

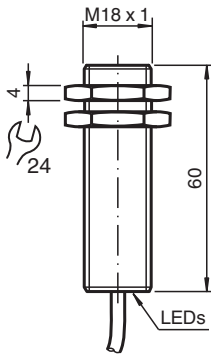
# Inductive sensor NBB5-18GM60-WO



- 5 mm flush
- 2-wire AC



## Dimensions



## Technical Data

### General specifications

|                            |       |                          |
|----------------------------|-------|--------------------------|
| Switching function         |       | Normally closed (NC)     |
| Output type                |       | Two-wire                 |
| Rated operating distance   | $s_n$ | 5 mm                     |
| Installation               |       | flush                    |
| Output polarity            |       | AC                       |
| Assured operating distance | $s_a$ | 0 ... 4.05 mm            |
| Actual operating distance  | $s_r$ | 4.5 ... 5.5 mm typ. 5 mm |
| Reduction factor $r_{Al}$  |       | 0.2                      |
| Reduction factor $r_{Cu}$  |       | 0.2                      |
| Reduction factor $r_{304}$ |       | 0.6                      |
| Output type                |       | 2-wire                   |

### Nominal ratings

|                                      |       |                                                |
|--------------------------------------|-------|------------------------------------------------|
| Operating voltage                    | $U_B$ | 20 ... 253 V                                   |
| Switching frequency                  | $f$   | 0 ... 20 Hz                                    |
| Hysteresis                           | $H$   | typ. 6 %                                       |
| Reverse polarity protection          |       | reverse polarity tolerant                      |
| Voltage drop                         | $U_d$ | < 5 V ( $I_L > 50$ mA); < 8 V ( $I_L < 50$ mA) |
| Momentary current<br>(20 ms, 0.1 Hz) |       | 0 ... 1600 mA                                  |
| Operating current                    | $I_L$ | 5 ... 200 mA                                   |

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

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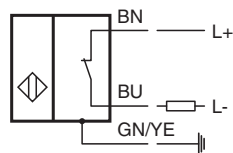
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**PEPPERL+FUCHS**

Technical Data

|                                          |                |                                                                                                                                                                                                                                                                |
|------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Off-state current                        | I <sub>r</sub> | 0 ... 1.7 mA typ.                                                                                                                                                                                                                                              |
| Time delay before availability           | t <sub>v</sub> | ≤ 30 ms                                                                                                                                                                                                                                                        |
| Operating voltage indicator              |                | LED, green                                                                                                                                                                                                                                                     |
| Switching state indicator                |                | LED, yellow                                                                                                                                                                                                                                                    |
| Functional safety related parameters     |                |                                                                                                                                                                                                                                                                |
| MTTF <sub>d</sub>                        |                | 1135 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                                                                                                                                                                                                                                  |
| CSA approval                             |                | cCSAus Listed, General Purpose                                                                                                                                                                                                                                 |
| CCC approval                             |                | Certified by China Compulsory Certification (CCC)                                                                                                                                                                                                              |
| Ambient conditions                       |                |                                                                                                                                                                                                                                                                |
| Ambient temperature                      |                | -25 ... 70 °C (-13 ... 158 °F)                                                                                                                                                                                                                                 |
| Mechanical specifications                |                |                                                                                                                                                                                                                                                                |
| Connection type                          |                | cable PVC , 2 m                                                                                                                                                                                                                                                |
| Core cross section                       |                | 0.34 mm <sup>2</sup>                                                                                                                                                                                                                                           |
| Housing material                         |                | brass, nickel-plated                                                                                                                                                                                                                                           |
| Sensing face                             |                | PBT                                                                                                                                                                                                                                                            |
| Degree of protection                     |                | IP67                                                                                                                                                                                                                                                           |
| Dimensions                               |                |                                                                                                                                                                                                                                                                |
| Length                                   |                | 60 mm                                                                                                                                                                                                                                                          |
| Diameter                                 |                | 18 mm                                                                                                                                                                                                                                                          |
| Note                                     |                | 1) In the temperature range below 0 °C, permissible operating voltage U <sub>b</sub> 80...253 V<br>Safety fuse ≤ 0.8 A (quick-blow) according to IEC 60127-2 Sheet 1<br>Recommendation: after a short circuit, check that the device is functioning correctly. |

Connection



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