



## Inductive proximity sensors Cylindrical threaded housing, IMF18

IMF18-08BNOVCOS



**Model Name** > IMF18-08BNOVC0S  
**Part No.** > 6035479



#### At a glance

- Size M18
- Extremely watertight (IP 68/IP 69K)
- Extended temperature range (-40 to +80 °C). Tolerates short-term temperature increases up to 100 °C
- Stainless steel housing (316L/1.4404)
- Front cap made of PPS (FDA-certified material)
- Resistant to industrial cleaning agents, ECOLAB and JohnsonDiversey certified

#### Your benefits

- Reduced machine downtime
- Hygienic process due to FDA approved material and hygienic design
- Reduced maintenance costs due to sensor's resistance to aggressive cleaning cycles
- No restrictions on cleaning agents or processes, ensuring reliable operation



#### Features

|                           |                                    |
|---------------------------|------------------------------------|
| Housing:                  | Cylindrical                        |
| Thread size:              | M18 x 1                            |
| Sensing range Sn:         | 8 mm                               |
| Assured sensing range Sa: | 6.48 mm                            |
| Installation type:        | Flush                              |
| Switching frequency:      | 1,500 Hz                           |
| Output type:              | NPN                                |
| Output function:          | NC                                 |
| Electrical wiring:        | DC 3-wire                          |
| Enclosure rating::        | IP 68, IP 69K <sup>1) 2)</sup>     |
| Connection type:          | Connector M12, 4-pin <sup>3)</sup> |

<sup>1)</sup> According to EN 60529 <sup>2)</sup> According to EN40050 <sup>3)</sup> With gold plated contact pins

#### Mechanics/electronics

|                                 |                       |
|---------------------------------|-----------------------|
| Supply voltage:                 | 10 V ... 30 V         |
| Ripple:                         | ≤ 10 %                |
| Voltage drop:                   | ≤ 2 V                 |
| Power consumption:              | ≤ 15 mA <sup>1)</sup> |
| Time delay before availability: | Ca. 50 ms             |

|                                 |                                                     |
|---------------------------------|-----------------------------------------------------|
| Hysteresis:                     | 1 % ... 20 %                                        |
| Repeatability:                  | 5 % <sup>2)</sup> <sup>3)</sup>                     |
| Temperature drift (% of Sr):    | ± 10 %                                              |
| EMC:                            | According to EN 60947-5-2                           |
| Output current I <sub>a</sub> : | ≤ 200 mA                                            |
| Short-circuit protection:       | ✓                                                   |
| Reverse polarity protection:    | ✓                                                   |
| Power-up pulse protection:      | ✓                                                   |
| Shock/vibration:                | 30 g, 11 ms/10 Hz ... 55 Hz, 1 mm                   |
| Ambient operating temperature:  | -40 °C ... 80 °C <sup>4)</sup>                      |
| Housing material:               | Stainless steel, Stainless steel V4A (1.4404, 316L) |
| Housing cap material:           | PPS                                                 |
| Housing length:                 | 63 mm                                               |
| Thread length:                  | 35 mm                                               |
| Tightening torque, max.:        | 50 Nm                                               |

<sup>1)</sup> Without load <sup>2)</sup> U<sub>b</sub> and T<sub>a</sub> constant <sup>3)</sup> Of Sr <sup>4)</sup> +100 °C for 15 minutes

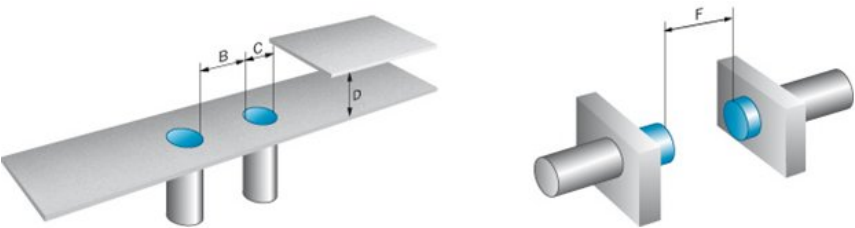
### Reduction factors

|                             |                                                |
|-----------------------------|------------------------------------------------|
| Note:                       | The values are reference values which may vary |
| Stainless steel (V2A, 304): | Ca. 0.65                                       |
| Copper (Cu):                | Ca. 0.2                                        |
| Aluminum (Al):              | Ca. 0.3                                        |
| Brass (Br):                 | Ca. 0.4                                        |

