MZN-03VPS-KQ0

MZN

SENSORS FOR IMI NORGREN SLOT

SICK
Sensor Intelligence.

MZN-03VPS-KQ0 | MZN
SENSORS FOR IMI NORGREN SLOT

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
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
Connection type	Cable with connector M12, 3-pin, with knurled nuts, drag chain use, 0.22 m

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

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 Ta.

Safety-related parameters

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

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	Turn sensor	Tighten screw

Tighten screw M_A = 0.16 Nm   AF 1.5
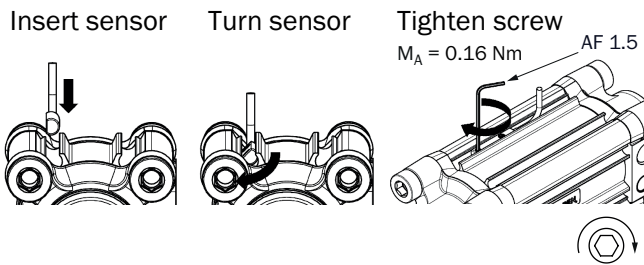
Connection diagram

Cd-002

BN	1	+ (L+)
BK	4	NO
BU	3	- (M)
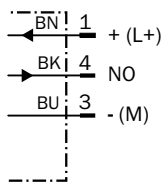
Dimensional drawing (Dimensions in mm (inch))

Cable with connector M12, with knurled nuts

29.5 (1.16) ①

6.35 (0.25)

5.05 (0.2)

3.6 (0.14) ③

②

9.2 (0.36)   ⑤

7.8 (0.31)   ③

④

220 (8.66)

⑥

M12 x 1

40...50 (1.57...1.97)

Pin 4   Pin 3

Pin 1
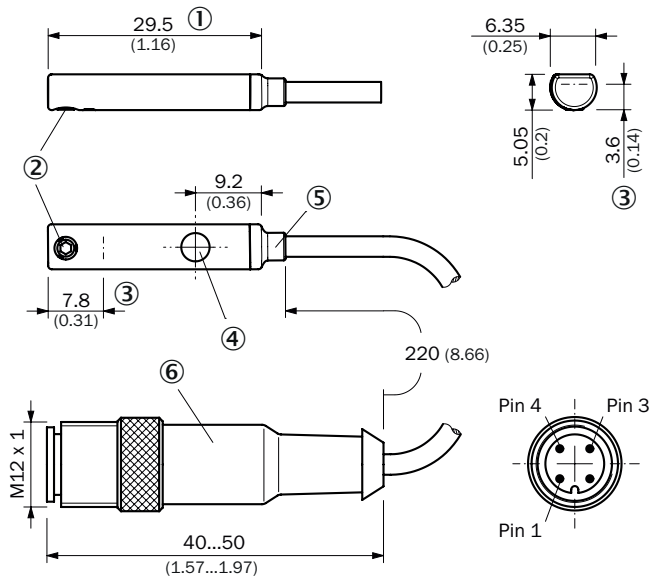
① Housing
② Fixing screw SW 1.5
③ Position sensor element
④ Display LED
⑤ Hotmelt sleeve
⑥ Connection

Recommended accessories

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

	Brief description	Type	Part no.
Brackets for cylinder sensors			
	Mounting clip for round body cylinder, clamping range 9.2 mm to 10 mm, for piston rod diameter of 8 mm, plastic, mounting hardware included	BEF-S-R1-08	7902337
	Mounting clip for round body cylinder, clamping range 10.9 mm to 12 mm, for piston rod diameter of 10 mm, plastic, mounting hardware included	BEF-S-R1-10	7901753
	Mounting clip for round body cylinder, clamping range 12.9 mm to 41 mm, for piston rod diameter of 12 mm, plastic, mounting hardware included	BEF-S-R1-12	7901754
	Mounting clip for round body cylinder, clamping range 16.9 mm to 18 mm, for piston rod diameter of 16 mm, plastic, mounting hardware included	BEF-S-R1-16	7901755
	Mounting clip for round body cylinder, clamping range 21 mm to 22 mm, for piston rod diameter of 20 mm, plastic, mounting hardware included	BEF-S-R1-20	7901756
	Mounting clip for round body cylinder, clamping range 26.1 mm to 27.2 mm, for piston rod diameter of 25 mm, plastic, mounting hardware included	BEF-S-R1-25	7901757
	Mounting clip for round body cylinder, clamping range 33 mm to 35 mm, for piston rod diameter of 32 mm, plastic, mounting hardware included	BEF-S-R1-32	7901758
	Mounting clip for round body cylinder, clamping range 41.4 mm to 42.5 mm, for piston rod diameter of 40 mm, plastic, mounting hardware included	BEF-S-R1-40	7901759
	Mounting clip for round body cylinder, clamping range 52.5 mm to 54 mm, for piston rod diameter of 50 mm, plastic, mounting hardware included	BEF-S-R1-50	7901760
	Mounting clip for round body cylinder, clamping range 66 mm to 67 mm, for piston rod diameter of 63 mm, plastic, mounting hardware included	BEF-S-R1-63	7901761
Plug 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:** Zones with oils and lubricants, Drag chain operation, Robot	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:** Zones with oils and lubricants, Drag chain operation, Robot	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:** Zones with oils and lubricants, Drag chain operation, Robot	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:** Zones with oils and lubricants, Drag chain operation, Robot	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."

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