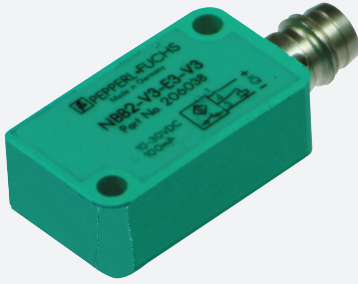


# Inductive sensor

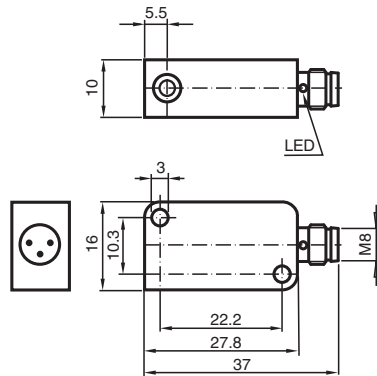
## NBN6-V3-E1-V3



- 6 mm non-flush
- 3-wire DC



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NPN                  |
| Rated operating distance   | $s_n$ | 6 mm                 |
| Installation               |       | non-flush            |
| Output polarity            |       | DC                   |
| Assured operating distance | $s_a$ | 0 ... 4.8 mm         |
| Reduction factor $r_{Al}$  |       | 0.35                 |
| Reduction factor $r_{Cu}$  |       | 0.2                  |
| Reduction factor $r_{304}$ |       | 0.7                  |
| Output type                |       | 3-wire               |

#### Nominal ratings

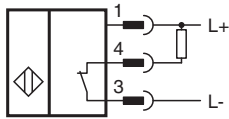
|                             |       |  |
|-----------------------------|-------|--|
| Operating voltage           | $U_B$ | 10 ... 30 V DC                         |
| Switching frequency         | $f$   | 0 ... 1000 Hz                          |
| Reverse polarity protection |       | reverse polarity 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                           |

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## Technical Data

|   |  |
|---|--|
| Switching state indicator                       | LED, yellow  |
| <b>Functional safety related parameters</b>     |  |
| MTTF <sub>d</sub>                               | 1920 a   |
| Mission Time (T <sub>M</sub> )                  | 20 a   |
| Diagnostic Coverage (DC)                        | 0 %  |
| <b>Compliance with standards and directives</b> |  |
| Standard conformity                             |  |
| Standards                                       | EN IEC 60947-5-2   |
| <b>Approvals and certificates</b>               |  |
| CCC approval                                    | CCC approval / marking not required for products rated ≤36 V |
| <b>Ambient conditions</b>                       |  |
| Ambient temperature                             | -25 ... 70 °C (-13 ... 158 °F)                               |
| <b>Mechanical specifications</b>                |  |
| Connection type                                 | Connector plug M8 x 1 , 3-pin                                |
| Housing material                                | PBT  |
| Sensing face                                    | PBT  |
| Degree of protection                            | IP67   |
| Tightening torque, fastening screws             | ≤ 0.4 Nm   |
| Dimensions                                      |  |
| Height  | 10.2 mm  |
| Width   | 27.8 mm  |
| Length  | 16 mm  |

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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