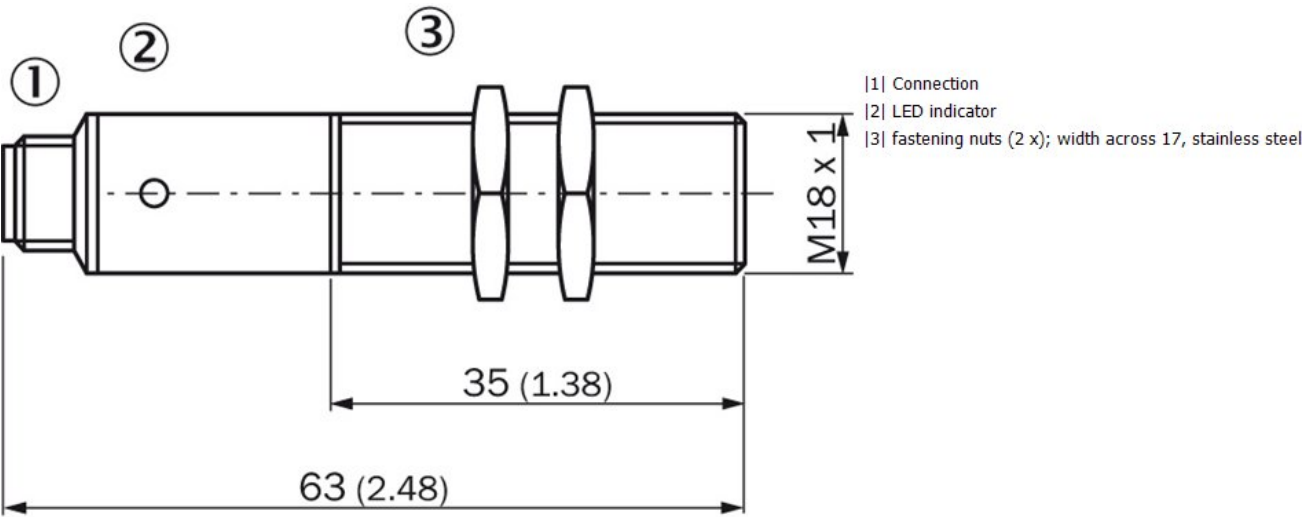
### Installation note

|         |                                                                          |
|---------|--------------------------------------------------------------------------|
| A:      | 9 mm                                                                     |
| B:      | 18 mm                                                                    |
| C:      | 18 mm                                                                    |
| D:      | 24 mm                                                                    |
| E:      | Aluminium: 5.4 mm, Stainless steel: 1,8 mm, Brass: 5.4 mm, Steel: 1.8 mm |
| F:      | 64 mm                                                                    |
| Remark: | Associated graphic see "Installation"                                    |

Installation note



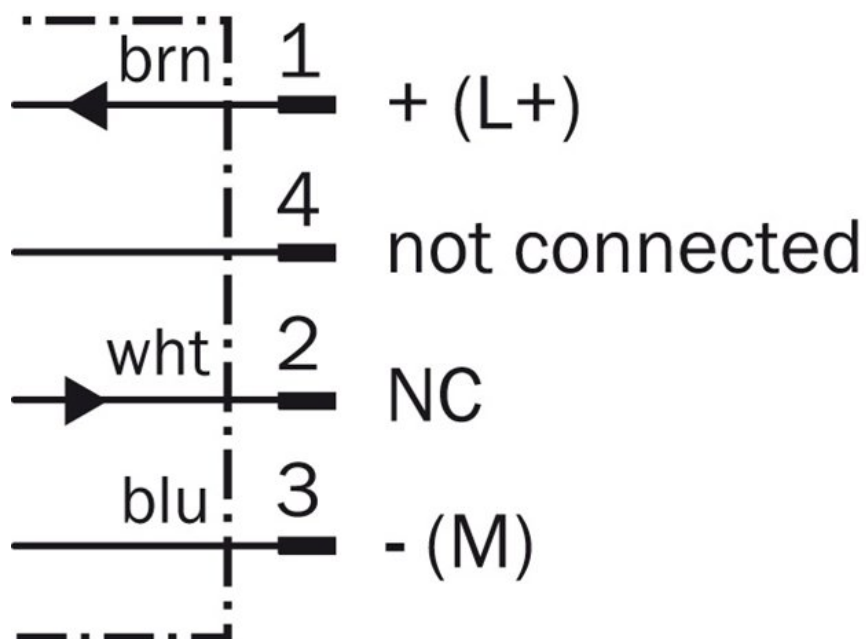
Dimensional drawing



All dimensions in mm (inch)

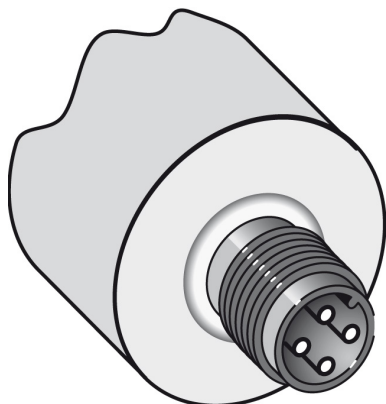
#### Connection diagram

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#### Connection type

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