



### Model Number

NMN20-18GH50-E2

### Features

- 20 mm non-flush
- Active surface metal
- One-piece housing with stainless steel (V4A; 1.4435)

### Accessories

#### BF 18

Mounting flange, 18 mm

## Technical Data

### General specifications

|                             |                                      |
|-----------------------------|--------------------------------------|
| Switching function          | Normally open (NO)                   |
| Output type                 | PNP                                  |
| Rated operating distance    | $s_n$ 20 mm                          |
| Installation                | non-flush                            |
| Output polarity             | DC                                   |
| Assured operating distance  | $s_a$ 0 ... 16.2 mm                  |
| Reduction factor $r_{AI}$   | 1                                    |
| Reduction factor $r_{CU}$   | 0.9                                  |
| Reduction factor $r_{304}$  | 0.3 (0.6 of material thickness 2 mm) |
| Reduction factor $r_{Si37}$ | 1                                    |
| Output type                 | 3-wire                               |

### Nominal ratings

|                                |                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------|
| Installation conditions        |                                                                                    |
| A                              | 34 mm (mild steel)<br>36 mm (stainless steel)<br>20 mm (aluminum)<br>22 mm (brass) |
| B                              | 41 mm                                                                              |
| C                              | 60 mm                                                                              |
| F                              | 200 mm                                                                             |
| Operating voltage              | $U_B$ 10 ... 30 V                                                                  |
| Switching frequency            | $f$ 0 ... 200 Hz                                                                   |
| Hysteresis                     | H 3 ... 15 typ. 5 %                                                                |
| Reverse polarity protection    | yes                                                                                |
| Short-circuit protection       | yes                                                                                |
| Voltage drop                   | $U_d$ $\leq 2$ V                                                                   |
| Operating current              | $I_L$ 0 ... 200 mA                                                                 |
| Off-state current              | $I_r$ $\leq 0.1$ mA                                                                |
| No-load supply current         | $I_0$ $\leq 10$ mA                                                                 |
| Time delay before availability | $t_v$ $\leq 40$ ms                                                                 |
| Switching state indicator      | LED, yellow                                                                        |

### Limit data

|                               |                         |
|-------------------------------|-------------------------|
| Operating pressure statically | 60 bar (870.2 psi) max. |
|-------------------------------|-------------------------|

### Functional safety related parameters

|                          |       |
|--------------------------|-------|
| MTTF <sub>d</sub>        | 655 a |
| Mission Time ( $T_M$ )   | 20 a  |
| Diagnostic Coverage (DC) | 0 %   |

### Ambient conditions

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

### Mechanical specifications

|                      |                                           |
|----------------------|-------------------------------------------|
| Connection type      | cable TPE-S, 2 m 3 x 0.34 mm <sup>2</sup> |
| Housing material     | Stainless steel 1.4435 / AISI 316L        |
| Sensing face         | Stainless steel 1.4435 / AISI 316L        |
| Degree of protection | IP68 / IP69K                              |
| Mass                 | 112 g                                     |

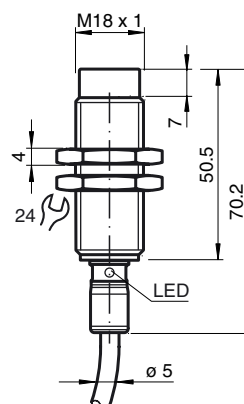
### Compliance with standards and directives

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

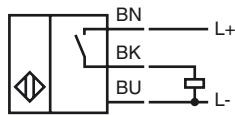
### Approvals and certificates

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

## Dimensions



## Electrical Connection



## Installation Conditions

