



### Model Number

NEB12-18GM50-E2

### Features

- Increased operating distance
- 12 mm quasi flush

### Accessories

#### BF 18

Mounting flange, 18 mm

## Technical Data

### General specifications

|                              |       |   |
|------------------------------|-------|---|
| Switching element function   | PNP   | NO  |
| Rated operating distance     | $s_n$ | 12 mm   |
| Installation                 |       | quasi flush   |
| Output polarity              |       | DC  |
| Assured operating distance   | $s_a$ | 0 ... 9.72 mm   |
| Actuating element            |       | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>36 mm x 36 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.26  |
| Reduction factor $r_{Cu}$    |       | 0.2   |
| Reduction factor $r_{304}$   |       | 0.63  |
| Reduction factor $r_{Brass}$ |       | 0.33  |

### Nominal ratings

|                                  |       |                              |
|----------------------------------|-------|------------------------------|
| Installation conditions          |       |                              |
| A                                |       | in steel 1.0037 (St37): 4 mm |
| B                                |       | 14 mm                        |
| C                                |       | 36 mm                        |
| F                                |       | 36 mm                        |
| Operating voltage                | $U_B$ | 10 ... 30 V                  |
| Switching frequency              | f     | 0 ... 500 Hz                 |
| Hysteresis                       | H     | 0.12 ... 1.8 mm              |
| Reverse polarity protection      |       | yes                          |
| Short-circuit protection         |       | pulsing                      |
| Overload resistance              |       | yes                          |
| Wire breakage protection         |       | yes                          |
| Inductive overvoltage protection |       | yes                          |
| Surge suppression                |       | yes                          |
| Ripple                           |       | 10 %                         |
| Voltage drop                     | $U_d$ | $\leq 2$ V                   |
| Repeat accuracy                  | R     | 0.6 mm                       |
| Operating current                | $I_L$ | 0 ... 200 mA                 |
| Off-state current                | $I_r$ | $\leq 10$ $\mu$ A            |
| No-load supply current           | $I_0$ | $\leq 11$ mA                 |
| Time delay before availability   | $t_v$ | $\leq 50$ ms                 |
| Switching state indicator        |       | LED, yellow                  |

### Functional safety related parameters

|                                |        |
|--------------------------------|--------|
| MTTF <sub>d</sub>              | 2650 a |
| Mission Time (T <sub>M</sub> ) | 20 a   |
| Diagnostic Coverage (DC)       | 0 %    |

### Ambient conditions

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

### Mechanical specifications

|                      |                      |
|----------------------|----------------------|
| Connection type      | cable PUR, 2 m       |
| Core cross-section   | 0.34 mm <sup>2</sup> |
| Housing material     | brass, nickel-plated |
| Sensing face         | PBT                  |
| Degree of protection | IP67                 |
| Mass                 | 100 g                |

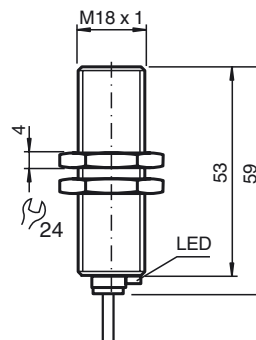
### Compliance with standards and directives

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

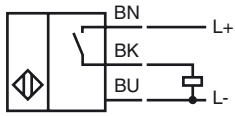
### Approvals and certificates

|                |  |
|----------------|--|
| EAC conformity | TR CU 020/2011   |
| UL approval    | cULus Listed, General Purpose                                      |
| CCC approval   | CCC approval / marking not required for products rated $\leq 36$ V |

## Dimensions



Electrical Connection



Installation Conditions

