

# Inductive sensor

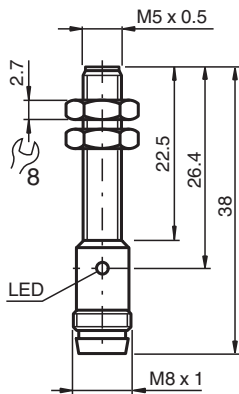
## NBB1,5-5GM25-E3-V3



- 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              |
| Hysteresis                   | $H$   | 1 ... 15 %                 |
| Reverse polarity protection  |       | reverse polarity protected |
| Short-circuit protection     |       | pulsing                    |

Release date: 2024-04-25 Date of issue: 2024-04-25 Filename: 204746\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

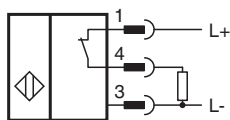
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PEPPERL+FUCHS**

Technical Data

|                                          |       |                                                                           |
|------------------------------------------|-------|---------------------------------------------------------------------------|
| Voltage drop                             | $U_d$ | $\leq 3\text{ V}$                                                         |
| Operating current                        | $I_L$ | 0 ... 200 mA                                                              |
| Off-state current                        | $I_r$ | 0 ... 0.1 mA typ. 0.1 $\mu\text{A}$ 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>                        |       | 1149 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 $\leq 36\text{ V}$ |
| Ambient conditions                       |       |                                                                           |
| Ambient temperature                      |       | -25 ... 70 °C (-13 ... 158 °F)                                            |
| Storage temperature                      |       | -40 ... 85 °C (-40 ... 185 °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



Release date: 2024-04-25 Date of issue: 2024-04-25 Filename: 204746\_eng.pdf

Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

Release date: 2024-04-25 Date of issue: 2024-04-25 Filename: 204746\_eng.pdf