



### Model Number

**NBN6-V3-E0-V3**

### Features

- 6 mm non-flush
- 3-wire DC

### Accessories

#### V3-WM

Female connector, M8, 3-pin, field attachable

#### V3-GM

Female connector, M8, 3-pin, field attachable

#### V3-WM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

#### V3-GM-2M-PUR

Cable socket, M8, 3-pin, PUR cable

## Technical Data

### General specifications

|                            |       |              |    |
|----------------------------|-------|--------------|----|
| Switching element function |       | NPN          | NO |
| 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          |    |

### 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                           |
| Switching state indicator   |       | LED, yellow                            |

### Functional safety related parameters

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 1920 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 0 %    |

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--------------------------------|

### Mechanical specifications

|                      |                         |
|----------------------|-------------------------|
| Connection type      | Connector M8 x 1, 3-pin |
| Housing material     | PBT                     |
| Sensing face         | PBT                     |
| Degree of protection | IP67                    |

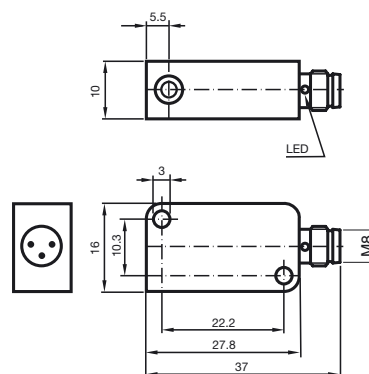
### Compliance with standards and directives

|                     |                                         |
|---------------------|-----------------------------------------|
| Standard conformity |                                         |
| Standards           | EN 60947-5-2:2007<br>IEC 60947-5-2:2007 |

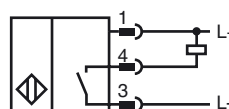
### Approvals and certificates

|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| CCC approval | CCC approval / marking not required for products rated $\leq 36$ V |
|--------------|--------------------------------------------------------------------|

## Dimensions



## Electrical Connection





Pinout



Wire colors in accordance with EN 60947-5-2

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