

# Inductive sensor

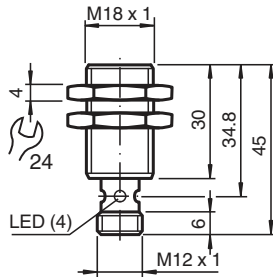
## NBB8-18GM30-E2-V1



- 8 mm flush
- Increased operating distance
- Extended temperature range



### Dimensions



### Technical Data

| General specifications      |       |   |
|-----------------------------|-------|---|
| Switching function          |       | Normally open (NO)  |
| Output type                 |       | PNP   |
| Rated operating distance    | $s_n$ | 8 mm  |
| Installation                |       | flush   |
| Output polarity             |       | DC  |
| Assured operating distance  | $s_a$ | 0 ... 6.48 mm ( -25 ... 70 °C (-13 ... 158 °F) )<br>0 ... 6.08 mm ( -40 ... -25 °C (-40 ... -13 °F) ) |
| Reduction factor $r_{AI}$   |       | 0.45  |
| Reduction factor $r_{Cu}$   |       | 0.4   |
| Reduction factor $r_{304}$  |       | 0.7   |
| Output type                 |       | 3-wire  |
| Nominal ratings             |       |   |
| Operating voltage           | $U_B$ | 10 ... 30 V   |
| Switching frequency         | $f$   | 0 ... 500 Hz  |
| Hysteresis                  | $H$   | typ. 5%   |
| Reverse polarity protection |       | reverse polarity protected  |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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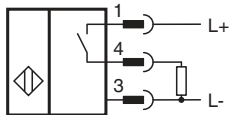
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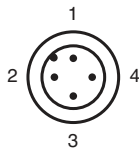
## Technical Data

|   |       |  |
|---|-------|--|
| Short-circuit protection                        |       | pulsing  |
| Voltage drop                                    | $U_d$ | $\leq 3 \text{ V}$   |
| Operating current                               | $I_L$ | 0 ... 100 mA   |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C                               |
| No-load supply current                          | $I_0$ | $\leq 15 \text{ mA}$   |
| Time delay before availability                  | $t_v$ | $\leq 20 \text{ ms}$   |
| Switching state indicator                       |       | LED, yellow  |
| <b>Functional safety related parameters</b>     |       |  |
| MTTF <sub>d</sub>                               |       | 2090 a   |
| Mission Time (T <sub>M</sub> )                  |       | 20 a   |
| Diagnostic Coverage (DC)                        |       | 0 %  |
| <b>Compliance with standards and directives</b> |       |  |
| Standard conformity                             |       |  |
| Standards                                       |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                    |
| <b>Approvals and certificates</b>               |       |  |
| UL approval                                     |       | cULus Listed, General Purpose  |
| CSA approval                                    |       | cCSAus Listed, General Purpose   |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| <b>Ambient conditions</b>                       |       |  |
| Ambient temperature                             |       | -40 ... 70 °C (-40 ... 158 °F)   |
| <b>Mechanical specifications</b>                |       |  |
| Connection type                                 |       | Connector M12 x 1 , 4-pin  |
| Housing material                                |       | brass, nickel-plated   |
| Sensing face                                    |       | PBT  |
| Degree of protection                            |       | IP67   |

## Connection







## Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

## Accessories

|   |                    |                                       |
|---|--------------------|---------------------------------------|
|  | <b>BF 18-F</b>     | Plastic mounting adapter, 18 mm       |
|  | <b>V1-G-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>V1-W-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>EXG-18</b>      | Quick mounting bracket with dead stop |