

# Inductive sensor

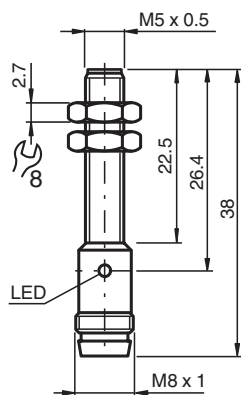
## NBB1,5-5GM25-E3-V3



- Basic series
- 1.5 mm flush



### Dimensions



### Technical Data

| General specifications       |       |                      |
|------------------------------|-------|----------------------|
| Switching function           |       | Normally closed (NC) |
| 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        |

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

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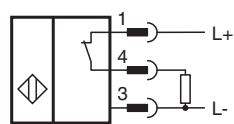
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**PEPPERL+FUCHS**

Technical Data

|                                                 |                |                                                                                             |
|-------------------------------------------------|----------------|---------------------------------------------------------------------------------------------|
| Hysteresis                                      | H              | 1 ... 15 %                                                                                  |
| Reverse polarity protection                     |                | reverse polarity protected                                                                  |
| Short-circuit protection                        |                | pulsing                                                                                     |
| 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                                                                                 |
| <b>Functional safety related parameters</b>     |                |                                                                                             |
| MTTF <sub>d</sub>                               |                | 1149 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 |
| <b>Approvals and certificates</b>               |                |                                                                                             |
| UL approval                                     |                | cULus Listed, General Purpose                                                               |
| CSA approval                                    |                | cCSAus Listed, General Purpose                                                              |
| CCC approval                                    |                | CCC approval / marking not required for products rated ≤36 V                                |
| <b>Ambient conditions</b>                       |                |                                                                                             |
| Ambient temperature                             |                | -25 ... 70 °C (-13 ... 158 °F)                                                              |
| <b>Mechanical specifications</b>                |                |                                                                                             |
| Connection type                                 |                | Connector M8 x 1 , 3-pin                                                                    |
| Housing material                                |                | Stainless steel 1.4305 / AISI 303                                                           |
| Sensing face                                    |                | POM                                                                                         |
| Degree of protection                            |                | IP67                                                                                        |

Connection



Connection Assignment



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Wire colors in accordance with EN 60947-5-2

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

Accessories

|                                                                                   |                     |                                                   |
|-----------------------------------------------------------------------------------|---------------------|---------------------------------------------------|
|  | <b>BF 5</b>         | Mounting flange, 5 mm                             |
|  | <b>V3-WM-2M-PUR</b> | Female cordset single-ended, M8, 3-pin, PUR cable |

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