

# Inductive sensor

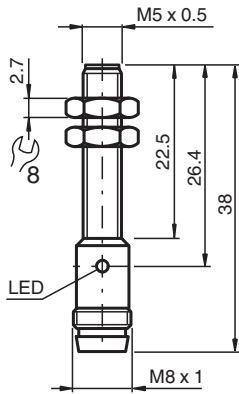
## NBB1,5-5GM25-E2-V3



- Basic series
- 1.5 mm flush



### Dimensions



### Technical Data

#### General specifications

|                              |       |                    |
|------------------------------|-------|--------------------|
| Switching function           |       | Normally open (NO) |
| Output type                  |       | PNP                |
| Rated operating distance     | $s_n$ | 1.5 mm             |
| Installation                 |       | flush              |
| Output polarity              |       | DC                 |
| Assured operating distance   | $s_a$ | 0 ... 1.215 mm     |
| Actuating element            |       | 5 mm x 5 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.41               |
| Reduction factor $r_{Cu}$    |       | 0.38               |
| Reduction factor $r_{304}$   |       | 0.85               |
| Reduction factor $r_{Brass}$ |       | 0.54               |
| Output type                  |       | 3-wire             |

#### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V                |
| Switching frequency         | $f$   | 0 ... 3000 Hz              |
| Hysteresis                  | $H$   | 1 ... 15 %                 |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |

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

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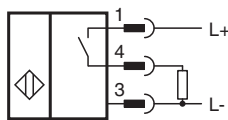
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**PEPPERL+FUCHS**

Technical Data

|                                          |                                                              |                                   |
|------------------------------------------|--------------------------------------------------------------|-----------------------------------|
| Voltage drop                             | U <sub>d</sub>                                               | ≤ 3 V                             |
| Operating current                        | I <sub>L</sub>                                               | 0 ... 200 mA                      |
| Off-state current                        | I <sub>r</sub>                                               | 0 ... 0.1 mA typ. 0.1 μA at 25 °C |
| No-load supply current                   | I <sub>0</sub>                                               | ≤ 10 mA                           |
| Switching state indicator                | LED, yellow                                                  |                                   |
| Functional safety related parameters     |                                                              |                                   |
| MTTF <sub>d</sub>                        | 1245 a                                                       |                                   |
| Mission Time (T <sub>M</sub> )           |                                                              | 20 a                              |
| Diagnostic Coverage (DC)                 | 0 %                                                          |                                   |
| Compliance with standards and directives |                                                              |                                   |
| Standard conformity                      |                                                              |                                   |
| Standards                                |                                                              | EN IEC 60947-5-2                  |
| Approvals and certificates               |                                                              |                                   |
| UL approval                              |                                                              | cULus Listed, General Purpose     |
| CCC approval                             | CCC approval / marking not required for products rated ≤36 V |                                   |
| Ambient conditions                       |                                                              |                                   |
| Ambient temperature                      | -25 ... 70 °C (-13 ... 158 °F)                               |                                   |
| Mechanical specifications                |                                                              |                                   |
| Connection type                          | Connector plug                                               |                                   |
| Housing material                         |                                                              | Stainless steel 1.4305 / AISI 303 |
| Sensing face                             | POM                                                          |                                   |
| Degree of protection                     |                                                              | IP67                              |
| Connector                                |                                                              |                                   |
| Threading                                |                                                              | M8 x 1                            |
| Number of pins                           | 3                                                            |                                   |
| Dimensions                               |                                                              |                                   |
| Length                                   | 38 mm                                                        |                                   |
| Diameter                                 | 5 mm                                                         |                                   |

Connection



Connection Assignment



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Connection Assignment

Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

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