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DATA SHEET

MZC1-2V2PS-KU0

MZC1
Cylinder sensors

SICK Sensor Intelligence



CYLINDER SENSORS

MZC1-2V2PS-KU0

ORDERING INFORMATION

Type	part no.
MZC1-2V2PS-KU0	1059738

Further device versions and accessories at www.sick.com/MZC1

DETAILED TECHNICAL DATA

FEATURES

Cylinder type	C-slot
Cylinder types with adapter	SMC rail CDQ2 SMC rail ECDQ2 Round body cylinder Profile cylinders and tie-rod cylinders
Housing length	23.7 mm
Switching output	PNP
Switching frequency	1,000 Hz
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 [1] IP69K

[1] According to DIN 40050 (IP 69K).

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.	2.2 mT
Overrun distance, typ.	4 mm [1]
Hysteresis, typ.	≤ 0.8 mT
Reproducibility	≤ 0.1 mT [2]

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

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

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, stripped, 2 m
Connection type Detail	
Conductor cross section	0.09 mm²
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
Material	
Housing	Plastic
Cable	PUR
UL File No.	NRKH.E181493 & NRKH7.E181493

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

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

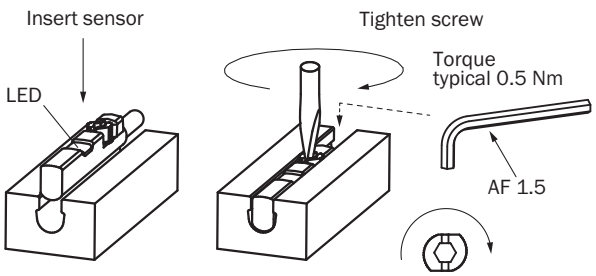
SAFETY-RELATED PARAMETERS

$MTTF_D$	2,461 years
DC_{avg}	0 %
T_M (mission time)	20 years

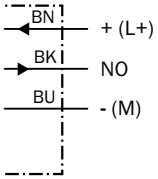
CERTIFICATES

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

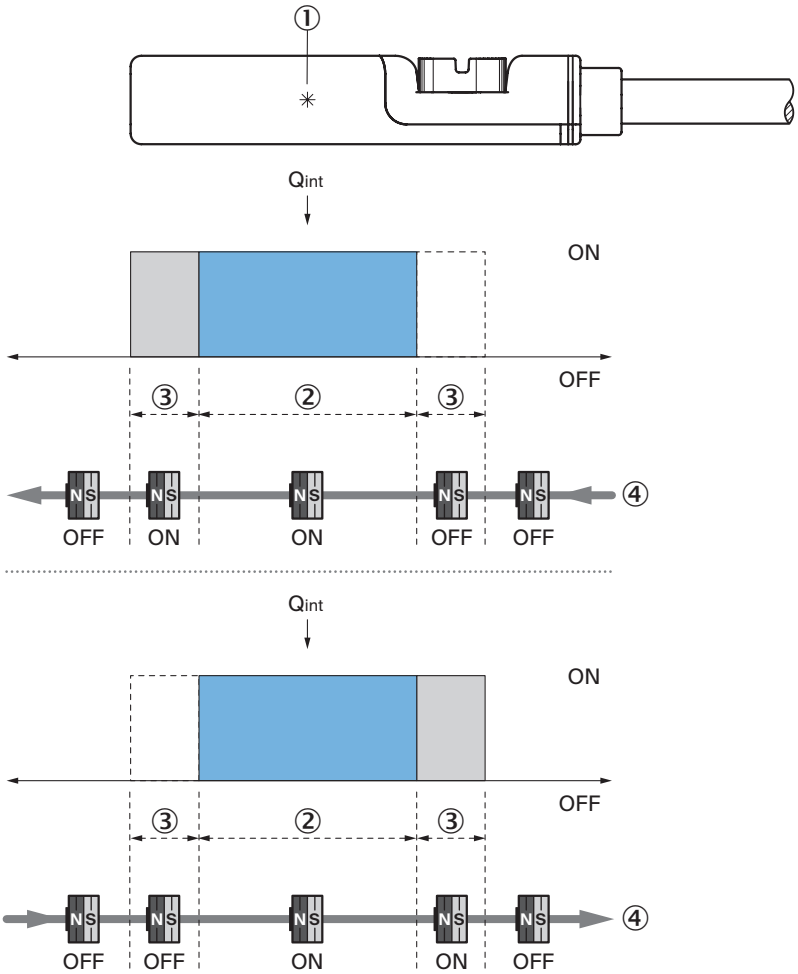
INSTALLATION NOTE



CONNECTION DIAGRAM CD-001



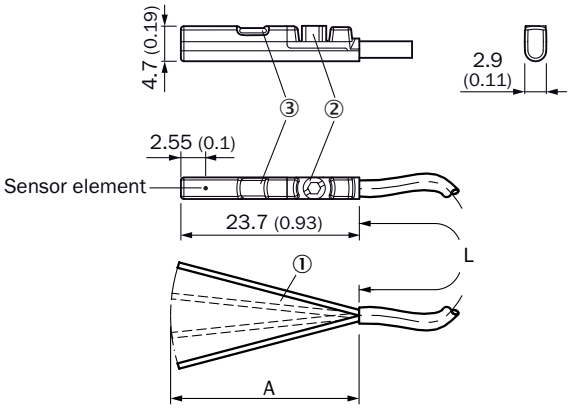
FUNCTIONAL PRINCIPLE OVERRUN DISTANCE



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 1.5
③ Display LED

Part no.	Type	L	A	Number of cores
1059738	MZC1-2V2PS-KU0	2 m	31.5 mm	3
1059740	MZC1-2V2PS-KW0	2 m	31.5 mm	3
1059743	MZC1-2V2NS-KU0	2 m	31.5 mm	3
1059755	MZC1-4V3PS-KU0	2 m	31.5 mm	3
1059756	MZC1-4V3NS-KU0	2 m	31.5 mm	3
1063549	MZC1-4V3PO-KU0	2 m	31.5 mm	3
1086137	MZC1-2V2DS-KUA	3 m	31.5 mm	2
1059739	MZC1-2V2PS-KUB	5 m	31.5 mm	3
1059741	MZC1-2V2PS-KWB	5 m	31.5 mm	3
1068831	MZC1-2Z2PS-KUB	5 m	31.5 mm	3
1087248	MZC1-2V2DS-KUB	5 m	31.5 mm	2

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/1059738

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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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