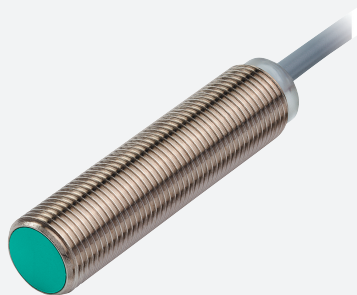


# Inductive sensor

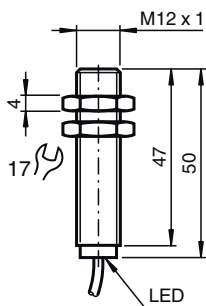
## NBB4-12GM50-A0



- 4 mm flush
- Increased operating distance



### Dimensions



### Technical Data

| General specifications               |       |                                        |
|--------------------------------------|-------|----------------------------------------|
| Switching function                   |       | complementary                          |
| Output type                          |       | NPN                                    |
| Rated operating distance             | $s_n$ | 4 mm                                   |
| Installation                         |       | flush                                  |
| Output polarity                      |       | DC                                     |
| Assured operating distance           | $s_a$ | 0 ... 3.24 mm                          |
| Reduction factor $r_{Al}$            |       | 0.39                                   |
| 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 ... 1500 Hz                          |
| Hysteresis                           | $H$   | typ. 5%                                |
| Reverse polarity protection          |       | reverse polarity protected             |
| Short-circuit protection             |       | pulsing                                |
| Voltage drop                         | $U_d$ | $\leq 3$ V                             |
| Operating current                    | $I_L$ | 0 ... 200 mA                           |
| Off-state current                    | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C |
| No-load supply current               | $I_0$ | $\leq 20$ mA                           |
| Switching state indicator            |       | LED, yellow                            |
| Functional safety related parameters |       |                                        |

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

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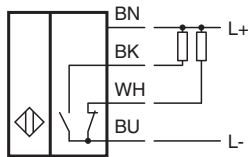
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**PEPPERL+FUCHS**

## Technical Data

|                                                 |                                                              |
|-------------------------------------------------|--------------------------------------------------------------|
| 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>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 ≤36 V |
| <b>Ambient conditions</b>                       |                                                              |
| Ambient temperature                             | -25 ... 70 °C (-13 ... 158 °F)                               |
| <b>Mechanical specifications</b>                |                                                              |
| Connection type                                 | cable PVC , 2 m                                              |
| Core cross-section                              | 0.14 mm <sup>2</sup>                                         |
| Housing material                                | brass, nickel-plated                                         |
| Sensing face                                    | PBT                                                          |
| Degree of protection                            | IP67                                                         |
| <b>General information</b>                      |                                                              |
| Scope of delivery                               | 2 self locking nuts in scope of delivery                     |

## Connection



## Accessories

|                                                                                     |               |                                       |
|-------------------------------------------------------------------------------------|---------------|---------------------------------------|
|  | <b>BF 12</b>  | Mounting flange, 12 mm                |
|  | <b>EXG-12</b> | Quick mounting bracket with dead stop |