



Inductive proximity sensors  
Cylindrical threaded housing, IM12

IM12-04NNS-ZWB



**Model Name** > **IM12-04NNS-ZWB**  
**Part No.** > **6026527**



**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:      | 4 mm                |
| Installation type:     | Non-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: | Cable, 3-wire, 5 m  |
| 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                  |

|                                 |                                |
|---------------------------------|--------------------------------|
| 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 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:                 | 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  $S_r$

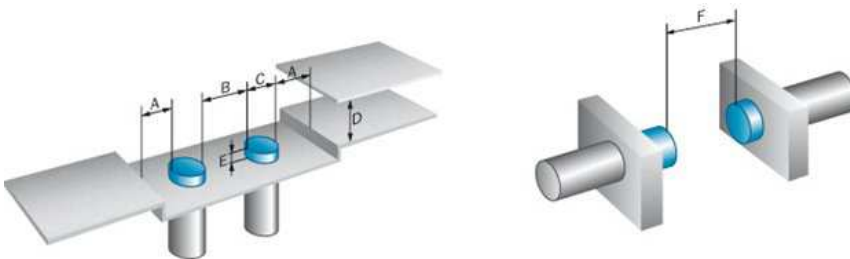
### Installation note

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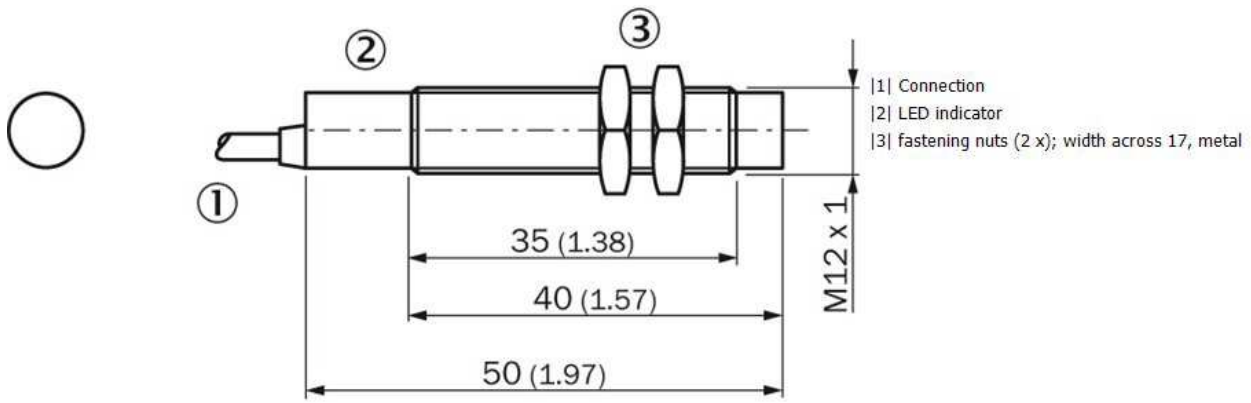
|         |                                       |
|---------|---------------------------------------|
| A:      | 12 mm                                 |
| B:      | 24 mm                                 |
| C:      | 12 mm                                 |
| D:      | 12 mm                       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

### Installation note

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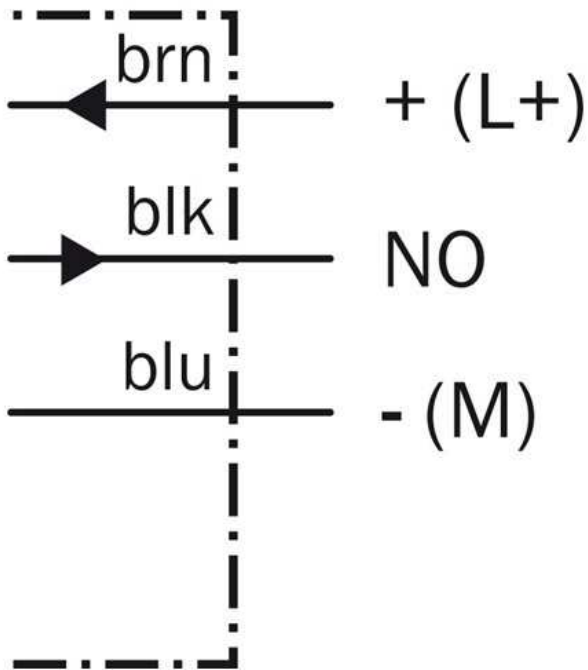


Dimensional drawing



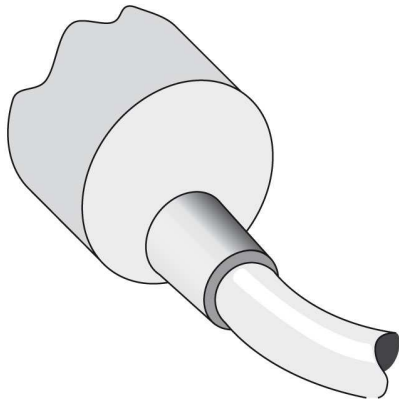
All dimensions in mm (inch)

Connection diagram



**Connection type**

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