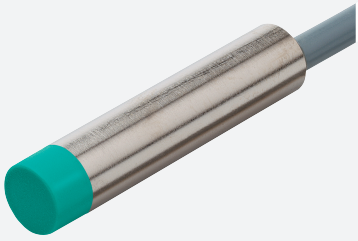


# Inductive sensor

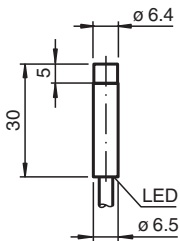
NBN3-6,5M30-E0-0,3M-V3



- 3 mm non-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     | $s_n$ | 3 mm                                                                      |
| Installation                 |       | non-flush                                                                 |
| Output polarity              |       | DC                                                                        |
| Assured operating distance   | $s_a$ | 0 ... 2.43 mm                                                             |
| Actuating element            |       | mild steel, e. g. 1.0037, SR235JR (formerly St37-2)<br>9 mm x 9 mm x 1 mm |
| Reduction factor $r_{Al}$    |       | 0.55                                                                      |
| Reduction factor $r_{Cu}$    |       | 0.5                                                                       |
| Reduction factor $r_{304}$   |       | 0.75                                                                      |
| Reduction factor $r_{Brass}$ |       | 0.55                                                                      |
| Output type                  |       | 3-wire                                                                    |

### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 5 ... 30 V                 |
| Switching frequency         | $f$   | 0 ... 4500 Hz              |
| Hysteresis                  | $H$   | typ. 5%                    |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |
| Voltage drop                | $U_d$ | $\leq 1.5$ V               |
| Operating current           | $I_L$ | 0 ... 100 mA               |
| Off-state current           | $I_r$ | 0 ... 0.2 mA               |
| No-load supply current      | $I_0$ | $\leq 10$ mA               |

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

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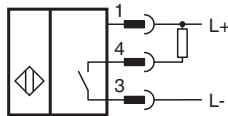
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 **PEPPERL+FUCHS**

Technical Data

|                                          |                |                                                              |
|------------------------------------------|----------------|--------------------------------------------------------------|
| Time delay before availability           | t <sub>v</sub> | ≤ 100 ms                                                     |
| Switching state indicator                |                | LED, yellow                                                  |
| Functional safety related parameters     |                |                                                              |
| MTTF <sub>d</sub>                        |                | 960 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                      |                | -40 ... 85 °C (-40 ... 185 °F)                               |
| Storage temperature                      |                | -40 ... 85 °C (-40 ... 185 °F)                               |
| Mechanical specifications                |                |                                                              |
| Connection type                          |                | fixed cable with plug                                        |
| Housing material                         |                | brass, nickel-plated                                         |
| Sensing face                             |                | LCP                                                          |
| Degree of protection                     |                | IP65 / IP66 / IP67                                           |
| Connector                                |                |                                                              |
| Threading                                |                | M8 x 1                                                       |
| Number of pins                           |                | 3                                                            |
| Cable                                    |                |                                                              |
| Cable diameter                           |                | 4.2 mm ± 0.15 mm                                             |
| Bending radius                           |                | > 15 x cable diameter                                        |
| Material                                 |                | PVC                                                          |
| Color                                    |                | black                                                        |
| Number of cores                          |                | 3                                                            |
| Core cross section                       |                | 0.25 mm <sup>2</sup>                                         |
| Length                                   | L              | 0.3 m                                                        |
| Dimensions                               |                |                                                              |
| Length                                   |                | 30 mm                                                        |
| Diameter                                 |                | 6.5 mm                                                       |

Connection



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Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

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