

# Inductive sensor

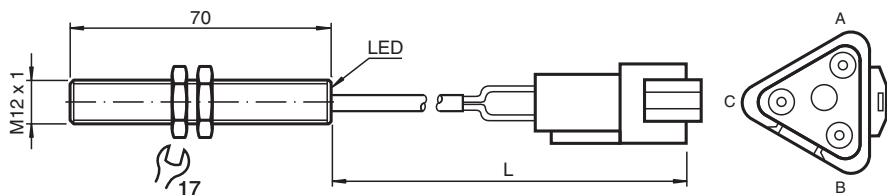
## NBB4-12GM70-E2-Y285691



- 4 mm flush
- Extended temperature range
- Raised EMC resistance 30 V/m
- Switching output with integrated load resistance
- Datasheet values are changed only in consultation with the company Crown



### Dimensions



### Technical Data

| General specifications            |                |                            |
|-----------------------------------|----------------|----------------------------|
| Switching function                |                | Normally open (NO)         |
| Output type                       |                | PNP                        |
| Rated operating distance          | s <sub>n</sub> | 4 mm                       |
| Installation                      |                | flush                      |
| Output polarity                   |                | DC                         |
| Assured operating distance        | s <sub>a</sub> | 0 ... 3.24 mm              |
| Reduction factor r <sub>Al</sub>  |                | 0.45                       |
| Reduction factor r <sub>Cu</sub>  |                | 0.35                       |
| Reduction factor r <sub>304</sub> |                | 0.75                       |
| Output type                       |                | 3-wire                     |
| Nominal ratings                   |                |                            |
| Operating voltage                 | U <sub>B</sub> | 5 ... 60 V                 |
| Switching frequency               | f              | 0 ... 2500 Hz              |
| Hysteresis                        | H              | typ. 5 %                   |
| Reverse polarity protection       |                | reverse polarity protected |

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

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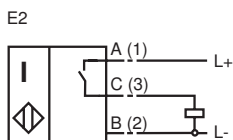
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 PEPPERL+FUCHS

## Technical Data

|                                                 |       |                                                                                                               |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------|
| Short-circuit protection                        |       | pulsing                                                                                                       |
| Voltage drop                                    | $U_d$ | $\leq 2 \text{ V}$                                                                                            |
| Operating current                               | $I_L$ | 0 ... 150 mA                                                                                                  |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ. 0.1 $\mu\text{A}$                                                                           |
| No-load supply current                          | $I_0$ | $\leq 7 \text{ mA}$                                                                                           |
| Time delay before availability                  | $t_v$ | $\leq 200 \text{ ms}$                                                                                         |
| Switching state indicator                       |       | LED, yellow                                                                                                   |
| <b>Functional safety related parameters</b>     |       |                                                                                                               |
| MTTF <sub>d</sub>                               |       | 1183 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>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012<br>EN 12895: 2015 |
| <b>Approvals and certificates</b>               |       |                                                                                                               |
| UL approval                                     |       | cULus Listed, General Purpose<br>Class 2 power source                                                         |
| CSA approval                                    |       | cCSAus Listed, General Purpose<br>Class 2 power source                                                        |
| CCC approval                                    |       | Certified by China Compulsory Certification (CCC)                                                             |
| <b>Ambient conditions</b>                       |       |                                                                                                               |
| Ambient temperature                             |       | -40 ... 100 °C (-40 ... 212 °F)                                                                               |
| <b>Mechanical specifications</b>                |       |                                                                                                               |
| Connection type                                 |       | Cable connector , Deutsch with PUR cable , 740 mm                                                             |
| Connection assembly                             |       | Deutsch housing DT04-3P-C015<br>Deutsch wedge W3P<br>Deutsch contact 1060-16-0622                             |
| Core cross-section                              |       | 3 x 0.75 mm <sup>2</sup>                                                                                      |
| Housing material                                |       | brass, nickel-plated                                                                                          |
| Sensing face                                    |       | PBT                                                                                                           |
| Degree of protection                            |       | IP69K, not connector!                                                                                         |
| Mass                                            |       | 72 g                                                                                                          |

## Connection



## Accessories

|  |               |                                       |
|--|---------------|---------------------------------------|
|  | <b>EXG-12</b> | Quick mounting bracket with dead stop |
|--|---------------|---------------------------------------|