



## Model Number

NEN6-6,5M40-E1-V1

## Features

- Increased operating distance
- 6 mm non-flush
- Extended temperature range -40 ... +85 °C

## Accessories

### BF 6,5

Mounting flange, 6.5 mm

### V1-G

Female connector, M12, 4-pin, field attachable

### V1-W

Female connector, M12, 4-pin, field attachable

### V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

## 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 ... 4.86 mm                                                         |
| Actuating element            | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>18 mm x 18 mm x 1 mm |
| Reduction factor $r_{Al}$    | 0.55                                                                        |
| Reduction factor $r_{Cu}$    | 0.5                                                                         |
| Reduction factor $r_{304}$   | 0.75                                                                        |
| Reduction factor $r_{Brass}$ | 0.55                                                                        |
| Output type                  | 3-wire                                                                      |

### Nominal ratings

|                                |                            |
|--------------------------------|----------------------------|
| Operating voltage              | $U_B$ 5 ... 30 V           |
| Switching frequency            | $f$ 0 ... 1500 Hz          |
| Hysteresis                     | $H$ typ. 5%                |
| Reverse polarity protection    | reverse polarity protected |
| Short-circuit protection       | pulsing                    |
| Voltage drop                   | $U_d$ ≤ 1.5 V              |
| Operating current              | $I_L$ 0 ... 100 mA         |
| Off-state current              | $I_r$ 0 ... 0.2 mA         |
| No-load supply current         | $I_0$ ≤ 10 mA              |
| Time delay before availability | $t_v$ ≤ 100 ms             |
| Switching state indicator      | Multihole-LED, yellow      |

### Functional safety related parameters

|                                |       |
|--------------------------------|-------|
| MTTF <sub>d</sub>              | 960 a |
| Mission Time (T <sub>M</sub> ) | 20 a  |
| Diagnostic Coverage (DC)       | 0 %   |

### Ambient conditions

|                     |                                |
|---------------------|--------------------------------|
| Ambient temperature | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |

### Mechanical specifications

|                      |                               |
|----------------------|-------------------------------|
| Connection type      | Connector plug M12 x 1, 4-pin |
| Housing material     | brass, nickel-plated          |
| Sensing face         | LCP                           |
| Degree of protection | IP67                          |
| Mass                 | 10 g                          |

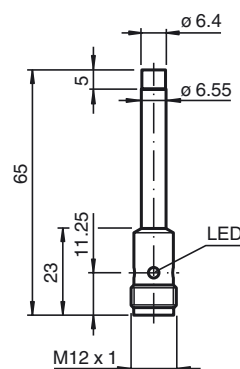
### Compliance with standards and directives

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| Standard conformity | 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 |
|---------------------|---------------------------------------------------------------------------------------------|

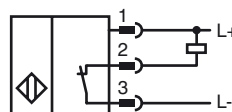
### Approvals and certificates

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

## Dimensions

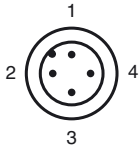


## Electrical Connection





Pinout



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |