

# Inductive sensor

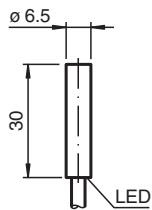
## NBB2-6,5M30-E0



- 2 mm flush
- Increased operating distance
- Extended temperature range  
-40 ... +85 °C



### Dimensions



### Technical Data

| General specifications              |                |                                                                               |
|-------------------------------------|----------------|-------------------------------------------------------------------------------|
| Switching function                  |                | Normally open (NO)                                                            |
| Output type                         |                | NPN                                                                           |
| Rated operating distance            | s <sub>n</sub> | 2 mm                                                                          |
| Installation                        |                | flush                                                                         |
| Output polarity                     |                | DC                                                                            |
| Assured operating distance          | s <sub>a</sub> | 0 ... 1.62 mm                                                                 |
| Actuating element                   |                | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>6.5 mm x 6.5 mm x 1 mm |
| Reduction factor r <sub>Al</sub>    |                | 0.4                                                                           |
| Reduction factor r <sub>Cu</sub>    |                | 0.3                                                                           |
| Reduction factor r <sub>304</sub>   |                | 0.7                                                                           |
| Reduction factor r <sub>Brass</sub> |                | 0.45                                                                          |
| Output type                         |                | 3-wire                                                                        |
| Nominal ratings                     |                |                                                                               |
| Operating voltage                   | U <sub>B</sub> | 5 ... 30 V                                                                    |
| Switching frequency                 | f              | 0 ... 6000 Hz                                                                 |
| Hysteresis                          | H              | typ. 5%                                                                       |
| Reverse polarity protection         |                | reverse polarity protected                                                    |
| Short-circuit protection            |                | pulsing                                                                       |
| Voltage drop                        | U <sub>d</sub> | ≤ 1.5 V                                                                       |
| Operating current                   | I <sub>L</sub> | 0 ... 100 mA                                                                  |
| Off-state current                   | I <sub>r</sub> | 0 ... 0.2 mA                                                                  |
| No-load supply current              | I <sub>0</sub> | ≤ 10 mA                                                                       |
| Time delay before availability      | t <sub>v</sub> | ≤ 100 ms                                                                      |

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

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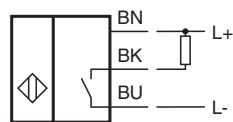
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 **PEPPERL+FUCHS**

Technical Data

|                                                 |                                                              |
|-------------------------------------------------|--------------------------------------------------------------|
| Switching state indicator                       | LED, yellow                                                  |
| <b>Functional safety related parameters</b>     |                                                              |
| MTTF <sub>d</sub>                               | 960 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                                    | CCC approval / marking not required for products rated ≤36 V |
| <b>Ambient conditions</b>                       |                                                              |
| Ambient temperature                             | -40 ... 85 °C (-40 ... 185 °F)                               |
| Storage temperature                             | -40 ... 85 °C (-40 ... 185 °F)                               |
| <b>Mechanical specifications</b>                |                                                              |
| Connection type                                 | cablc PVC , 2 m                                              |
| Core cross section                              | 0.14 mm <sup>2</sup>                                         |
| Housing material                                | brass, nickel-plated                                         |
| Sensing face                                    | LCP                                                          |
| Degree of protection                            | IP65 / IP66 / IP67                                           |
| Cable                                           |                                                              |
| Cable diameter                                  | 3.5 mm ± 0.1 mm                                              |
| Bending radius                                  | > 10 x cable diameter                                        |
| Dimensions                                      |                                                              |
| Length                                          | 30 mm                                                        |
| Diameter                                        | 6.5 mm                                                       |

Connection



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