

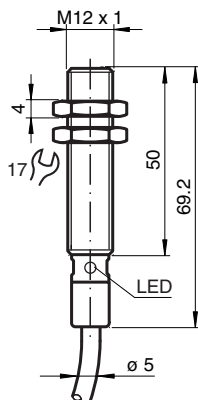
# Inductive sensor NMB6-12GH50-E2



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



## Dimensions



## Technical Data

### General specifications

|                             |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Switching function          |       | Normally open (NO)                   |
| Output type                 |       | PNP                                  |
| Rated operating distance    | $s_n$ | 6 mm                                 |
| Installation                |       | flush in mild steel                  |
| Output polarity             |       | DC                                   |
| Assured operating distance  | $s_a$ | 0 ... 4.86 mm                        |
| Reduction factor $r_{Al}$   |       | 1                                    |
| Reduction factor $r_{Cu}$   |       | 0.85                                 |
| Reduction factor $r_{304}$  |       | 0.5 (0.9 of material thickness 2 mm) |
| Reduction factor $r_{S137}$ |       | 1                                    |
| Output type                 |       | 3-wire                               |

### Nominal ratings

Release date: 2020-03-24 Date of issue: 2020-03-30 Filename: 288263\_eng.pdf

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

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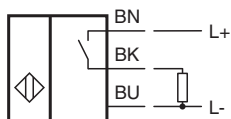
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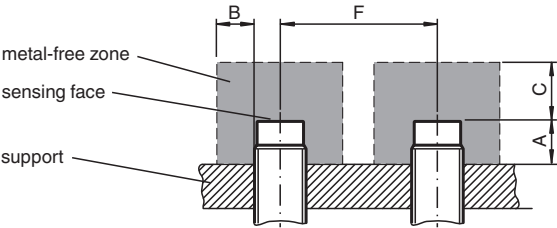
## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| <b>Installation conditions</b>                  |       |                                                                                             |
| A                                               |       | 0 mm                                                                                        |
| B                                               |       | 6 mm                                                                                        |
| C                                               |       | 18 mm                                                                                       |
| F                                               |       | 50 mm                                                                                       |
| Operating voltage                               | $U_B$ | 10 ... 30 V                                                                                 |
| Switching frequency                             | $f$   | 0 ... 600 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                                                                                 |
| <b>Limit data</b>                               |       |                                                                                             |
| Operating pressure statically                   |       | 80 bar (1160.3 psi) max.                                                                    |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 652 a                                                                                       |
| Mission Time ( $T_M$ )                          |       | 20 a                                                                                        |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                                         |
| <b>Compliance with standards and directives</b> |       |                                                                                             |
| 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 |
| <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)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cable TPE-S , 2 m                                                                           |
| Housing material                                |       | Stainless steel 1.4435 / AISI 316L                                                          |
| Sensing face                                    |       | Stainless steel 1.4435 / AISI 316L                                                          |
| Degree of protection                            |       | IP68 / IP69K                                                                                |
| Mass                                            |       | 112 g                                                                                       |

## Connection



Installation



Accessories

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