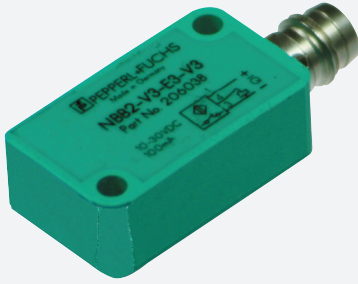


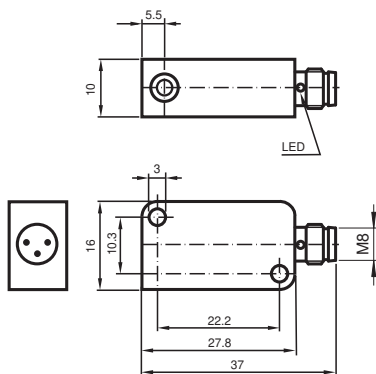
# Inductive sensor NBB3-V3-E1-V3



- 3 mm flush
- 3-wire DC



## Dimensions



## Technical Data

### General specifications

|                              |       |                      |
|------------------------------|-------|----------------------|
| Switching function           |       | Normally closed (NC) |
| Output type                  |       | NPN                  |
| Rated operating distance     | $s_n$ | 3 mm                 |
| Installation                 |       | flush                |
| Output polarity              |       | DC                   |
| Assured operating distance   | $s_a$ | 0 ... 2.43 mm        |
| Reduction factor $r_{Al}$    |       | 0.35                 |
| Reduction factor $r_{Cu}$    |       | 0.33                 |
| Reduction factor $r_{304}$   |       | 0.82                 |
| Reduction factor $r_{Brass}$ |       | 0.5                  |
| Output type                  |       | 3-wire               |

### Nominal ratings

|                   |       |                |
|-------------------|-------|----------------|
| Operating voltage | $U_B$ | 10 ... 30 V DC |
|-------------------|-------|----------------|

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

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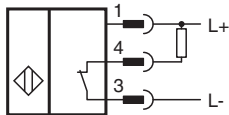
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 PEPPERL+FUCHS

## Technical Data

|   |       |  |
|---|-------|--|
| 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                          | $I_o$ | $\leq 15$ mA   |
| Switching state indicator                       |       | LED, yellow  |
| <b>Functional safety related parameters</b>     |       |  |
| MTTF <sub>d</sub>                               |       | 2300 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>               |       |  |
| 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 M8 x 1 , 3-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) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

**Accessories**

|   |                            |   |
|---|----------------------------|---|
|  | <p><b>V3-WM-2M-PUR</b></p> | <p>Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey</p> |
|---|----------------------------|---|

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