



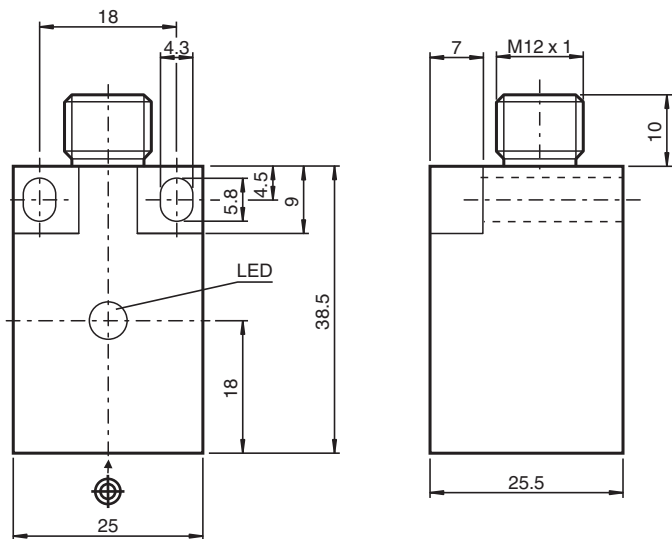
# Inductive sensor

## NBN10-F10-E2-V1

- 10 mm non-flush
- 3-wire DC



### Dimensions



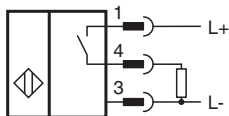
### Technical Data

| General specifications   |                    |       |  |
|--------------------------|--------------------|-------|--|
| Switching function       | Normally open (NO) |       |  |
| Output type              | PNP                |       |  |
| Rated operating distance | $s_n$              | 10 mm |  |
| Installation             | non-flush          |       |  |
| Output polarity          | DC                 |       |  |

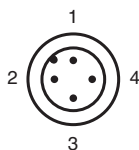
## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Assured operating distance                      | $s_a$ | 0 ... 8.1 mm                                                                                |
| Reduction factor $r_{Al}$                       |       | 0.3                                                                                         |
| Reduction factor $r_{Cu}$                       |       | 0.2                                                                                         |
| Reduction factor $r_{304}$                      |       | 0.6                                                                                         |
| Output type                                     |       | 3-wire                                                                                      |
| <b>Nominal ratings</b>                          |       |                                                                                             |
| Operating voltage                               | $U_B$ | 10 ... 30 V DC                                                                              |
| Switching frequency                             | $f$   | 0 ... 500 Hz                                                                                |
| Hysteresis                                      | $H$   | typ. 5%                                                                                     |
| Reverse polarity protection                     |       | reverse polarity protected                                                                  |
| Short-circuit protection                        |       | pulsing                                                                                     |
| Voltage drop                                    | $U_d$ | $\leq 3$ V                                                                                  |
| Operating current                               | $I_L$ | 0 ... 100 mA                                                                                |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C                                                      |
| No-load supply current                          | $I_0$ | $\leq 15$ mA                                                                                |
| Switching state indicator                       |       | LED, yellow                                                                                 |
| <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 $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | Connector plug M12 x 1 , 4-pin                                                              |
| Housing material                                |       | PBT                                                                                         |
| 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>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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