



### Model Number

NBN4-F29-E3-0,5M-V3

### Features

- Basic series
- 4 mm non-flush

## Technical Data

### General specifications

|                            |                      |
|----------------------------|----------------------|
| Switching function         | Normally closed (NC) |
| Output type                | PNP                  |
| Rated operating distance   | $s_n$ 4 mm           |
| Installation               | non-flush            |
| Output polarity            | DC                   |
| Assured operating distance | $s_a$ 0 ... 3.24 mm  |
| Reduction factor $r_{AI}$  | 0.4                  |
| Reduction factor $r_{CU}$  | 0.3                  |
| Reduction factor $r_{304}$ | 0.7                  |
| Output type                | 3-wire               |

### Nominal ratings

|                                |       |                                        |
|--------------------------------|-------|----------------------------------------|
| Operating voltage              | $U_B$ | 4.75 ... 30 V DC                       |
| Switching frequency            | $f$   | 0 ... 1000 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         | $I_0$ | $\leq 10$ mA                           |
| Time delay before availability | $t_v$ | $\leq 5$ ms                            |
| Switching state indicator      |       | LED, yellow                            |

### Functional safety related parameters

|                          |        |
|--------------------------|--------|
| MTTF <sub>d</sub>        | 2133 a |
| Mission Time ( $T_M$ )   | 20 a   |
| Diagnostic Coverage (DC) | 0 %    |

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |

### Mechanical specifications

|                      |                                       |
|----------------------|---------------------------------------|
| Connection type      | Cable connector M8 x 1 PVC, L = 0.5 m |
| Core cross-section   | 0.14 mm <sup>2</sup>                  |
| Housing material     | PPS                                   |
| Sensing face         | PPS                                   |
| Degree of protection | IP67                                  |

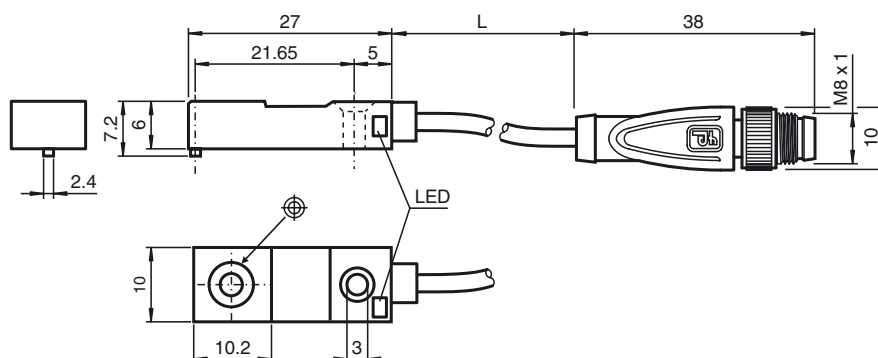
### Compliance with standards and directives

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| 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 |

### Approvals and certificates

|              |                                                                    |
|--------------|--------------------------------------------------------------------|
| UL approval  | cULus Listed, General Purpose                                      |
| CCC approval | CCC approval / marking not required for products rated $\leq 36$ V |

## Dimensions



## Electrical Connection

