

# Inductive sensor

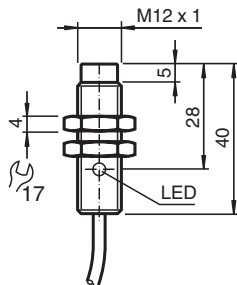
## NJ4-12GM40-E3-5M



■ 4 mm non-flush



### Dimensions



### Technical Data

| General specifications      |       |                            |
|-----------------------------|-------|----------------------------|
| Switching function          |       | Normally closed (NC)       |
| Output type                 |       | PNP                        |
| Rated operating distance    | $s_n$ | 4 mm                       |
| Installation                |       | non-flush                  |
| Output polarity             |       | DC                         |
| Assured operating distance  | $s_a$ | 0 ... 3.24 mm              |
| Actual operating distance   | $s_r$ | 3.6 ... 4.4 mm typ.        |
| Reduction factor $r_{Al}$   |       | 0.37                       |
| Reduction factor $r_{Cu}$   |       | 0.36                       |
| Reduction factor $r_{304}$  |       | 0.74                       |
| Nominal ratings             |       |                            |
| Operating voltage           | $U_B$ | 10 ... 60 V                |
| Switching frequency         | $f$   | 0 ... 2000 Hz              |
| Hysteresis                  | $H$   | 1 ... 10 typ. 3 %          |
| Reverse polarity protection |       | reverse polarity protected |

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

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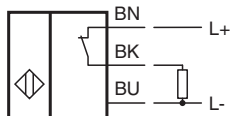
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**PEPPERL+FUCHS**

## Technical Data

|                                                            |       |                                                   |
|------------------------------------------------------------|-------|---------------------------------------------------|
| Short-circuit protection                                   |       | pulsing                                           |
| Voltage drop                                               | $U_d$ | $\leq 3 \text{ V}$                                |
| Voltage drop at $I_L$                                      |       |                                                   |
| Voltage drop $I_L = 100 \text{ mA}$ , switching element on | $U_d$ | 1.2 ... 2.5 V                                     |
| Operating current                                          | $I_L$ | 0 ... 200 mA                                      |
| No-load supply current                                     | $I_0$ | $\leq 9 \text{ mA}$                               |
| Time delay before availability                             | $t_v$ | $\leq 20 \text{ ms}$                              |
| Switching state indicator                                  |       | LED, yellow                                       |
| <b>Functional safety related parameters</b>                |       |                                                   |
| MTTF <sub>d</sub>                                          |       | 750 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>IEC 60947-5-2:2007           |
| <b>Approvals and certificates</b>                          |       |                                                   |
| UL approval                                                |       | cULus Listed, General Purpose                     |
| CSA approval                                               |       | cCSAus Listed, General Purpose                    |
| CCC approval                                               |       | Certified by China Compulsory Certification (CCC) |
| <b>Ambient conditions</b>                                  |       |                                                   |
| Ambient temperature                                        |       | -25 ... 70 °C (-13 ... 158 °F)                    |
| Storage temperature                                        |       | -40 ... 85 °C (-40 ... 185 °F)                    |
| <b>Mechanical specifications</b>                           |       |                                                   |
| Connection type                                            |       | cablE PUR , 5 m                                   |
| Core cross-section                                         |       | 0.34 mm <sup>2</sup>                              |
| Housing material                                           |       | Stainless steel 1.4305 / AISI 303                 |
| Sensing face                                               |       | PBT                                               |
| Degree of protection                                       |       | IP67                                              |
| <b>General information</b>                                 |       |                                                   |
| Scope of delivery                                          |       | 2 self locking nuts in scope of delivery          |

## Connection Assignment



## Accessories

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