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DATA SHEET

RZT7-03ZRS-KW0

RZT7
Cylinder sensors

SICK Sensor Intelligence



CYLINDER SENSORS

RZT7-03ZRS-KW0

ORDERING INFORMATION

Type	part no.
RZT7-03ZRS-KW0	1070852

Further device versions and accessories at 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 3-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	≤ 0.1 V [1]
Continuous current I_a	≤ 500 mA [2] ≤ 300 mA [3]
Switching capacity	≤ 6 W

[1] For cable length up to 0.3 m.

[2] DC.

[3] AC.

[4] Distance covered by the encoder magnet while the sensor outputs a switching signal.

[5] Supply voltage U_a and constant ambient temperature Ta.

Protection class	III
Response sensitivity, typ.	3 mT
Overrun distance, typ.	10 mm [4]
Reproducibility	≤ 0.1 mT [5]
Reverse polarity protection	Yes
Status indicator LED	Yes
Teach-in	No
Ambient operating temperature	–30 °C ... +70 °C
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
EMC	According to EN 60947-5-2
Connection type	Cable, 3-wire, stripped, 2 m
Connection type Detail	
Conductor cross section	0.12 mm²
Cable diameter	Ø 2.9 mm
Bending radius	With fixed installation > 10 x cable diameter For flexible use > 15 x cable diameter
Cable outlet	Axial
Material	
Housing	Plastic, Grilamid LVX-65H SST
Cable	PVC
UL File No.	NRKH.E181493 & NRKH7.E181493

[1] For cable length up to 0.3 m.

[2] DC.

[3] AC.

[4] Distance covered by the encoder magnet while the sensor outputs a switching signal.

[5] Supply voltage U_B and constant ambient temperature Ta.

SAFETY-RELATED PARAMETERS

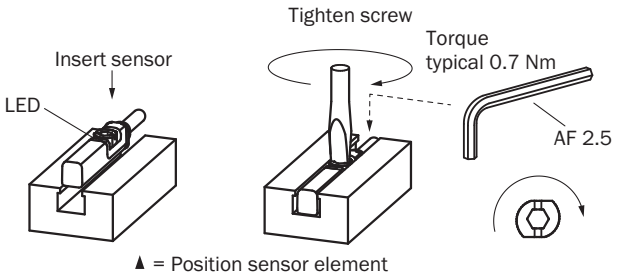
$MTTF_D$	41,230 years
DC_{avg}	0 %
T_M (mission time)	20 years
B_{10D}	10,000,000 Switching cycles [1]

[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.

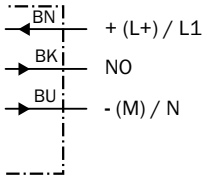
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

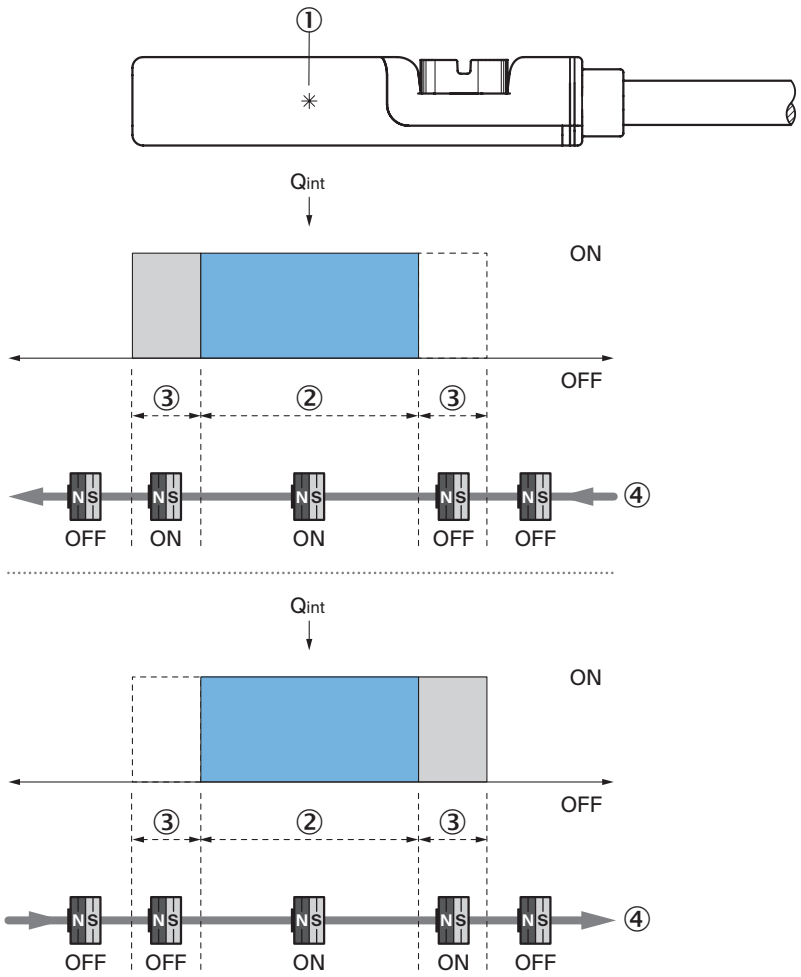
INSTALLATION NOTE



CONNECTION DIAGRAM CD-035



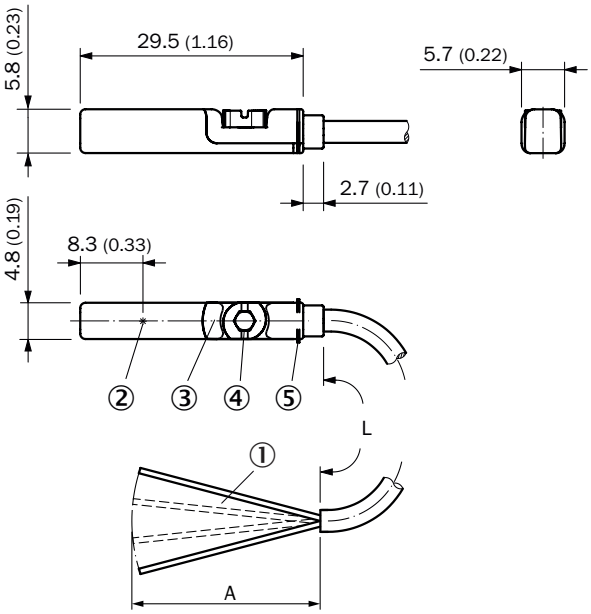
FUNCTIONAL PRINCIPLE OVERRUN DISTANCE



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 Position sensor element
③ Display LED
④ Fixing screw SW 2.5
⑤ retaining ribs

		L	A	
1070861	RZT7-03ZUS-KU0	2 m	31.5	2
1070865	RZT7-03ZUS-KW0	2 m	31.5	2
1070850	RZT7-03ZRS-KU0	2 m	31.5	3
1070852	RZT7-03ZRS-KW0	2 m	31.5	3
1070863	RZT7-03ZUS-KUB	5 m	31.5	2
1070867	RZT7-03ZUS-KWB	5 m	31.5	2
1070851	RZT7-03ZRS-KUB	5 m	31.5	3
1070853	RZT7-03ZRS-KWB	5 m	31.5	3
1070854	RZT7-03ZRS-KWD	10 m	31.5	3

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1070852

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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