

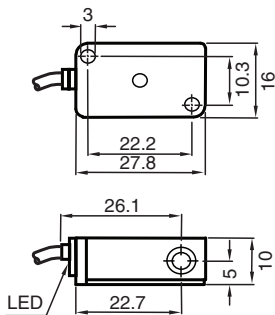


Inductive sensor  
NBN4-V3-E0

- 3-wire DC
- 4 mm non-flush



Dimensions



Technical Data

| General specifications   |                |                    |  |
|--------------------------|----------------|--------------------|--|
| Switching function       |                | Normally open (NO) |  |
| Output type              |                | NPN                |  |
| Rated operating distance | S <sub>n</sub> | 4 mm               |  |
| Installation             |                | non-flush          |  |
| Output polarity          |                | DC                 |  |

## Technical Data

|                                                 |       |                                                                    |
|-------------------------------------------------|-------|--------------------------------------------------------------------|
| Assured operating distance                      | $s_a$ | 0 ... 3.24 mm                                                      |
| Reduction factor $r_{Al}$                       |       | 0.35                                                               |
| Reduction factor $r_{Cu}$                       |       | 0.2                                                                |
| Reduction factor $r_{304}$                      |       | 0.7                                                                |
| <b>Nominal ratings</b>                          |       |                                                                    |
| Operating voltage                               | $U_B$ | 10 ... 30 V DC                                                     |
| Switching frequency                             | $f$   | 0 ... 500 Hz                                                       |
| 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>Functional safety related parameters</b>     |       |                                                                    |
| MTTF <sub>d</sub>                               |       | 3560 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>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 $\leq 36$ V |
| <b>Ambient conditions</b>                       |       |                                                                    |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                     |
| <b>Mechanical specifications</b>                |       |                                                                    |
| Connection type                                 |       | cablE PVC , 130 mm                                                 |
| Core cross-section                              |       | 0.14 mm <sup>2</sup>                                               |
| Housing material                                |       | PBT                                                                |
| Sensing face                                    |       | PBT                                                                |
| Degree of protection                            |       | IP67                                                               |
| Mass                                            |       | 10 g                                                               |

## Connection

