suitable for: T-slot 	BEF-KHZ-RT-50	2077675
	<ul style="list-style-type: none"> • Description: Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C • Dimensions (W x H x L): 73.9 mm • Material: Plastic, Aluminum • Details: Plastic, Aluminum • Packing unit: 1 piece • Suitable for: T-slot 	BEF-KHZ-RT-63	2077674
	<ul style="list-style-type: none"> • Description: Mounting bracket for integrated profile cylinder/tie-rod cylinder • Material: Zinc diecast • Details: Zinc diecast • Items supplied: Mounting hardware included 	BEF-KHZ-PT1	2022702
	<ul style="list-style-type: none"> • Description: Mounting bracket for mounting on SMC rails ECDQ2 (T-slot) • Material: Aluminum • Details: Aluminum • Items supplied: Without mounting hardware 	BEF-KHZ-TT1	2046439
	<ul style="list-style-type: none"> • Description: Mounting bracket for mounting on SMC rails CDQ2 (T-slot) • Material: Aluminum • Details: Aluminum • Items supplied: Without mounting hardware 	BEF-KHZ-TT2	2046440
	<ul style="list-style-type: none"> • Description: Mounting bracket for cylinder with dovetail slot • Material: Aluminum • Details: Aluminum • Items supplied: Without mounting hardware 	BEF-KHZ-ST1	2022703
<p>device protection and care</p>			
	<ul style="list-style-type: none"> • Description: Protective adapter • Material: Zinc diecast • Items supplied: Mounting hardware included • Suitable for: MZT7, RZT7, MZT8 	BEF-SG-MRZT	2077201

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