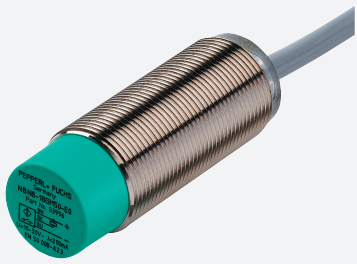


## Inductive sensor

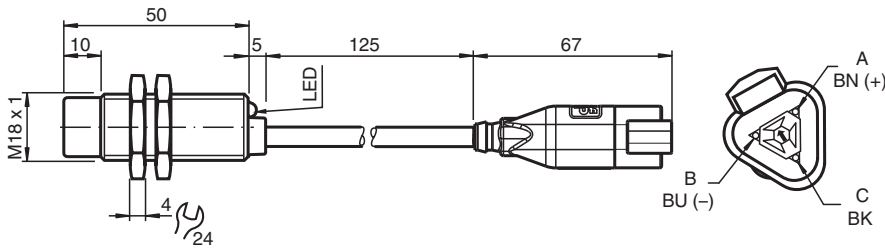
### NBN12-18GM50-E2-M-150MM-3DT0-4



- 12 mm non-flush
- Extended temperature range  
-40 ... +85 °C
- Increased noise immunity 100 V/m
- With increased sealing, protection class  
IP68 / IP69K
- Highly shock and vibration resistant



## Dimensions



## Technical Data

### General specifications

|                              |       |                    |
|------------------------------|-------|--------------------|
| Switching function           |       | Normally open (NO) |
| Output type                  |       | PNP                |
| Rated operating distance     | $s_n$ | 12 mm              |
| Installation                 |       | non-flush          |
| Output polarity              |       | DC                 |
| Assured operating distance   | $s_a$ | 0 ... 9.72 mm      |
| Reduction factor $r_{Al}$    |       | 0.5                |
| Reduction factor $r_{Cu}$    |       | 0.4                |
| Reduction factor $r_{304}$   |       | 0.7                |
| Reduction factor $r_{Brass}$ |       | 0.5                |
| Output type                  |       | 3-wire             |

### Nominal ratings

|                                  |           |                            |
|----------------------------------|-----------|----------------------------|
| Operating voltage                | $U_B$     | 5 ... 60 V                 |
| Switching frequency              | $f$       | 0 ... 1500 Hz              |
| Hysteresis                       | $H$       | type 5 %                   |
| Reverse polarity protection      |           | reverse polarity protected |
| Short-circuit protection         |           | pulsing                    |
| Inductive overvoltage protection |           | yes                        |
| Surge suppression                |           | yes                        |
| Voltage drop                     | $U_d$     | $\leq 2$ V                 |
| Rated insulation voltage         | $U_{BIS}$ | 60 V                       |
| Operating current                | $I_L$     | 0 ... 200 mA               |

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

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**PEPPERL+FUCHS**

## Technical Data

|                                                 |       |                                                                                     |
|-------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C                                              |
| No-load supply current                          | $I_0$ | $\leq 7$ mA                                                                         |
| Time delay before availability                  | $t_v$ | $\leq 220$ ms                                                                       |
| Switching state indicator                       |       | LED, yellow                                                                         |
| <b>Functional safety related parameters</b>     |       |                                                                                     |
| MTTF <sub>d</sub>                               |       | 1085.5 a                                                                            |
| Mission Time (T <sub>M</sub> )                  |       | 20 a                                                                                |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                                 |
| <b>Compliance with standards and directives</b> |       |                                                                                     |
| Standard conformity                             |       |                                                                                     |
| Standards                                       |       | EN IEC 60947-5-2                                                                    |
| <b>Ambient conditions</b>                       |       |                                                                                     |
| Ambient temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                                      |
| Storage temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                                      |
| <b>Mechanical specifications</b>                |       |                                                                                     |
| Connection type                                 |       | fixed cable with plug                                                               |
| Housing material                                |       | brass, nickel-plated                                                                |
| Sensing face                                    |       | PBT                                                                                 |
| Degree of protection                            |       | IP68 / IP69K                                                                        |
| Connector                                       |       |                                                                                     |
| Connection assembly                             |       | Deutsch connector DT04-3P-CE02<br>Deutsch wedge W3P<br>Deutsch contact 1060-16-0622 |
| Cable                                           |       |                                                                                     |
| Cable diameter                                  |       | 6 mm $\pm$ 0.2 mm                                                                   |
| Bending radius                                  |       | > 6 x cable diameter                                                                |
| Material                                        |       | PUR                                                                                 |
| Color                                           |       | black                                                                               |
| Number of cores                                 |       | 3                                                                                   |
| Core cross section                              |       | 0.75 mm <sup>2</sup>                                                                |
| Length                                          | L     | L = 125 mm                                                                          |
| Mass                                            |       | 62 g                                                                                |
| <b>Dimensions</b>                               |       |                                                                                     |
| Length                                          |       | 55 mm                                                                               |
| Diameter                                        |       | 18 mm                                                                               |

## Connection

