MZC2-1V7NS-FU0

MZC2

CYLINDER SENSORS

SICK
Sensor Intelligence.

MZC2-1V7NS-FU0 | MZC2
CYLINDER SENSORS

Ordering information

Type	part no.
MZC2-1V7NS-FU0	1099968

Other models and accessories ➜ www.sick.com/MZC2

Detailed technical data

Features

Cylinder type	C-slot
Preferred manufacturer slot	Festo, Zimmer, Gimatic
Housing length	19.5 mm
Switching output	NPN
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
Status indicator LED	Yes
Teach-in	No
Power-up pulse protection	Yes

[1] Distance covered by the encoder magnet while the sensor outputs a switching signal.
[2] Supply voltage U_B and constant ambient temperature Ta.

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	
Conductor cross section	0.09 mm²
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
Material	
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 Ta.

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	✓
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

Insert sensor

LED

Turn sensor

Tighten screw

$M_A = 0.1$ Nm
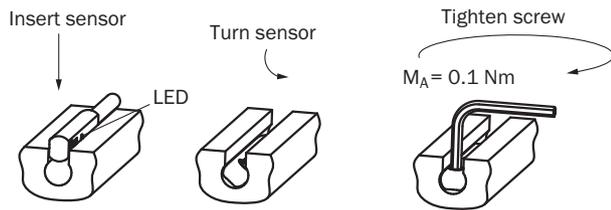
Connection diagram Cd-001

BN — + (L+)

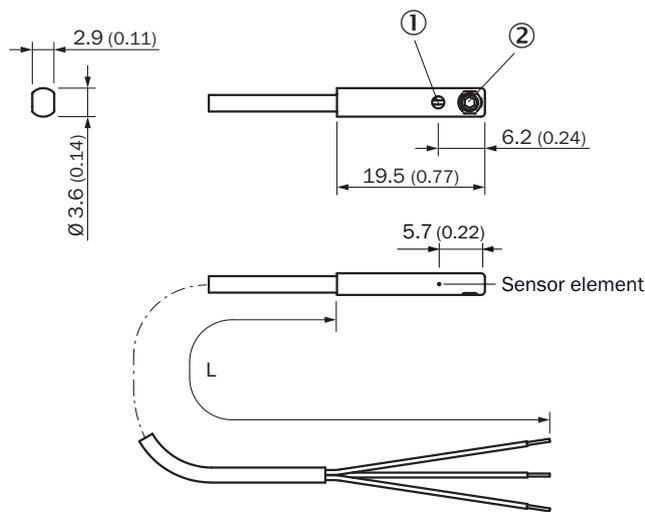BK — NO

BU — - (M)
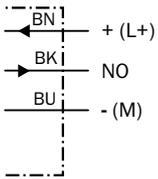
Functional principle Overrun distance
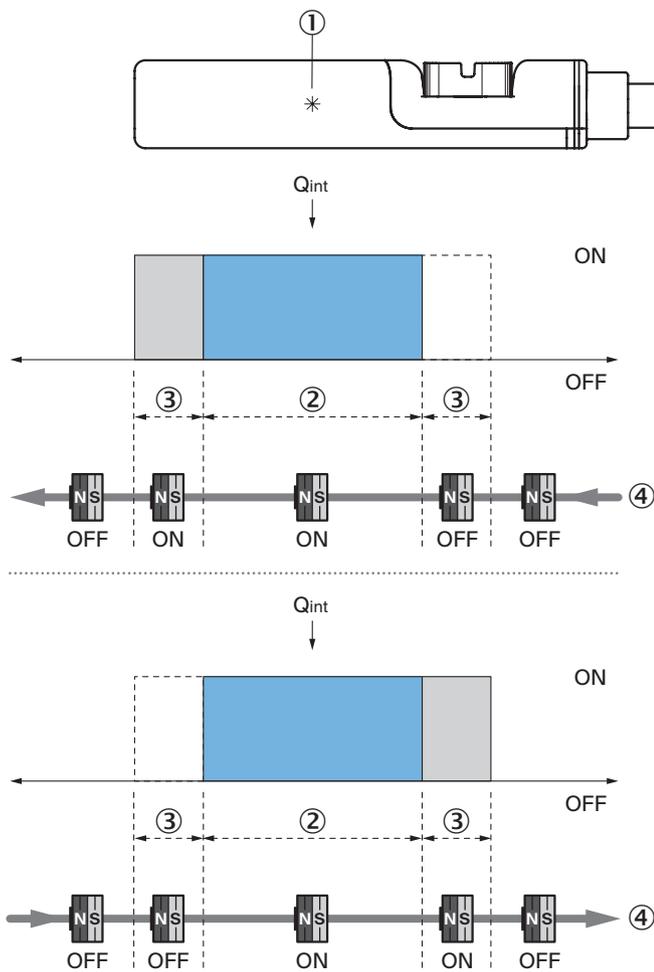
Note: Sensor housing may differ; representation corresponds to "NO contact" output function; overrun distance = switching point width + hysteresis
① Position sensor element
② Width of the switching point
③ Hysteresis
④ Direction of movement of the magnet

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
1099968	MZC2-1V7NS-FU0	2 m	3
1099967	MZC2-1V7PS-FU0	2 m	3
1117464	MZC2-1V7PS-FUB	5 m	3

Recommended accessories

Other models and accessories ➜ www.sick.com/MZC2

Brief description		Type	part no.
connectors and cables			
	• **Connection type head A:** Male connector, M8, 3-pin, straight, A-coded • **Signal type:** Sensor/actuator cable • **Description:** Sensor/actuator cable • **Connection systems:** IDC quick connection • **Permitted cross-section:** 0.08 mm² ... 0.25 mm²	YM08U13-0002K1823A	2122277

Brief description		Type	part no.
Mounting systems			
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 25 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-25	2077685
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 1 mm ... 130 mm, ambient temperature min –30 °C max 80 °C • **Material:** Stainless steel, Aluminum • **Details:** Stainless steel, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC1-130	2077686
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 63 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-63	2077666
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 50 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-50	2077667
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 40 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-40	2077668
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 32 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-32	2077669
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 25 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-25	2077670
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 20 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-20	2077671
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 16 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-16	2077672
	• **Description:** Mounting bracket on round body cylinder with piston diameter of 12 mm, ambient temperature min 0 °C max 50 °C • **Material:** Plastic, Aluminum • **Details:** Plastic, Aluminum • **Packing unit:** 1 piece • **Suitable for:** C-slot	BEF-KHZ-RC-12	2077673

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

WORLDWIDE PRESENCE:

Contacts and other locations –**www.sick.com**

SICK AG | Waldkirch | Germany | www.sick.com

SICK
Sensor Intelligence.