



### Model Number

NEN20-18GM50-E2-V1

### Features

- Increased operating distance
- 20 mm non-flush

### Accessories

#### BF 18

Mounting flange, 18 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 element function | PNP   | NO            |
| Rated operating distance   | $s_n$ | 20 mm         |
| Installation               |       | non-flush     |
| Output polarity            |       | DC            |
| Assured operating distance | $s_a$ | 0 ... 16.2 mm |
| Reduction factor $r_{Al}$  |       | 0.36          |
| Reduction factor $r_{Cu}$  |       | 0.32          |
| Reduction factor $r_{304}$ |       | 0.69          |

### Nominal ratings

|                             |       |  |
|-----------------------------|-------|--|
| Installation conditions     |       |  |
| A                           |       | 20 mm                                  |
| B                           |       | 30 mm                                  |
| C                           |       | 60 mm                                  |
| F                           |       | 78 mm                                  |
| Operating voltage           | $U_B$ | 10 ... 30 V                            |
| Switching frequency         | $f$   | 0 ... 200 Hz                           |
| Hysteresis                  | H     | typ. 5%                                |
| Reverse polarity protection |       | reverse polarity protected             |
| Short-circuit protection    |       | pulsing                                |
| Voltage drop                | $U_d$ | $\leq 2$ V                             |
| Operating current           | $I_L$ | 0 ... 200 mA                           |
| Off-state current           | $I_r$ | 0 ... 0.1 mA typ. 0.1 $\mu$ A at 25 °C |
| No-load supply current      | $I_0$ | $\leq 10$ mA                           |
| Switching state indicator   |       | LED, yellow                            |

### Functional safety related parameters

|                          |       |
|--------------------------|-------|
| MTTF <sub>d</sub>        | 283 a |
| Mission Time ( $T_M$ )   | 20 a  |
| Diagnostic Coverage (DC) | 0 %   |

### Ambient conditions

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

### Mechanical specifications

|                      |                          |
|----------------------|--------------------------|
| Connection type      | Connector M12 x 1, 4-pin |
| Housing material     | chromium plated brass    |
| Sensing face         | PBT                      |
| Degree of protection | IP67                     |

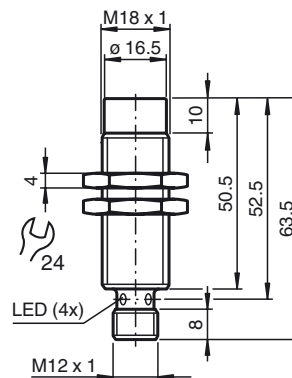
### Compliance with standards and directives

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

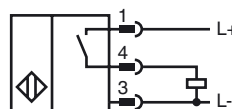
### Approvals and certificates

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

## Dimensions

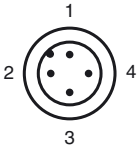


## Electrical Connection





Pinout



Wire colors in accordance with EN 60947-5-2

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

Installation Conditions

