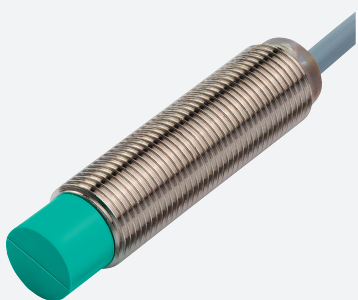


# Inductive sensor

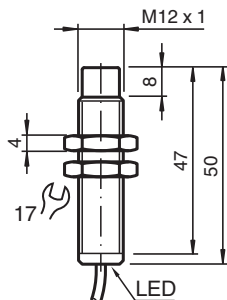
## NBN8-12GM50-E2



- 8 mm non-flush
- Increased operating distance



### Dimensions



### Technical Data

| General specifications              |                |                    |
|-------------------------------------|----------------|--------------------|
| Switching function                  |                | Normally open (NO) |
| Output type                         |                | PNP                |
| Rated operating distance            | s <sub>n</sub> | 8 mm               |
| Installation                        |                | non-flush          |
| Output polarity                     |                | DC                 |
| Assured operating distance          | s <sub>a</sub> | 0 ... 6.48 mm      |
| Reduction factor r <sub>Al</sub>    |                | 0.39               |
| Reduction factor r <sub>Cu</sub>    |                | 0.3                |
| Reduction factor r <sub>304</sub>   |                | 0.7                |
| Reduction factor r <sub>Brass</sub> |                | 0.45               |
| Output type                         |                | 3-wire             |
| Nominal ratings                     |                |                    |
| Operating voltage                   | U <sub>B</sub> | 10 ... 30 V        |
| Switching frequency                 | f              | 0 ... 1500 Hz      |
| Hysteresis                          | H              | typ. 5%            |

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

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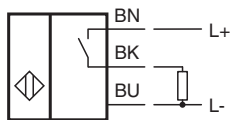
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**PEPPERL+FUCHS**

## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reverse polarity protection                     |       | reverse polarity protected                                                                  |
| Short-circuit protection                        |       | pulsing                                                                                     |
| 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                          | $I_0$ | $\leq 16 \text{ mA}$                                                                        |
| Switching state indicator                       |       | all direction LED, yellow                                                                   |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 1560 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>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012 |
| <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                             |       | -25 ... 70 °C (-13 ... 158 °F)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cabl PVC , 2 m                                                                              |
| Core cross-section                              |       | 0.14 mm <sup>2</sup>                                                                        |
| Housing material                                |       | brass, nickel-plated                                                                        |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP67                                                                                        |
| Cable                                           |       |                                                                                             |
| Cable diameter                                  |       | 3 mm + 0.3 mm                                                                               |
| Bending radius                                  |       | > 10 x cable diameter                                                                       |
| <b>General information</b>                      |       |                                                                                             |
| Scope of delivery                               |       | 2 self locking nuts in scope of delivery                                                    |

## Connection



## Accessories


**BF 12**

Mounting flange, 12 mm