



Inductive proximity sensors  
Cylindrical threaded housing, IM30

IM30-15NDS-ZC1



**Model Name** > [IM30-15NDS-ZC1](#)  
**Part No.** > [6020332](#)



**At a glance**

- Size M30
- IP 67 enclosure rating
- Operating temperature from -25° C to +70° 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:              | M30 x 1.5            |
| Sensing range Sn:         | 15 mm                |
| Assured sensing range Sa: | 12.15 mm             |
| Installation type:        | Non-flush            |
| Switching frequency:      | 150 Hz               |
| Output function:          | NO                   |
| Electrical wiring:        | DC 2-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 %                    |
| Voltage drop:                   | ≤ 2.8 V <sup>1)</sup>     |
| Time delay before availability: | ≤ 50 ms                   |
| Hysteresis:                     | 2 % ... 10 %              |
| Repeatability:                  | ≤ 2 % <sup>2) 3)</sup>    |
| Temperature drift (of Sr):      | ± 10 %                    |
| EMC:                            | According to EN 60947-5-2 |
| Output current I <sub>a</sub> : | ≤ 100 mA                  |
| Off-state current:              | ≤ 0.8 mA                  |

|                                 |                                |
|---------------------------------|--------------------------------|
| Load resistance, min.:          | ≥ 3 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:                 | 76 mm                          |
| Thread length:                  | 38 mm                          |
| Tightening torque, max.:        | 60 Nm                          |

1) At I<sub>a</sub> max 2) Ub and Ta constant 3) Of Sr

### Reduction factors

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|                             |  |
|-----------------------------|--|
| Note:                       | The values are reference values which may vary |
| Stainless steel (V2A, 304): | Ca. 0.8  |
| Copper (Cu):                | Ca. 0.45                                       |
| Aluminum (Al):              | Ca. 0.5  |
| Brass (Br):                 | Ca. 0.55                                       |

### Installation note

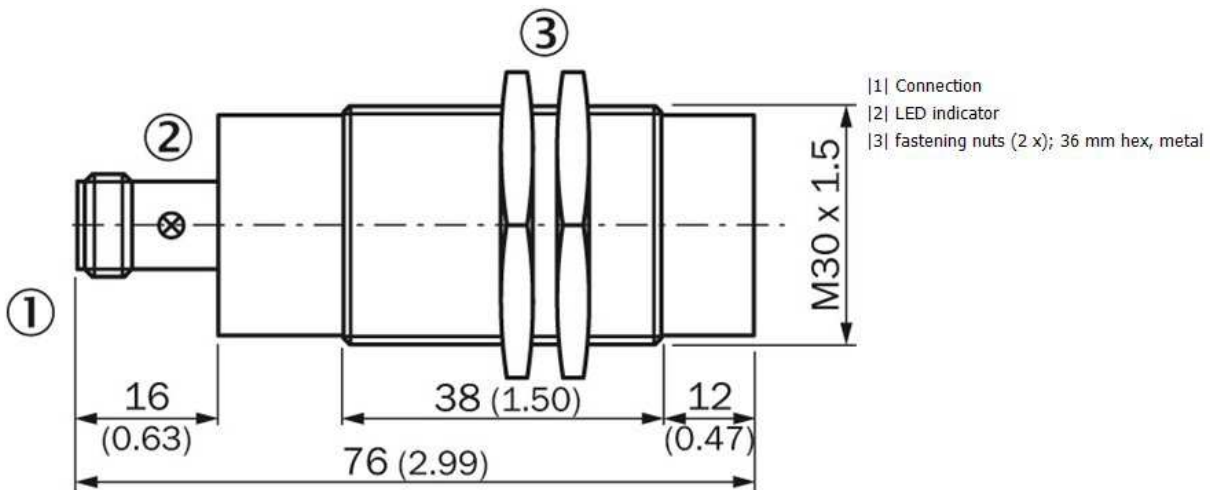
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|         |                                       |
|---------|---------------------------------------|
| A:      | 15 mm                                 |
| B:      | 45 mm                                 |
| C:      | 30 mm                                 |
| D:      | 45 mm                                 |
| E:      | 18 mm                                 |
| F:      | 120 mm                                |
| Remark: | Associated graphic see "Installation" |

## Installation note

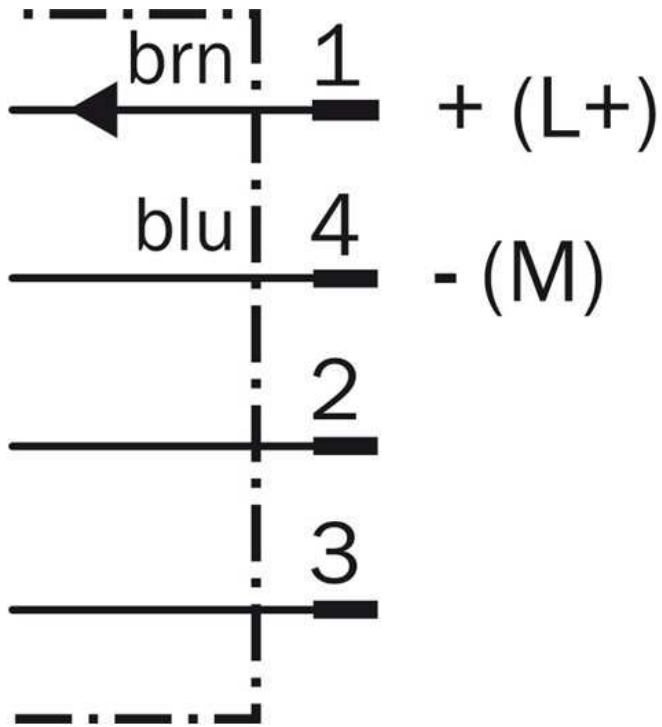


## Dimensional drawing

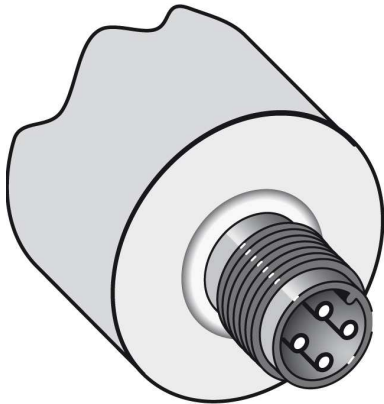


All dimensions in mm (inch)

Connection diagram



Connection type



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