

The SICK logo is displayed in a bold, blue, sans-serif font. It is centered within a white rectangular box, which is itself centered on a light gray background.

DATA SHEET

MZC2-1V7PS-SU0

MZC2
Cylinder sensors

The SICK logo is shown in a large, bold, blue, sans-serif font. To its right, the words "Sensor Intelligence" are written in a smaller, blue, sans-serif font.



CYLINDER SENSORS

MZC2-1V7PS-SU0

ORDERING INFORMATION

Type	part no.
MZC2-1V7PS-SU0	1099974

Further device versions and accessories at www.sick.com/MZC2



DETAILED TECHNICAL DATA

FEATURES

Cylinder type	C-slot
Preferred manufacturer slot	SMC, PHD, Bimba
Cylinder types with adapter	SMC rail ECDQ2 SMC rail CDQ2
Housing length	19.5 mm
Switching output	PNP
Switching frequency	1,000 Hz
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67
Special features	Completely embedded mounting in the slot, providing protection

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 30 V DC
Power consumption	8 mA, without load
Voltage drop	≤ 2.5 V
Continuous current I _a	≤ 100 mA
Protection class	III
Response sensitivity, typ.	1.7 mT
Overrun distance, typ.	2 mm ¹⁾
Hysteresis, typ.	≤ 0.4 mT
Reproducibility	≤ 0.1 mT ²⁾
Reverse polarity protection	Yes
Short-circuit protection	Yes

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.

Status indicator LED	Yes								
Teach-in	No								
Power-up pulse protection	Yes								
Ambient operating temperature	-25 °C ... +75 °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 and insulation removed and tin plated, drag chain use, 2 m								
Connection type Detail	<table> <tr> <td>Conductor cross section</td><td>0.09 mm²</td></tr> <tr> <td>Cable diameter</td><td>Ø 1.9 mm</td></tr> <tr> <td>Bending radius</td><td>With fixed installation = 12 x cable diameter For flexible use = 15 x cable diameter</td></tr> <tr> <td>Cable outlet</td><td>Axial</td></tr> </table>	Conductor cross section	0.09 mm ²	Cable diameter	Ø 1.9 mm	Bending radius	With fixed installation = 12 x cable diameter For flexible use = 15 x cable diameter	Cable outlet	Axial
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Material	<table> <tr> <td>Housing</td><td>Plastic</td></tr> <tr> <td>Cable</td><td>PUR</td></tr> </table>	Housing	Plastic	Cable	PUR				
Housing	Plastic								
Cable	PUR								
UL File No.	E181493								

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

²⁾ Supply voltage U_b and constant ambient temperature T_a .

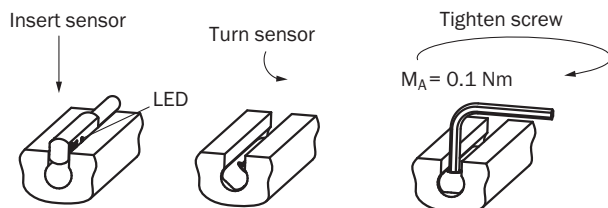
SAFETY-RELATED PARAMETERS

MTTF _D	1,469 years
DC _{avg}	0 %
T _M (mission time)	20 years

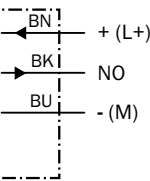
CERTIFICATES

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

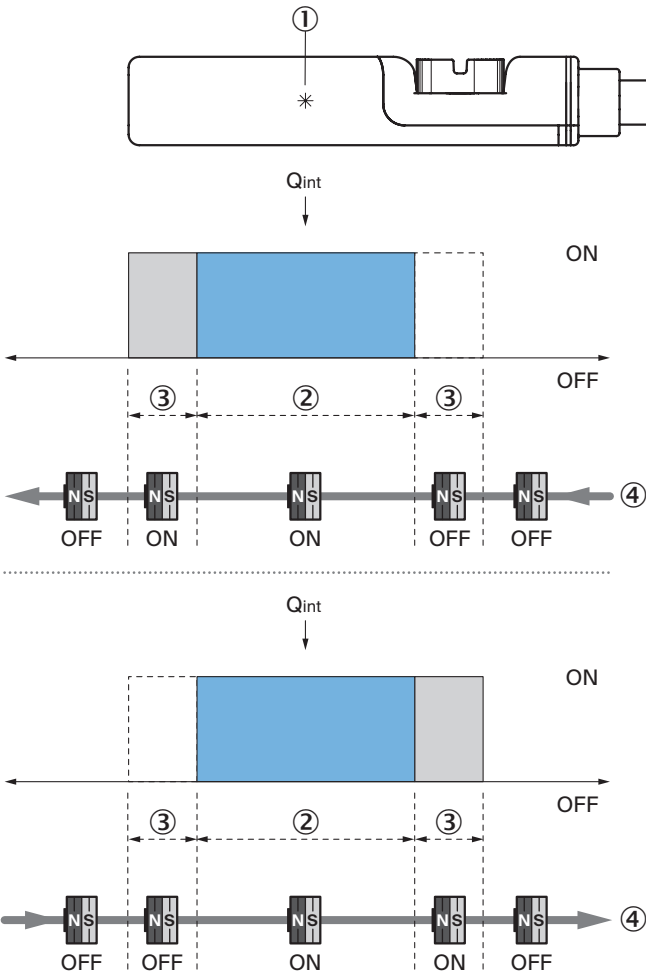
INSTALLATION NOTE



CONNECTION DIAGRAM CD-001



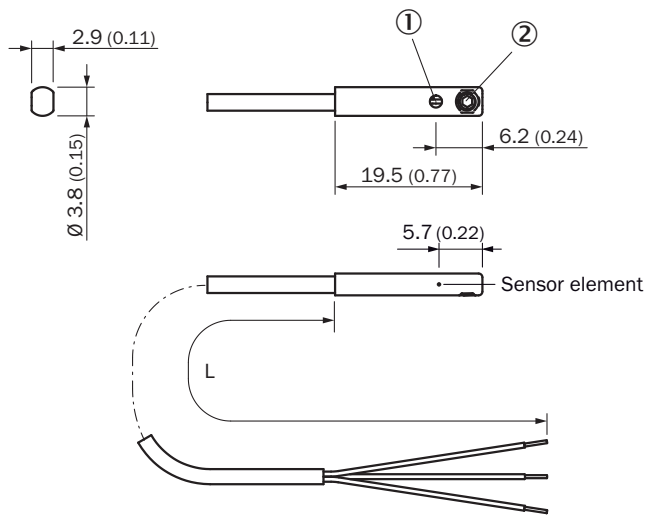
FUNCTIONAL PRINCIPLE OVERRUN DISTANCE



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 LED indicator yellow
- ② threaded pins M2,5 x 2

Part no.	Type	L	Number of cores
1099975	MZC2-1V7NS-SU0	2 m	3
1099974	MZC2-1V7PS-SU0	2 m	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/1099974



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GERMANY
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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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