



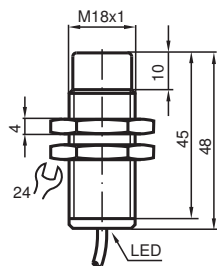
# Inductive sensor

## NCN12-18GM50-Z5

- 12 mm non-flush
- 2-wire DC
- Increased operating distance



### Dimensions



### Technical Data

| General specifications              |                |                      |
|-------------------------------------|----------------|----------------------|
| Switching function                  |                | Normally closed (NC) |
| Output type                         |                | Two-wire             |
| Rated operating distance            | s <sub>n</sub> | 12 mm                |
| Installation                        |                | non-flush            |
| Output polarity                     |                | DC                   |
| Assured operating distance          | s <sub>a</sub> | 0 ... 9.1 mm         |
| Reduction factor r <sub>Al</sub>    |                | 0.5                  |
| Reduction factor r <sub>Cu</sub>    |                | 0.45                 |
| Reduction factor r <sub>304</sub>   |                | 0.75                 |
| Reduction factor r <sub>Brass</sub> |                | 0.55                 |
| Output type                         |                | 2-wire               |
| Nominal ratings                     |                |                      |

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

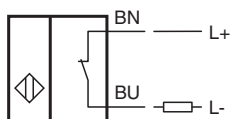
Pepperl+Fuchs Group      USA: +1 330 486 0001      Germany: +49 621 776 1111      Singapore: +65 6779 9091  
www.pepperl-fuchs.com      fa-info@us.pepperl-fuchs.com      fa-info@de.pepperl-fuchs.com      fa-info@sg.pepperl-fuchs.com



## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Operating voltage                               | $U_B$ | 3.5 ... 30 V                                                                                |
| Switching frequency                             | $f$   | 0 ... 1000 Hz                                                                               |
| Reverse polarity protection                     |       | reverse polarity-conductive                                                                 |
| Short-circuit protection                        |       | pulsing                                                                                     |
| Voltage drop                                    | $U_d$ | $\leq 3.5$ V                                                                                |
| Temperature drift                               |       | $\pm 15\%$                                                                                  |
| Operating current                               | $I_L$ | 2 ... 100 mA                                                                                |
| Off-state current                               | $I_r$ | typ. 0.8 mA                                                                                 |
| Switching state indicator                       |       | LED, yellow                                                                                 |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 1556 a                                                                                      |
| Mission Time ( $T_M$ )                          |       | 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 $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                                              |
| Storage temperature                             |       | -25 ... 85 °C (-13 ... 185 °F)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cable PVC , 2 m                                                                             |
| Core cross-section                              |       | 0.34 mm <sup>2</sup>                                                                        |
| Housing material                                |       | brass, nickel-plated                                                                        |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP67                                                                                        |

## Connection



## Accessories



BF 18

Mounting flange, 18 mm