



DATA SHEET

MZT8-2V8NS-KUAS31

MZT8
Cylinder sensors

SICK

Sensor Intelligence



CYLINDER SENSORS

MZT8-2V8NS-KUAS31

ORDERING INFORMATION

Type	part no.
MZT8-2V8NS-KUAS31	1092766

Further device versions and accessories at www.sick.com/MZT8



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	24 mm
Switching output	NPN
Switching frequency	1,000 Hz
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ¹⁾ IP69K ²⁾

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

²⁾ According to DIN 40050 (IP 69K).

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Power consumption	10 mA, without load
Voltage drop	≤ 2.2 V
Continuous current I _a	≤ 200 mA
Protection class	III
Time delay before availability	25 ms
Response sensitivity, typ.	2.8 mT

¹⁾ Distance covered by the encoder magnet while the sensor outputs a switching signal.

²⁾ Supply voltage U_s and constant ambient temperature T_a.

Overrun distance, typ.	10 mm ¹⁾														
Hysteresis, typ.	0.7 mT														
Reproducibility	≤ 0.1 mT ²⁾														
Reverse polarity protection	Yes														
Short-circuit protection	Yes														
Status indicator LED	Yes														
Teach-in	No														
Power-up pulse protection	Yes														
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, 3-wire, ferrules, drag chain use, 3 m														
Connection type Detail	<table> <tr> <td>Conductor cross section</td><td>0.14 mm²</td></tr> <tr> <td>Cable diameter</td><td>Ø 2.9 mm</td></tr> <tr> <td>Bending radius</td><td>With fixed installation > 3 x cable diameter For flexible use > 5 x cable diameter</td></tr> <tr> <td>Torsion force</td><td>± 180° / 1 m</td></tr> <tr> <td>Drag chain cycles</td><td>> 2,000,000</td></tr> <tr> <td>Drag chain parameters</td><td>Traversing speed max. 3.3 m/s at 5 m horizontal traversing length Acceleration max. 5 m/s²</td></tr> <tr> <td>Cable outlet</td><td>Axial</td></tr> </table>	Conductor cross section	0.14 mm ²	Cable diameter	Ø 2.9 mm	Bending radius	With fixed installation > 3 x cable diameter For flexible use > 5 x cable diameter	Torsion force	± 180° / 1 m	Drag chain cycles	> 2,000,000	Drag chain parameters	Traversing speed max. 3.3 m/s at 5 m horizontal traversing length Acceleration max. 5 m/s ²	Cable outlet	Axial
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Material	<table> <tr> <td>Housing</td><td>Plastic, PA12</td></tr> <tr> <td>Cable</td><td>PUR</td></tr> </table>	Housing	Plastic, PA12	Cable	PUR										
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UL File No.	NRKH.E181493 & NRKH7.E181493														

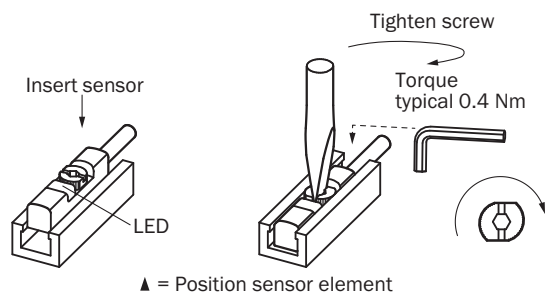
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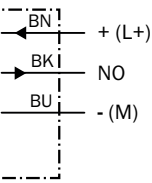
CERTIFICATES

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	✓

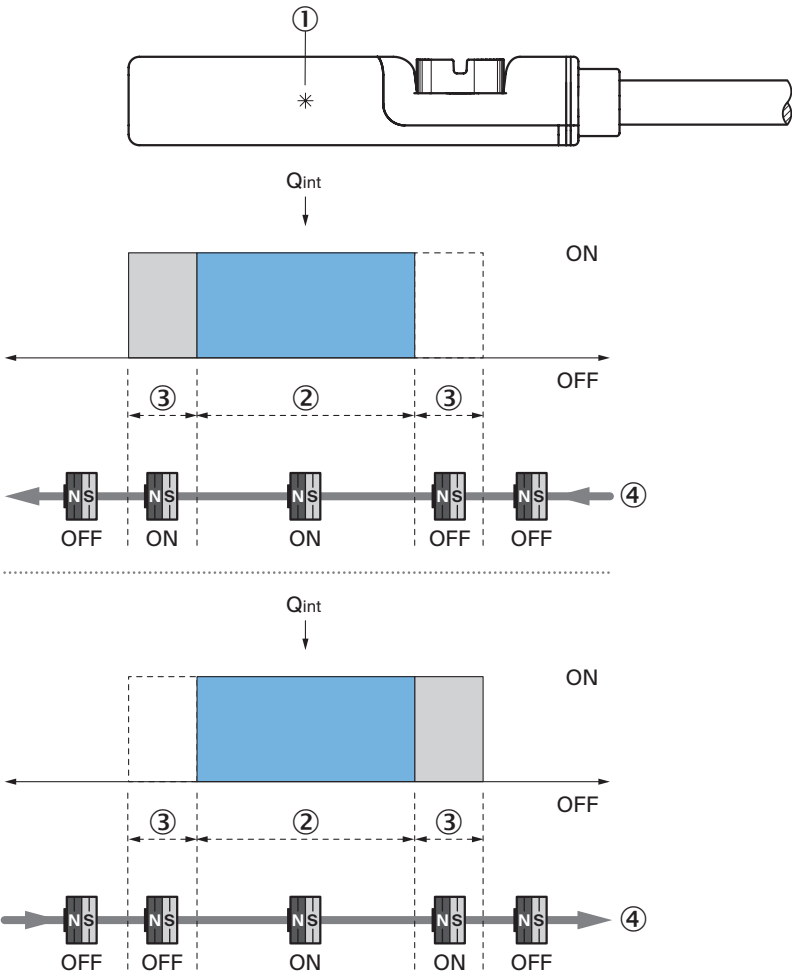
INSTALLATION NOTE



CONNECTION DIAGRAM CD-001



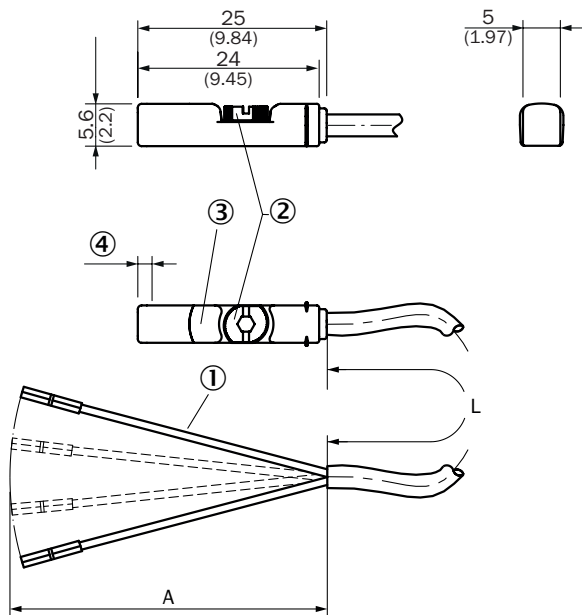
FUNCTIONAL PRINCIPLE OVERRUN DISTANCE



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 Fixing screw SW 2.0
- ③ Display LED
- ④ Sensor element position; short overrun distance (3 mm): 2.25 mm, long overrun distance (9 mm): 1.5 mm

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/1092766



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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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