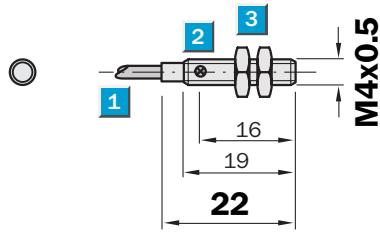
 **Sensing range**  
**0.6 mm**

Inductive sensor

- Can be installed flush
- High switching frequency
- Short-circuit protection (pulsed)
- Robust stainless steel housing with fine thread M4 x 0.5 mm
- Enclosure rating IP 67

Dimensional drawing

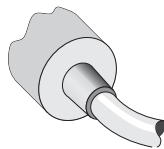


- 1 Connection
- 2 Display LED
- 3 Fastening nuts (2 x); width across 6, stainless steel

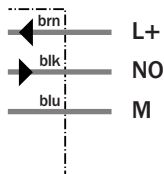


Connection type

- IM04-0B6NS-ZU1
- IM04-0B6PS-ZU1



3 x 0.06 mm<sup>2</sup>



| Technical specifications                      |                                                    | IM04- | OB6NS-ZU1 | OB6PS-ZU1 |  |  |  |  |  |  |  |  |
|-----------------------------------------------|----------------------------------------------------|-------|-----------|-----------|--|--|--|--|--|--|--|--|
| <b>Sensing range S<sub>n</sub></b>            | 0.6 mm                                             |       |           |           |  |  |  |  |  |  |  |  |
| <b>Electrical configuration</b>               | DC 3-wire                                          |       |           |           |  |  |  |  |  |  |  |  |
| <b>Supply voltage V<sub>s</sub></b>           | DC 10 ... 30 V                                     |       |           |           |  |  |  |  |  |  |  |  |
| Ripple U <sub>pp</sub>                        | ≤ 20 % <sup>1)</sup>                               |       |           |           |  |  |  |  |  |  |  |  |
| Voltage drop U <sub>d</sub>                   | ≤ 0.6 V <sup>2)</sup>                              |       |           |           |  |  |  |  |  |  |  |  |
| Power consumption                             | ≤ 10 mA <sup>3)</sup>                              |       |           |           |  |  |  |  |  |  |  |  |
| <b>Continuous current I<sub>a</sub></b>       | ≤ 100 mA                                           |       |           |           |  |  |  |  |  |  |  |  |
| Time delay before availability t <sub>v</sub> | ≤ 10 ms                                            |       |           |           |  |  |  |  |  |  |  |  |
| Hysteresis H, of s <sub>r</sub>               | 10 %                                               |       |           |           |  |  |  |  |  |  |  |  |
| Repeatability R                               | ≤ 2 % (U <sub>b</sub> and T <sub>a</sub> constant) |       |           |           |  |  |  |  |  |  |  |  |
| Temperature drift, of s <sub>r</sub>          | ± 10 %                                             |       |           |           |  |  |  |  |  |  |  |  |
| EMC                                           | According to EN 60947-5-2                          |       |           |           |  |  |  |  |  |  |  |  |
| <b>Switching output</b>                       | NPN                                                |       |           |           |  |  |  |  |  |  |  |  |
|                                               | PNP                                                |       |           |           |  |  |  |  |  |  |  |  |
| <b>Output function</b>                        | Normally open <sup>4)</sup>                        |       |           |           |  |  |  |  |  |  |  |  |
| <b>Installation</b>                           | Flush                                              |       |           |           |  |  |  |  |  |  |  |  |
| <b>Connection type</b>                        | Cable, PUR, 2 m                                    |       |           |           |  |  |  |  |  |  |  |  |
| <b>Enclosure rating</b>                       | IP 67 <sup>5)</sup>                                |       |           |           |  |  |  |  |  |  |  |  |
| Max. switching frequency                      | 5,000 Hz                                           |       |           |           |  |  |  |  |  |  |  |  |
| Dimensions                                    | M4 x 0.5 <sup>6)</sup>                             |       |           |           |  |  |  |  |  |  |  |  |
| <b>Short-circuit protection</b>               | ✓ <sup>7)</sup>                                    |       |           |           |  |  |  |  |  |  |  |  |
| <b>Reverse polarity protection</b>            | ✓                                                  |       |           |           |  |  |  |  |  |  |  |  |
| <b>Power-up pulse suppression</b>             | ✓                                                  |       |           |           |  |  |  |  |  |  |  |  |
| Shock/vibration stress                        | 30 g, 11 ms/10 ... 55 Hz, 1 mm                     |       |           |           |  |  |  |  |  |  |  |  |
| Ambient temperature T <sub>a</sub>            | -25 °C ... +70 °C                                  |       |           |           |  |  |  |  |  |  |  |  |
| <b>Housing material</b>                       | Stainless steel, plastic                           |       |           |           |  |  |  |  |  |  |  |  |
| Tightening torque                             | 0.8 Nm                                             |       |           |           |  |  |  |  |  |  |  |  |

<sup>1)</sup> of U<sub>b</sub>  
<sup>2)</sup> at I<sub>a</sub> = 50 mA

<sup>3)</sup> without load  
<sup>4)</sup> normally closed function available on

request  
<sup>5)</sup> according to EN 60529

<sup>6)</sup> Thread diameter x pitch (mm)  
<sup>7)</sup> (pulsed)

| Order information |           |
|-------------------|-----------|
| Type              | Order no. |
| IM04-OB6NS-ZU1    | 6 020 146 |
| IM04-OB6PS-ZU1    | 6 020 145 |