

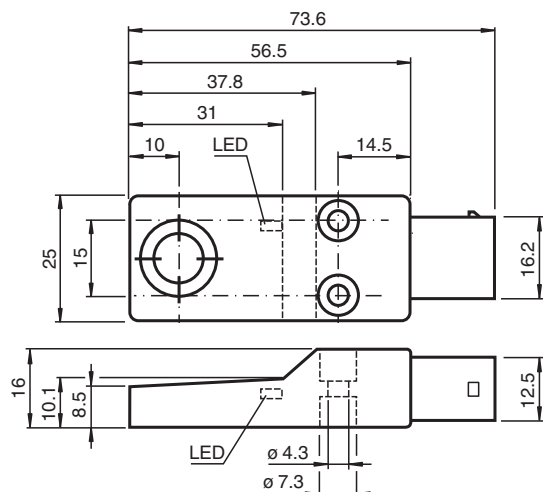


## Inductive sensor NBB5-F33X-E2-AMP

- 5 mm flush
- 3-wire DC
- Amp connector



### 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 $r_{Al}$    |       | 0.25               |
| Reduction factor $r_{Cu}$    |       | 0.2                |
| Reduction factor $r_{304}$   |       | 0.6                |
| Reduction factor $r_{Brass}$ |       | 0.35               |
| Output type                  |       | 3-wire             |

#### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 10 ... 60 V DC             |
| Switching frequency         | $f$   | 0 ... 500 Hz               |
| Hysteresis                  | $H$   | typ. 5 %                   |
| Reverse polarity protection |       | reverse polarity protected |

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

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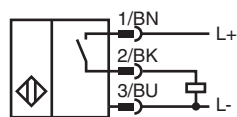
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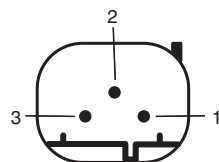
Technical Data

|                                                 |                                                                                                                |                                |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------|
| Short-circuit protection                        |                                                                                                                | pulsing                        |
| Voltage drop                                    | $U_d$                                                                                                          | $\leq 2.5\text{ V}$            |
| Operating current                               | $I_L$                                                                                                          | 0 ... 200 mA                   |
| Off-state current                               | $I_r$                                                                                                          | 0 ... 0.1 mA                   |
| No-load supply current                          | $I_0$                                                                                                          | $\leq 10\text{ mA}$            |
| Time delay before availability                  | $t_v$                                                                                                          | $\leq 50\text{ ms}$            |
| Switching state indicator                       |                                                                                                                | LED yellow                     |
| <b>Functional safety related parameters</b>     |                                                                                                                |                                |
| MTTF <sub>d</sub>                               |                                                                                                                | 1891 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>Ambient conditions</b>                       |                                                                                                                |                                |
| Ambient temperature                             |                                                                                                                | -35 ... 70 °C (-31 ... 158 °F) |
| Storage temperature                             |                                                                                                                | -40 ... 85 °C (-40 ... 185 °F) |
| <b>Mechanical specifications</b>                |                                                                                                                |                                |
| Connection type                                 | Connector plug , AMP connector<br>Tyco socket housing 1-0967642-1 (A coding)<br>Tyco crimp contacts 0-963726-1 |                                |
| Housing material                                |                                                                                                                | PBT , black                    |
| Degree of protection                            |                                                                                                                | IP67                           |
| Dimensions                                      |                                                                                                                |                                |
| Height                                          |                                                                                                                | 10 mm                          |
| Width                                           |                                                                                                                | 25 mm                          |
| Length                                          |                                                                                                                | 73 mm                          |
| Note                                            |                                                                                                                | Tightening torque: 5 Nm        |

Connection



Connection Assignment



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