

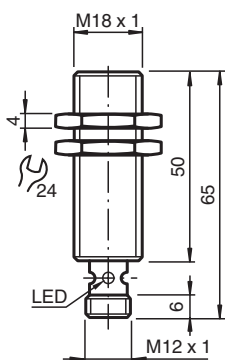


# Inductive sensor NBB5-18GM50-E2-C-V1

- 5 mm flush
- Weld Immune



## Dimensions



## Technical Data

### General specifications

|                            |       |                    |
|----------------------------|-------|--------------------|
| Switching function         |       | Normally open (NO) |
| Output type                |       | PNP                |
| Rated operating distance   | $s_n$ | 5 mm               |
| Installation               |       | flush              |
| Output polarity            |       | DC                 |
| Assured operating distance | $s_a$ | 0 ... 4.05 mm      |
| Reduction factor $r_{AI}$  |       | 0.3                |
| Reduction factor $r_{Cu}$  |       | 0.2                |
| Reduction factor $r_{304}$ |       | 0.6                |
| Output type                |       | 3-wire             |

### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 30 V DC             |
| Switching frequency         | $f$   | 0 ... 800 Hz               |
| Hysteresis                  | $H$   | typ. 5 %                   |
| 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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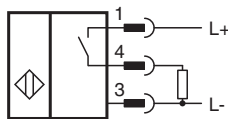
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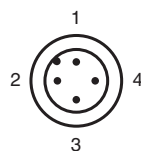
Technical Data

|                                          |                       |                                                              |
|------------------------------------------|-----------------------|--------------------------------------------------------------|
| 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 ... 0.5 mA typ. 0.1 μA at 25 °C                            |
| No-load supply current                   | I <sub>0</sub>        | ≤ 15 mA                                                      |
| Constant magnetic field                  | B                     | 150 mT                                                       |
| Alternating magnetic field               | B                     | 150 mT                                                       |
| Switching state indicator                | Multihole-LED, yellow |                                                              |
| Functional safety related parameters     |                       |                                                              |
| MTTF <sub>d</sub>                        |                       | 1740 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 M12 x 1 , 4-pin                               |
| Housing material                         |                       | Brass, PTFE coated                                           |
| Sensing face                             |                       | PPS                                                          |
| Degree of protection                     |                       | IP67                                                         |
| Dimensions                               |                       |                                                              |
| Length                                   |                       | 50 mm                                                        |
| Diameter                                 |                       | 18 mm                                                        |

Connection



Connection Assignment



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Connection Assignment

Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

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