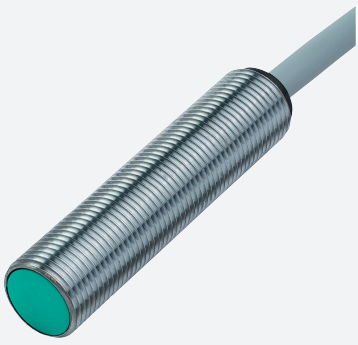


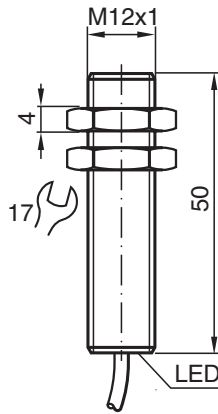
# Inductive sensor NEB6-12GM50-E1



- Increased operating distance
- 6 mm flush



## Dimensions



## Technical Data

| General specifications       |       |   |
|------------------------------|-------|---|
| Switching function           |       | Normally closed (NC)  |
| Output type                  |       | NPN   |
| Rated operating distance     | $s_n$ | 6 mm  |
| Installation                 |       | quasi flush   |
| Output polarity              |       | DC  |
| Assured operating distance   | $s_a$ | 0 ... 4.8 mm  |
| Actuating element            |       | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>18 mm x 18 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.28  |
| Reduction factor $r_{Cu}$    |       | 0.2   |
| Reduction factor $r_{304}$   |       | 0.7   |
| Reduction factor $r_{Brass}$ |       | 0.35  |
| Output type                  |       | 3-wire  |
| Nominal ratings              |       |   |
| Installation conditions      |       |   |
| A                            |       | in steel 1.0037 (St37): 2.4 mm<br>in other metal: 1.2 mm                    |

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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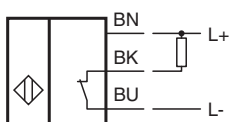
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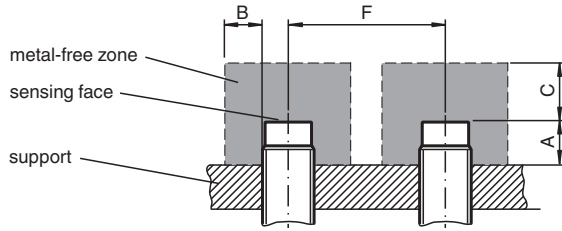
## Technical Data

|   |       |  |
|---|-------|--|
| B   |       | 12 mm  |
| C   |       | 18 mm  |
| F   |       | 24 mm  |
| Operating voltage                               | $U_B$ | 10 ... 30 V DC   |
| Switching frequency                             | f     | 0 ... 800 Hz   |
| Hysteresis                                      | H     | 0.06 ... 1.2 mm  |
| Reverse polarity protection                     |       | yes  |
| Short-circuit protection                        |       | pulsing  |
| Overload resistance                             |       | yes  |
| Wire breakage protection                        |       | yes  |
| Surge suppression                               |       | yes  |
| Ripple  |       | 10 %   |
| Voltage drop                                    | $U_d$ | $\leq 2$ V   |
| Repeat accuracy                                 | R     | 0.3 mm   |
| Operating current                               | $I_L$ | 0 ... 200 mA , above 70°C max. 150 mA                              |
| Off-state current                               | $I_r$ | $\leq 10$ $\mu$ A  |
| No-load supply current                          | $I_o$ | $\leq 15$ mA   |
| Time delay before availability                  | $t_v$ | $\leq 50$ ms   |
| Switching state indicator                       |       | LED, yellow  |
| <b>Functional safety related parameters</b>     |       |  |
| MTTF <sub>d</sub>                               |       | 1740 a   |
| Mission Time (T <sub>M</sub> )                  |       | 20 a   |
| Diagnostic Coverage (DC)                        |       | 0 %  |
| <b>Compliance with standards and directives</b> |       |  |
| Standard conformity                             |       |  |
| Standards                                       |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                            |
| <b>Approvals and certificates</b>               |       |  |
| UL approval                                     |       | cULus Listed, General Purpose                                      |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36$ V |
| <b>Ambient conditions</b>                       |       |  |
| Ambient temperature                             |       | -25 ... 85 °C (-13 ... 185 °F)                                     |
| Storage temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                     |
| <b>Mechanical specifications</b>                |       |  |
| 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  |       | 80 g   |

## Connection



**Installation**



**Accessories**

|  |                     |                               |
|--|---------------------|-------------------------------|
|  | <p><b>BF 12</b></p> | <p>Mounting flange, 12 mm</p> |
|--|---------------------|-------------------------------|

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