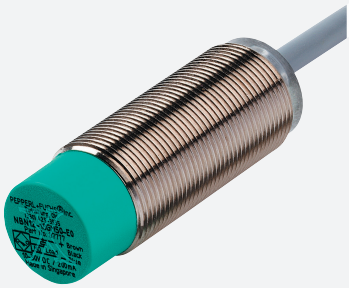


## Inductive sensor

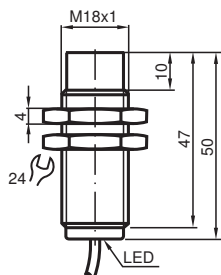
NBN12-18GM50-E0-Y70113765



- Basic series
- Increased operating distance
- 12 mm non-flush



## Dimensions



## Technical Data

### General specifications

|                            |       |                    |
|----------------------------|-------|--------------------|
| Switching function         |       | Normally open (NO) |
| Output type                |       | NPN                |
| 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                |
| Output type                |       | 3-wire             |

### Nominal ratings

|                   |       |             |
|-------------------|-------|-------------|
| Operating voltage | $U_B$ | 10 ... 30 V |
|-------------------|-------|-------------|

## Technical Data

|                             |                |                                   |
|-----------------------------|----------------|-----------------------------------|
| Switching frequency         | f              | 0 ... 200 Hz                      |
| Hysteresis                  | H              | typ. 5%                           |
| Reverse polarity protection |                | reverse polarity protected        |
| Short-circuit protection    |                | pulsing                           |
| Voltage drop                | U <sub>d</sub> | ≤ 3 V                             |
| Operating current           | I <sub>L</sub> | 0 ... 200 mA                      |
| Off-state current           | I <sub>r</sub> | 0 ... 0.5 mA typ. 0.1 µA at 25 °C |
| No-load supply current      | I <sub>0</sub> | ≤ 10 mA                           |
| Switching state indicator   |                | all direction LED, yellow         |

### Functional safety related parameters

|                                |  |        |
|--------------------------------|--|--------|
| MTTF <sub>d</sub>              |  | 1500 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>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012 |

### Approvals and certificates

|              |  |                                                              |
|--------------|--|--------------------------------------------------------------|
| UL approval  |  | cULus Listed, General Purpose, Class 2 Power Source          |
| CCC approval |  | CCC approval / marking not required for products rated ≤36 V |

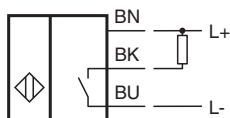
### Ambient conditions

|                     |  |                                |
|---------------------|--|--------------------------------|
| Ambient temperature |  | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--|--------------------------------|

### Mechanical specifications

|                      |  |                       |
|----------------------|--|-----------------------|
| Connection type      |  | cabl PVC , 3 m        |
| Core cross-section   |  | 0.34 mm <sup>2</sup>  |
| Housing material     |  | brass, nickel-plated  |
| Sensing face         |  | PBT                   |
| Degree of protection |  | IP67                  |
| Cable                |  |                       |
| Cable diameter       |  | 4.8 mm ± 0.2 mm       |
| Bending radius       |  | > 10 x cable diameter |

## Connection



## Accessories

|                                                                                     |                |                                 |
|-------------------------------------------------------------------------------------|----------------|---------------------------------|
|  | <b>BF 18-F</b> | Plastic mounting adapter, 18 mm |
|-------------------------------------------------------------------------------------|----------------|---------------------------------|