

# Inductive sensor

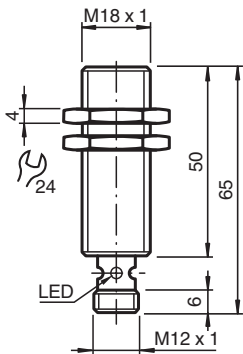
## NBB5-18GM50-E0-V1



- Basic series
- 5 mm flush



### Dimensions



### Technical Data

| General specifications      |       |                            |
|-----------------------------|-------|----------------------------|
| Switching function          |       | Normally open (NO)         |
| Output type                 |       | NPN                        |
| Rated operating distance    | $s_n$ | 5 mm                       |
| Installation                |       | flush                      |
| Output polarity             |       | DC                         |
| Assured operating distance  | $s_a$ | 0 ... 4.05 mm              |
| Reduction factor $r_{Al}$   |       | 0.3                        |
| Reduction factor $r_{Cu}$   |       | 0.3                        |
| Reduction factor $r_{304}$  |       | 0.7                        |
| Nominal ratings             |       |                            |
| Operating voltage           | $U_B$ | 10 ... 30 V                |
| Switching frequency         | $f$   | 0 ... 800 Hz               |
| Hysteresis                  | $H$   | typ. 5%                    |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |

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

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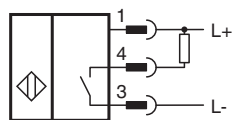
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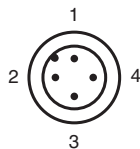
Technical Data

|                                          |       |                                                                           |
|------------------------------------------|-------|---------------------------------------------------------------------------|
| Voltage drop                             | $U_d$ | $\leq 3\text{ V}$                                                         |
| Operating current                        | $I_L$ | 0 ... 200 mA                                                              |
| Off-state current                        | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C                              |
| No-load supply current                   | $I_0$ | $\leq 20\text{ mA}$                                                       |
| Switching state indicator                |       | Multihole-LED, yellow                                                     |
| Functional safety related parameters     |       |                                                                           |
| MTTF <sub>d</sub>                        |       | 1920 a                                                                    |
| Mission Time (T <sub>M</sub> )           |       | 20 a                                                                      |
| Diagnostic Coverage (DC)                 |       | 0 %                                                                       |
| Compliance with standards and directives |       |                                                                           |
| Standard conformity                      |       |                                                                           |
| Standards                                |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                   |
| Approvals and certificates               |       |                                                                           |
| UL approval                              |       | cULus Listed, General Purpose                                             |
| CSA approval                             |       | cCSAus Listed, General Purpose                                            |
| CCC approval                             |       | CCC approval / marking not required for products rated $\leq 36\text{ V}$ |
| Ambient conditions                       |       |                                                                           |
| Ambient temperature                      |       | -25 ... 70 °C (-13 ... 158 °F)                                            |
| Mechanical specifications                |       |                                                                           |
| 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>V1-G-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>BF 18</b>       | Mounting flange, 18 mm                |
|  | <b>V1-W-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>EXG-18</b>      | Quick mounting bracket with dead stop |