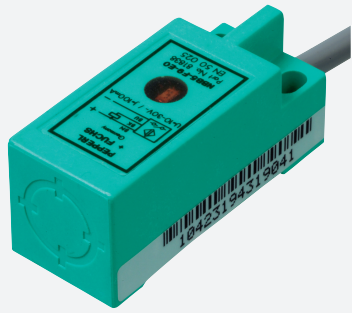


# Inductive sensor

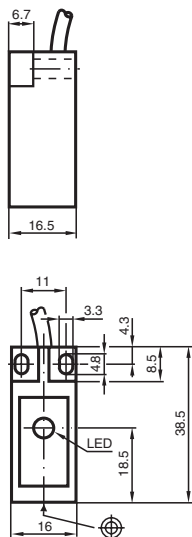
## NBB5-F9-E2



- 5 mm flush
- 3-wire DC



### 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 $r_{Al}$  |       | 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 ... 500 Hz   |

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

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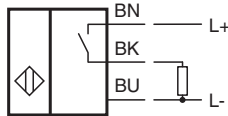
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**PEPPERL+FUCHS**

# Technical Data

|                                                 |                |                                                              |
|-------------------------------------------------|----------------|--------------------------------------------------------------|
| Hysteresis                                      | H              | typ. 5 %                                                     |
| 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 ... 150 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                                                      |
| Switching state indicator                       |                | LED, yellow                                                  |
| <b>Compliance with standards and directives</b> |                |                                                              |
| Standard conformity                             |                |                                                              |
| Standards                                       |                | EN IEC 60947-5-2                                             |
| <b>Approvals and certificates</b>               |                |                                                              |
| UL approval                                     |                | cULus 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                                 |                | cable                                                        |
| Housing material                                |                | PBT                                                          |
| Sensing face                                    |                | PBT                                                          |
| Degree of protection                            |                | IP67                                                         |
| Cable                                           |                |                                                              |
| Wire end ferrules                               |                | yes                                                          |
| Cable diameter                                  |                | 3.5 mm ± 0.2 mm                                              |
| Bending radius                                  |                | > 10 x cable diameter                                        |
| Material                                        |                | PVC                                                          |
| Color                                           |                | grey                                                         |
| Number of cores                                 |                | 3                                                            |
| Core cross section                              |                | 0.14 mm <sup>2</sup>                                         |
| Length                                          | L              | 2 m                                                          |
| Dimensions                                      |                |                                                              |
| Height                                          |                | 16.5 mm                                                      |
| Width                                           |                | 16 mm                                                        |
| Length                                          |                | 38.5 mm                                                      |

# Connection



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