



## Inductive proximity sensors Cylindrical threaded housing, IM12

IM12-02BNS-ZC1



**Model Name** > [IM12-02BNS-ZC1](#)  
**Part No.** > [6011972](#)



**At a glance**

- Size M12
- IP 67 enclosure rating
- Operating temperature from -25° C to +75° C

**Your benefits**

- Reduced machine downtime
- Reduced mechanical damage
- Fewer maintenance costs due to longer service life
- High resistance to shock and vibrations



**Features**

Design:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	2 mm
Installation type:	Flush
Switching frequency:	2,000 Hz
Output type:	NPN
Output function:	NO
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 67 <sup>1)</sup>
Electrical connection:	Connector M12, 4-pin
Housing:	Standard

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

**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC
Residual ripple:	≤ 10 % <sup>1)</sup>
Voltage drop:	≤ 1.2 V <sup>2)</sup>
Power consumption:	≤ 20 mA <sup>3)</sup>
Time delay before availability:	≤ 100 ms
Hysteresis:	2 % ... 10 %
Repeatability:	≤ 2 % <sup>4) 5)</sup>
Temperature drift (of Sr):	± 10 %
EMC:	According to EN 60947-5-2
Output current I <sub>a</sub> :	≤ 200 mA

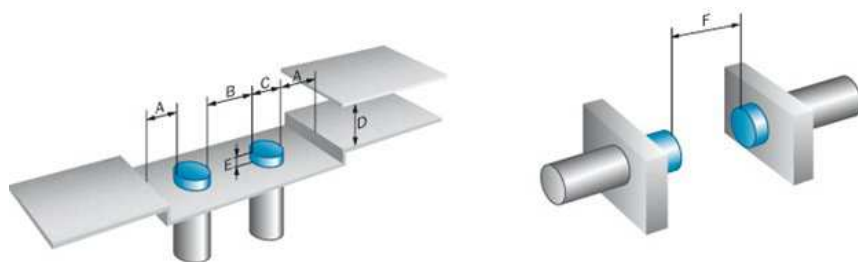
Wire-break protection:	0
Short-circuit protection:	✓
Reverse polarity protection:	✓
Power-up pulse protection:	✓
Shock and vibration resistance:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient temperature operation:	-25 °C ... 70 °C
Housing material:	Metal, Nickel-plated brass
Housing cap material:	Plastic
Housing length:	65 mm
Thread length:	43 mm
Tightening torque, max.:	10 Nm

1) Of  $V_S$  2) At  $I_a$  max 3) Without load 4)  $U_b$  and  $T_a$  constant 5) Of  $S_r$

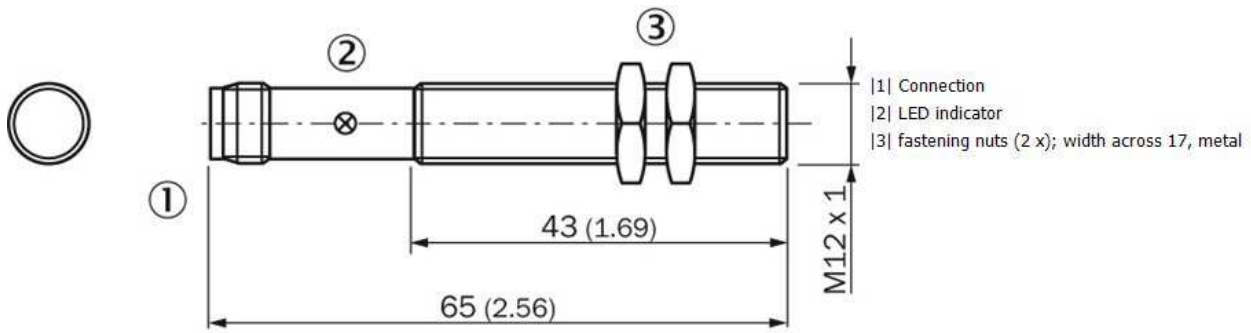
### Installation note

A:	6 mm
B:	12 mm
C:	12 mm
D:	6 mm
E:	0 mm
F:	16 mm
Remark:	Associated graphic see "Installation"

### Installation note

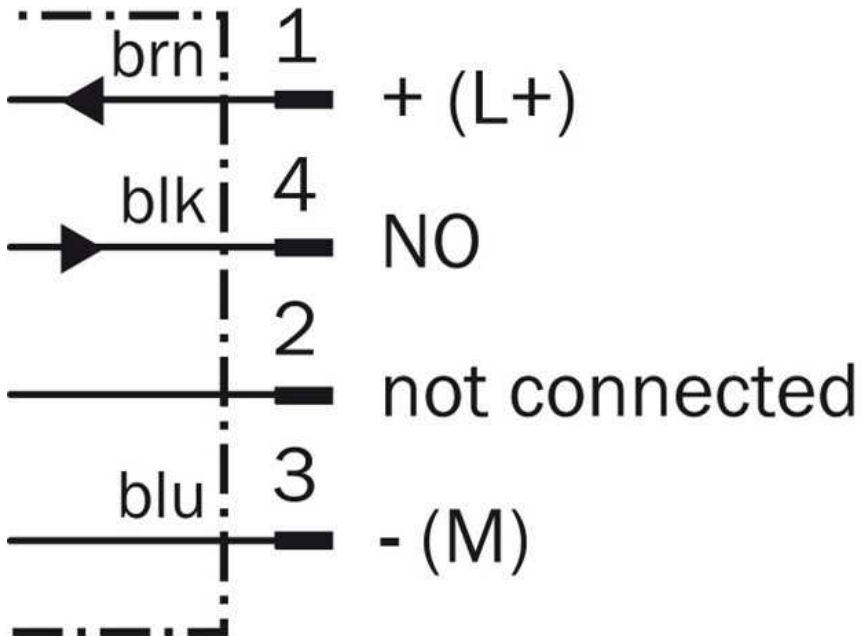


## Dimensional drawing



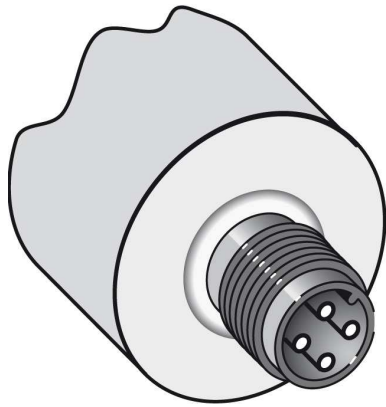
All dimensions in mm (inch)

## Connection diagram



Connection type

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