

# Inductive sensor

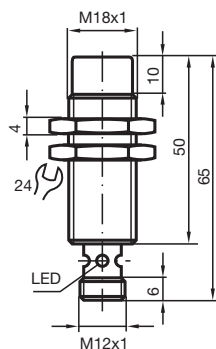
## NBN12-18GM50-E2-V1-Y261468



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



### Dimensions



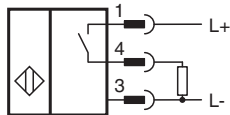
### Technical Data

| General specifications            |                |                                                                                                  |
|-----------------------------------|----------------|--------------------------------------------------------------------------------------------------|
| Switching function                |                | Normally open (NO)                                                                               |
| Output type                       |                | PNP                                                                                              |
| Rated operating distance          | s <sub>n</sub> | 12 mm                                                                                            |
| Installation                      |                | non-flush                                                                                        |
| Output polarity                   |                | DC                                                                                               |
| Assured operating distance        | s <sub>a</sub> | 0 ... 9.72 mm ( -25 ... 70 °C (-13 ... 158 °F) )<br>0 ... mm ( -40 ... -25 °C (-40 ... -13 °F) ) |
| Reduction factor r <sub>Al</sub>  |                | 0.5                                                                                              |
| Reduction factor r <sub>Cu</sub>  |                | 0.4                                                                                              |
| Reduction factor r <sub>304</sub> |                | 0.7                                                                                              |
| Nominal ratings                   |                |                                                                                                  |
| Operating voltage                 | U <sub>B</sub> | 10 ... 30 V                                                                                      |
| Switching frequency               | f              | 0 ... 200 Hz                                                                                     |

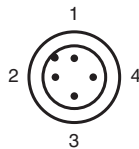
# Technical Data

|                                                 |       |                                                                           |
|-------------------------------------------------|-------|---------------------------------------------------------------------------|
| Hysteresis                                      | H     | typ. 5%                                                                   |
| Reverse polarity protection                     |       | reverse polarity protected                                                |
| Short-circuit protection                        |       | pulsing                                                                   |
| Voltage drop                                    | $U_d$ | $\leq 3\text{ V}$                                                         |
| Operating current                               | $I_L$ | 0 ... 200 mA                                                              |
| No-load supply current                          | $I_0$ | $\leq 10\text{ mA}$                                                       |
| Switching state indicator                       |       | Multihole-LED, yellow                                                     |
| <b>Functional safety related parameters</b>     |       |                                                                           |
| MTTF <sub>d</sub>                               |       | 1570 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 $\leq 36\text{ V}$ |
| <b>Ambient conditions</b>                       |       |                                                                           |
| Ambient temperature                             |       | -40 ... 70 °C (-40 ... 158 °F)                                            |
| <b>Mechanical specifications</b>                |       |                                                                           |
| Connection type                                 |       | Connector M12 x 1 , 4-pin                                                 |
| Housing material                                |       | brass, nickel-plated                                                      |
| Sensing face                                    |       | PBT                                                                       |
| Degree of protection                            |       | IP67                                                                      |

# Connection



# Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

Accessories

|                                                                                   |                    |                                       |
|-----------------------------------------------------------------------------------|--------------------|---------------------------------------|
|  | <b>BF 18</b>       | Mounting flange, 18 mm                |
|  | <b>V1-G-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>V1-W-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |

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