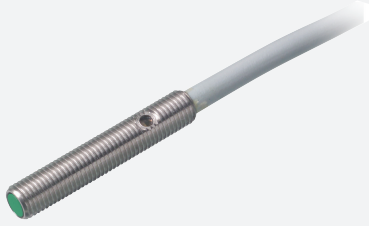


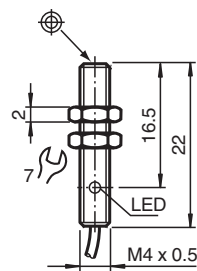
# Inductive sensor NBB1-4GM22-E2-5M



- 1 mm flush
- Miniature design



## Dimensions



## Technical Data

### General specifications

|                              |       |                    |
|------------------------------|-------|--------------------|
| Switching function           |       | Normally open (NO) |
| Output type                  |       | PNP                |
| Rated operating distance     | $s_n$ | 1 mm               |
| Installation                 |       | flush              |
| Output polarity              |       | DC                 |
| Assured operating distance   | $s_a$ | 0 ... 0.81 mm      |
| Reduction factor $r_{Al}$    |       | 0.4                |
| Reduction factor $r_{Cu}$    |       | 0.29               |
| Reduction factor $r_{304}$   |       | 0.76               |
| Reduction factor $r_{Brass}$ |       | 0.46               |
| Output type                  |       | 3-wire             |

### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V                |
| Switching frequency         | $f$   | 0 ... 700 Hz               |
| Hysteresis                  | $H$   | typ. 5%                    |
| Reverse polarity protection |       | reverse polarity protected |

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

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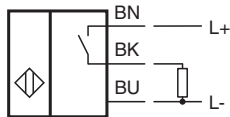
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**PEPPERL+FUCHS**

Technical Data

|                                          |       |                                                                           |
|------------------------------------------|-------|---------------------------------------------------------------------------|
| Short-circuit protection                 |       | pulsing                                                                   |
| Voltage drop                             | $U_d$ | $\leq 3\text{ V}$                                                         |
| Operating current                        | $I_L$ | 0 ... 100 mA                                                              |
| Off-state current                        | $I_r$ | 0 ... 0.1 mA typ. at 25 °C                                                |
| No-load supply current                   | $I_0$ | $\leq 10\text{ mA}$                                                       |
| Switching state indicator                |       | LED, yellow                                                               |
| Functional safety related parameters     |       |                                                                           |
| MTTF <sub>d</sub>                        |       | 1340 a                                                                    |
| Mission Time (T <sub>M</sub> )           |       | 20 a                                                                      |
| Diagnostic Coverage (DC)                 |       | 0 %                                                                       |
| Compliance with standards and directives |       |                                                                           |
| Standard conformity                      |       |                                                                           |
| Standards                                |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                   |
| Approvals and certificates               |       |                                                                           |
| UL approval                              |       | UL Recognized                                                             |
| CCC approval                             |       | CCC approval / marking not required for products rated $\leq 36\text{ V}$ |
| Ambient conditions                       |       |                                                                           |
| Ambient temperature                      |       | -25 ... 70 °C (-13 ... 158 °F)                                            |
| Mechanical specifications                |       |                                                                           |
| Connection type                          |       | cablE PUR , 5 m                                                           |
| Core cross section                       |       | 0.055 mm <sup>2</sup>                                                     |
| Housing material                         |       | Stainless steel 1.4305 / AISI 303                                         |
| Sensing face                             |       | PC                                                                        |
| Degree of protection                     |       | IP67                                                                      |

Connection



Accessories

|  |             |                       |
|--|-------------|-----------------------|
|  | <b>BF 4</b> | Mounting flange, 4 mm |
|--|-------------|-----------------------|

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