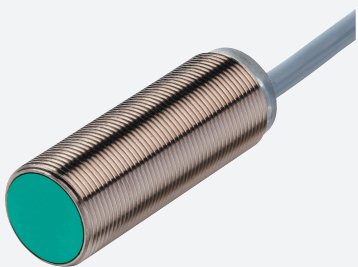


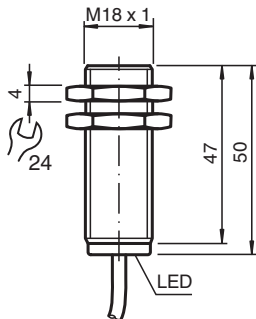
Inductive sensor  
NBB8-18GM50-E0-3M



■ Increased operating distance



Dimensions



Technical Data

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| General specifications      |       |                            |
| Switching function          |       | Normally open (NO)         |
| Output type                 |       | NPN                        |
| Rated operating distance    | $s_n$ | 8 mm                       |
| Installation                |       | flush                      |
| Output polarity             |       | DC                         |
| Assured operating distance  | $s_a$ | 0 ... 6.48 mm              |
| Reduction factor $r_{Al}$   |       | 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 |

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

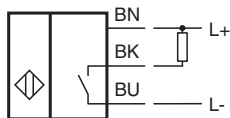
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| 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                          | $I_0$ | $\leq 15 \text{ mA}$                                                                        |
| 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>                               |       | 1359.8 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                                                               |
| 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                                 |       | cable                                                                                       |
| Housing material                                |       | brass, nickel-plated                                                                        |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP67                                                                                        |
| Cable                                           |       |                                                                                             |
| Cable diameter                                  |       | 4.8 mm $\pm$ 0.2 mm                                                                         |
| Bending radius                                  |       | > 10 x cable diameter                                                                       |
| Material                                        |       | PVC                                                                                         |
| Color                                           |       | grey                                                                                        |
| Number of cores                                 |       | 3                                                                                           |
| Core cross-section                              |       | 0.34 mm <sup>2</sup>                                                                        |
| Length                                          | L     | 3 m                                                                                         |
| <b>General information</b>                      |       |                                                                                             |
| Scope of delivery                               |       | 2 self locking nuts in scope of delivery                                                    |

## Connection



## Accessories

|                                                                                     |              |                        |
|-------------------------------------------------------------------------------------|--------------|------------------------|
|  | <b>BF 18</b> | Mounting flange, 18 mm |
|-------------------------------------------------------------------------------------|--------------|------------------------|

Accessories

|                                                                                   |               |                                       |
|-----------------------------------------------------------------------------------|---------------|---------------------------------------|
|  | <b>EXG-18</b> | Quick mounting bracket with dead stop |
|-----------------------------------------------------------------------------------|---------------|---------------------------------------|

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 70115552\_eng.pdf