



# MZN-03VPS-KQ0

MZN

SENSORS FOR IMI NORGREN SLOT

**SICK**  
Sensor Intelligence.



## Ordering information

Type	Part no.
MZN-03VPS-KQ0	1117581

Other models and accessories → [www.sick.com/MZN](http://www.sick.com/MZN)



## Detailed technical data

### Features

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

<sup>1)</sup> According to EN 60529.

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Power consumption</b>	10 mA, without load
<b>Voltage drop</b>	≤ 2 V
<b>Continuous current I<sub>a</sub></b>	≤ 100 mA
<b>Protection class</b>	III
<b>Response sensitivity, typ.</b>	2.8 mT
<b>Overrun distance, typ.</b>	9 mm
<b>Hysteresis, typ.</b>	0.8 mT
<b>Reproducibility</b>	≤ 0.1 mT <sup>1)</sup>
<b>Reverse polarity protection</b>	Yes
<b>Short-circuit protection</b>	Yes
<b>Status indicator LED</b>	Yes
<b>Ambient operating temperature</b>	-40 °C ... +80 °C
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>EMC</b>	According to EN 60947-5-2
<b>Connection type</b>	Cable with connector M12, 3-pin, with knurled nuts, drag chain use, 0.22 m

<sup>1)</sup> U<sub>b</sub> and T<sub>a</sub> constant.

<b>Connection type Detail</b>	
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
<b>Material</b>	
Housing	Plastic
Cable	PUR
<b>Items supplied</b>	1 x mounting clip plugged in
<b>UL File No.</b>	NRKH.E181493 & NRKH7.E181493

<sup>1)</sup> Ub and Ta constant.

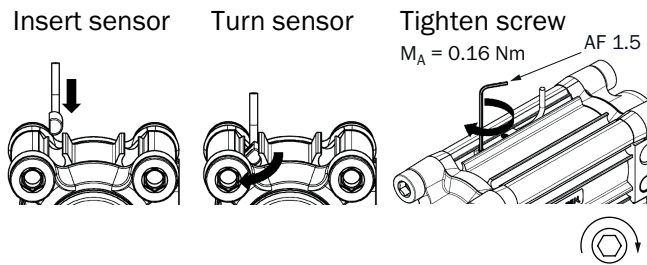
### Safety-related parameters

<b>MTTF<sub>D</sub></b>	4,675 years
<b>DC<sub>avg</sub></b>	0 %
<b>T<sub>M</sub> (mission time)</b>	20 years

### Classifications

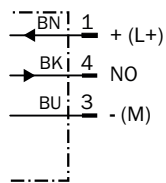
<b>eCl@ss 5.0</b>	27270104
<b>eCl@ss 5.1.4</b>	27270104
<b>eCl@ss 6.0</b>	27270104
<b>eCl@ss 6.2</b>	27270104
<b>eCl@ss 7.0</b>	27270104
<b>eCl@ss 8.0</b>	27270104
<b>eCl@ss 8.1</b>	27270104
<b>eCl@ss 9.0</b>	27270104
<b>eCl@ss 10.0</b>	27270104
<b>eCl@ss 11.0</b>	27270104
<b>eCl@ss 12.0</b>	27274301
<b>ETIM 5.0</b>	EC002544
<b>ETIM 6.0</b>	EC002544
<b>ETIM 7.0</b>	EC002544
<b>ETIM 8.0</b>	EC002544
<b>UNSPSC 16.0901</b>	39122230

### Installation note



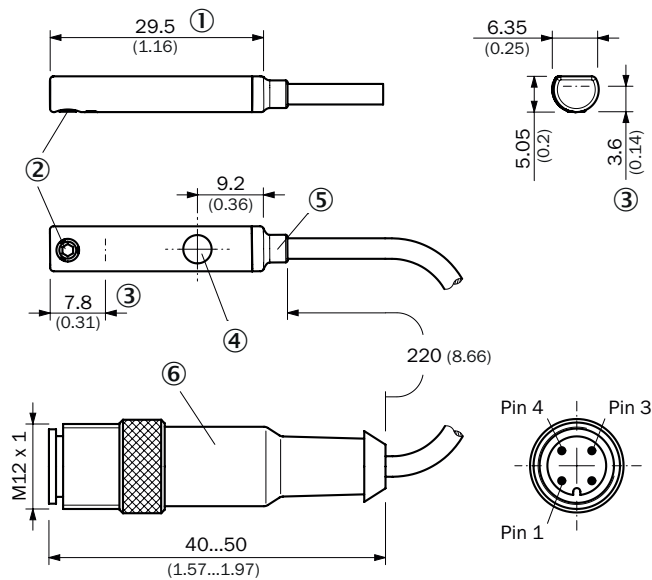
### Connection diagram

Cd-002



### Dimensional drawing (Dimensions in mm (inch))


Cable with connector M12, with knurled nuts



- 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](http://www.sick.com/MZN)

	Brief description	Type	Part no.
<b>Brackets for cylinder sensors</b>			
	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
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A13-050UB1XLEAX	2095605
	Head A: female connector, M12, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A13-100UB1XLEAX	2095606
	Head A: female connector, M12, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A13-050UB1XLEAX	2095753
	Head A: female connector, M12, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	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:

Contacts and other locations –[www.sick.com](http://www.sick.com)