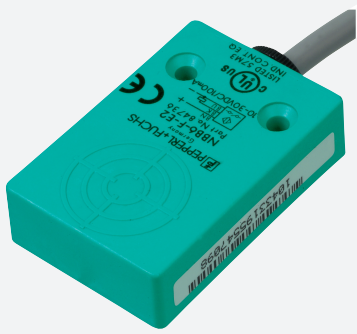


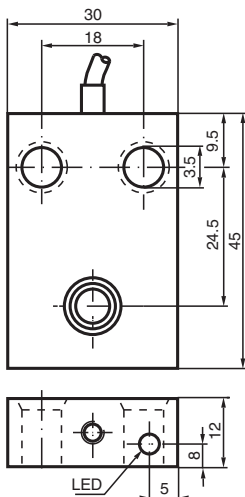


## Inductive sensor NJ10-F-E2

- Comfort series
- 10 mm non-flush
- 3-wire DC



### Dimensions



### Technical Data

#### General specifications

|                            |       |                     |
|----------------------------|-------|---------------------|
| Switching function         |       | Normally open (NO)  |
| Output type                |       | PNP                 |
| Rated operating distance   | $s_n$ | 10 mm               |
| Installation               |       | non-flush           |
| Output polarity            |       | DC                  |
| Assured operating distance | $s_a$ | 0 ... 8.1 mm        |
| Actual operating distance  | $s_r$ | 5.4 ... 6.6 mm typ. |
| Reduction factor $r_{AI}$  |       | 0.22                |
| Reduction factor $r_{Cu}$  |       | 0.2                 |
| Reduction factor $r_{304}$ |       | 0.7                 |
| Output type                |       | 3-wire              |

#### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 60 V DC             |
| Switching frequency         | $f$   | 0 ... 250 Hz               |
| Hysteresis                  | $H$   | 0 ... 0.3 % typ. 0.1 %     |
| Reverse polarity protection |       | reverse polarity protected |

Release date: 2024-12-10 Date of issue: 2024-12-10 Filename: 024683\_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

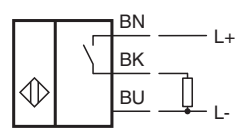
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PEPPERL+FUCHS**

Technical Data

|                                                 |       |                                                   |
|-------------------------------------------------|-------|---------------------------------------------------|
| Short-circuit protection                        |       | pulsing                                           |
| Voltage drop                                    | $U_d$ | $\leq 3\text{ V}$                                 |
| Operating current                               | $I_L$ | 0 ... 200 mA                                      |
| Off-state current                               | $I_r$ | $\leq 0.5\text{ mA}$                              |
| No-load supply current                          | $I_0$ | $\leq 20\text{ mA}$                               |
| Time delay before availability                  | $t_v$ | $\leq 15\text{ ms}$                               |
| Switching state indicator                       |       | LED, yellow                                       |
| <b>Functional safety related parameters</b>     |       |                                                   |
| MTTF <sub>d</sub>                               |       | 990 a                                             |
| Mission Time (T <sub>M</sub> )                  |       | 20 a                                              |
| Diagnostic Coverage (DC)                        |       | 0 %                                               |
| <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                                    |       | Certified by China Compulsory Certification (CCC) |
| <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                                              |
| <b>Cable</b>                                    |       |                                                   |
| Wire end ferrules                               |       | yes                                               |
| Cable diameter                                  |       | 4.8 mm ± 0.2 mm                                   |
| Bending radius                                  |       | > 10 x cable diameter                             |
| Material                                        |       | PUR                                               |
| Color                                           |       | black                                             |
| Number of cores                                 |       | 3                                                 |
| Core cross section                              |       | 0.34 mm <sup>2</sup>                              |
| Length                                          | L     | 2 m                                               |
| Mass                                            |       | 91 g                                              |
| <b>Dimensions</b>                               |       |                                                   |
| Height                                          |       | 12 mm                                             |
| Width                                           |       | 30 mm                                             |
| Length                                          |       | 45 mm                                             |

Connection



Release date: 2024-12-10 Date of issue: 2024-12-10 Filename: 024683\_eng.pdf