



MZN-03VPS-KQ0

MZN

CYLINDER SENSORS

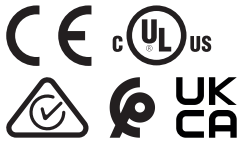
SICK
Sensor Intelligence.



Ordering information

Type	part no.
MZN-03VPS-KQ0	1117581

Other models and accessories → www.sick.com/MZN



Detailed technical data

Features

Cylinder type	IMI Norgren slot
Cylinder types with adapter	Round body cylinder
Housing length	29.5 mm
Switching output	PNP
Switching frequency	1,000 Hz
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Power consumption	10 mA, without load
Voltage drop	≤ 2 V
Continuous current I_a	≤ 100 mA
Protection class	III
Response sensitivity, typ.	2.8 mT
Overrun distance, typ.	9 mm
Hysteresis, typ.	0.8 mT
Reproducibility	≤ 0.1 mT ¹⁾
Reverse polarity protection	Yes
Short-circuit protection	Yes
Status indicator LED	Yes
Teach-in	No
Ambient operating temperature	-40 °C ... +80 °C
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
EMC	According to EN 60947-5-2

¹⁾ Supply voltage U_B and constant ambient temperature T_a.

Connection type		Cable with connector M12, 3-pin, with knurled nut, drag chain use, 0.22 m
Connection type Detail		
	Cable diameter	Ø 2.9 mm
	Bending radius	With fixed installation > 3 x cable diameter For flexible use > 10 x cable diameter
	Torsion force	± 270° / 10 cm
	Torsion cycles	> 2,000,000
	Cable outlet	Axial
Material		
	Housing	Plastic
	Cable	PUR
Items supplied		1 x mounting clip plugged in
UL File No.		NRKH.E181493 & NRKH7.E181493

¹⁾ Supply voltage U_B and constant ambient temperature T_a .

Safety-related parameters

MTTF_D	4,675 years
DC_{avg}	0 %
T_M (mission time)	20 years

Certificates

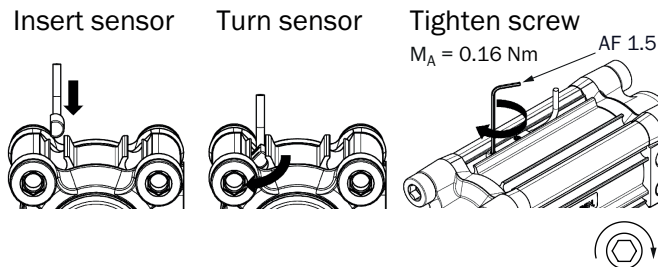
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

Classifications

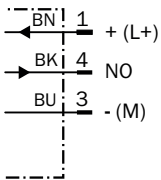
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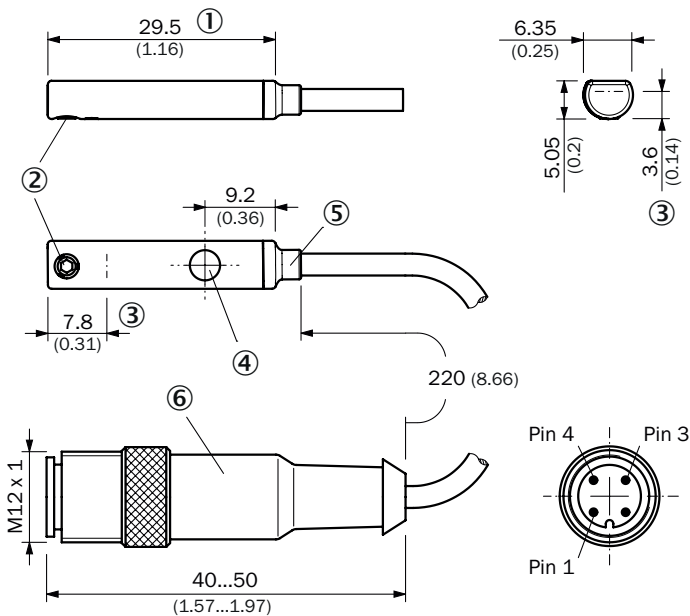
Installation note



Connection diagram Cd-002



Dimensional drawing Cable with connector M12, with knurled nut



Dimensions in mm (inch)

- ① housing
- ② Fixing screw SW 1.5
- ③ Position sensor element
- ④ Display LED

- ⑤ Hotmelt sleeve
- ⑥ Connection

Recommended accessories

Other models and accessories → www.sick.com/MZN

	Brief description	Type	part no.
Mounting systems			
	• Description: Mounting clip for round body cylinder, clamping range 9.2 mm to 10 mm, for piston rod diameter of 8 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-08	7902337
	• Description: Mounting clip for round body cylinder, clamping range 10.9 mm to 12 mm, for piston rod diameter of 10 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-10	7901753
	• Description: Mounting clip for round body cylinder, clamping range 12.9 mm to 41 mm, for piston rod diameter of 12 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-12	7901754
	• Description: Mounting clip for round body cylinder, clamping range 16.9 mm to 18 mm, for piston rod diameter of 16 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-16	7901755
	• Description: Mounting clip for round body cylinder, clamping range 21 mm to 22 mm, for piston rod diameter of 20 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-20	7901756
	• Description: Mounting clip for round body cylinder, clamping range 26.1 mm to 27.2 mm, for piston rod diameter of 25 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-25	7901757
	• Description: Mounting clip for round body cylinder, clamping range 33 mm to 35 mm, for piston rod diameter of 32 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-32	7901758
	• Description: Mounting clip for round body cylinder, clamping range 41.4 mm to 42.5 mm, for piston rod diameter of 40 mm • Material: Plastic • Details: Plastic • Items supplied: Mounting hardware included	BEF-S-R1-40	7901759

	Brief description	Type	part no.
connectors and cables			
	• Connection type head A: Female connector, M12, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A13-050UB1XLEAX	2095605
	• Connection type head A: Female connector, M12, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 3-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A13-100UB1XLEAX	2095606
	• Connection type head A: Female connector, M12, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YG2A13-050UB1XLEAX	2095753
	• Connection type head A: Female connector, M12, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 3-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YG2A13-100UB1XLEAX	2095754

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:

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