



## Inductive proximity sensors Cylindrical threaded housing, IM30

IM30-20NPO-ZC1



**Model Name** > [IM30-20NPO-ZC1](#)  
**Part No.** > [7900159](#)



#### 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

|                      |                      |
|----------------------|----------------------|
| Housing:             | Cylindrical          |
| Thread size:         | M30 x 1.5            |
| Sensing range Sn:    | 20 mm                |
| Installation type:   | Non-flush            |
| Switching frequency: | 150 Hz               |
| Output type:         | PNP                  |
| Output function:     | NC                   |
| Electrical wiring:   | DC 3-wire            |
| Enclosure rating:    | IP 67 <sup>1)</sup>  |
| Connection type:     | Connector M12, 4-pin |
| 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 V <sup>2)</sup>               |
| Power consumption:              | ≤ 10 mA <sup>3)</sup>             |
| Time delay before availability: | ≤ 100 ms                          |
| Hysteresis:                     | 2 % ... 15 %                      |
| Repeatability:                  | ≤ 5 % <sup>4)</sup> <sup>5)</sup> |
| Temperature drift (% of Sr):    | ± 10 %                            |
| EMC:                            | According to EN 60947-5-2         |
| Output current Ia:              | ≤ 400 mA                          |

|                                |                                |
|--------------------------------|--------------------------------|
| 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:                | 76 mm                          |
| Thread length:                 | 38 mm                          |
| Tightening torque, max.:       | 60 Nm                          |

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

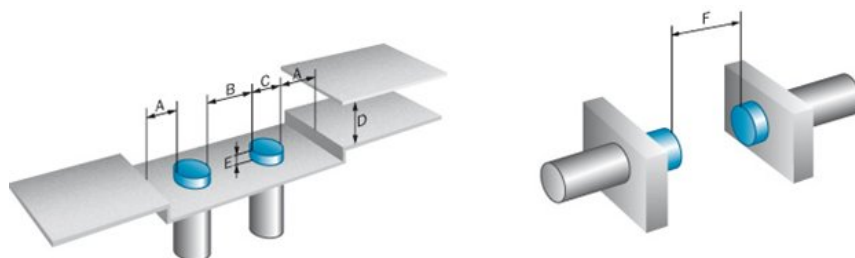
#### Installation note

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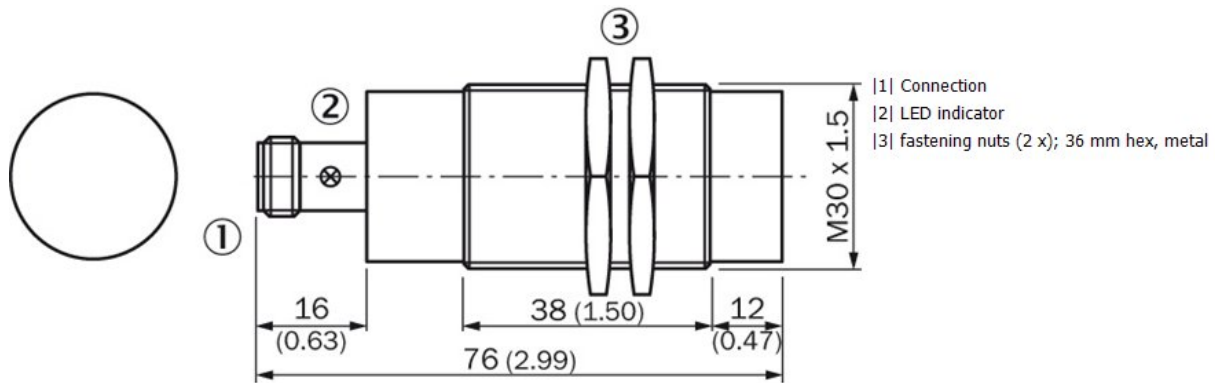
|         |                                       |
|---------|---------------------------------------|
| A:      | 20 mm                                 |
| B:      | 60 mm                                 |
| C:      | 30 mm                                 |
| D:      | 60 mm                                 |
| E:      | 20 mm                                 |
| F:      | 160 mm                                |
| Remark: | Associated graphic see "Installation" |

#### Installation note

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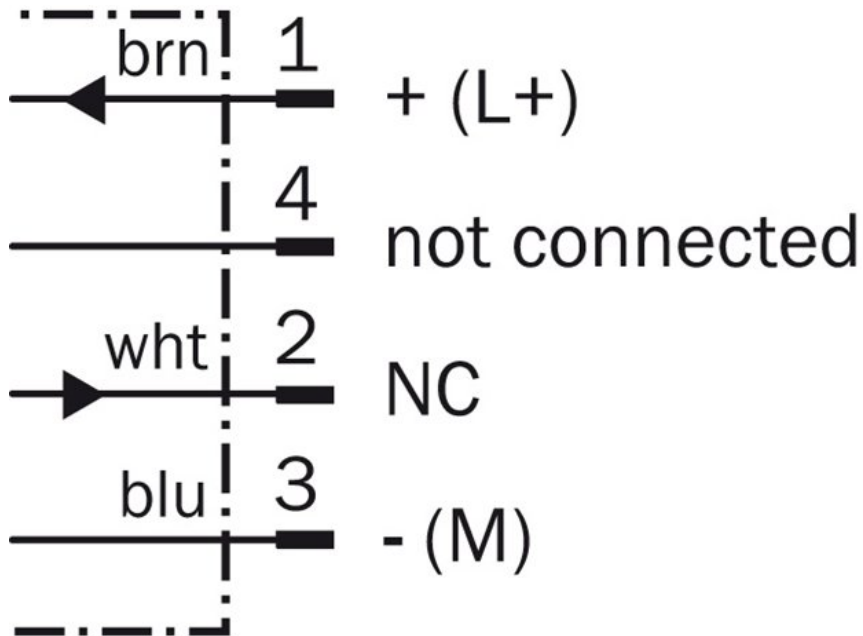


Dimensional drawing



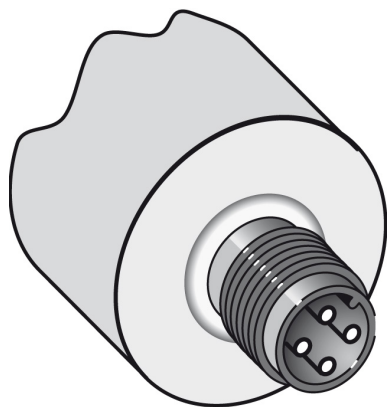
All dimensions in mm (inch)

Connection diagram



## Connection type

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