



Inductive proximity sensors  
Cylindrical threaded housing, IM12

IM12-04NPO-ZW1



**Model Name** > [IM12-04NPO-ZW1](#)  
**Part No.** > [6011977](#)



**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**

Housing:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	4 mm
Installation type:	Non-flush
Switching frequency:	2,000 Hz
Output type:	PNP
Output function:	NC
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 67 <sup>1)</sup>
Connection type:	Cable, 3-wire, 2 m
Housing:	Standard

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

**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC
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

Cable material:	PVC
Conductor cross-section:	0.22 mm <sup>2</sup>
Wire-break protection:	0
Short-circuit protection:	✓
Reverse polarity protection:	✓
Power-up pulse protection:	✓
Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient operating temperature:	-25 °C ... 70 °C
Housing material:	Metal, Nickel-plated brass
Housing cap material:	Plastic
Housing length:	50 mm
Thread length:	35 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  $S_r$

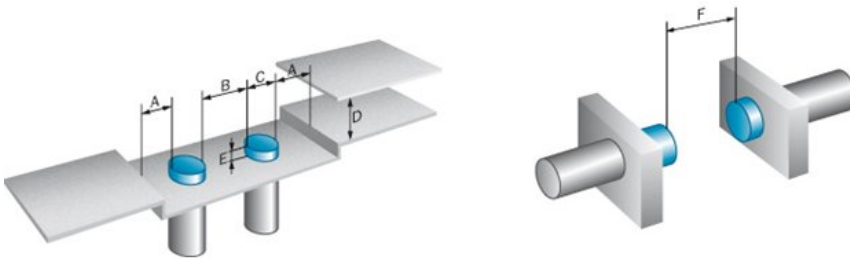
### Installation note

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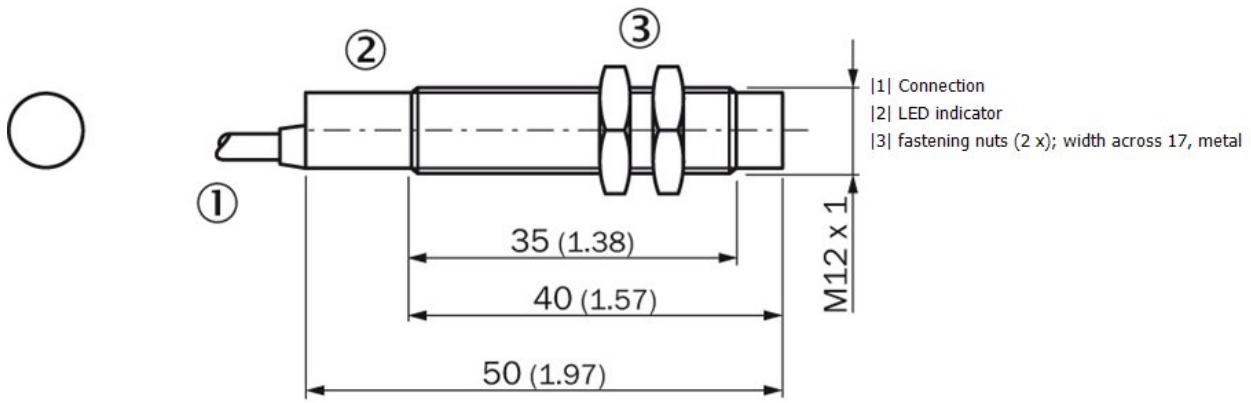
A:	12 mm
B:	24 mm
C:	12 mm
D:	12 mm
E:	8 mm
F:	32 mm
Remark:	Associated graphic see "Installation"

### Installation note

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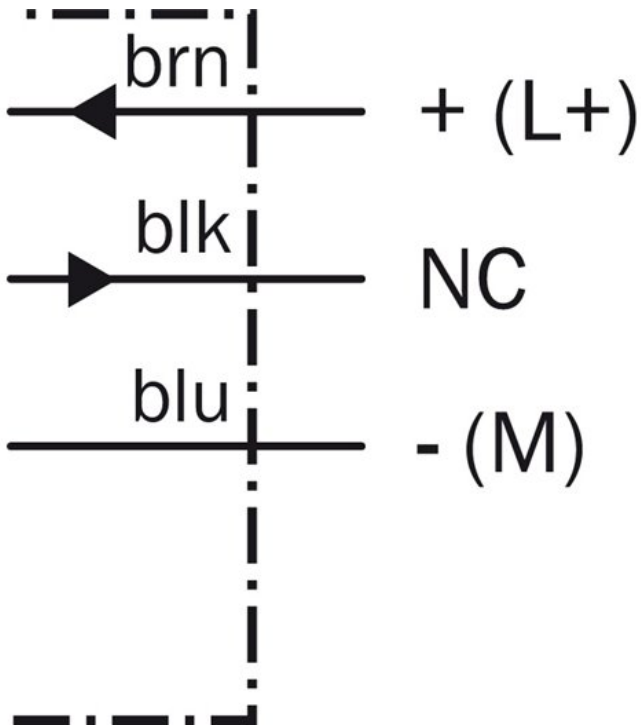


Dimensional drawing



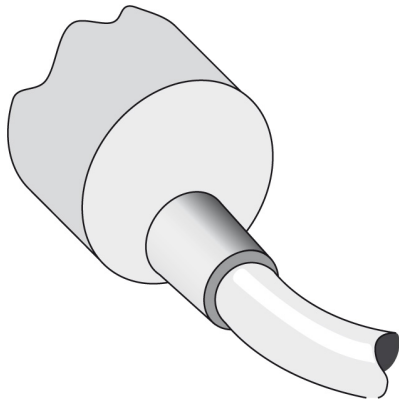
All dimensions in mm (inch)

Connection diagram



**Connection type**

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