

# Inductive sensor

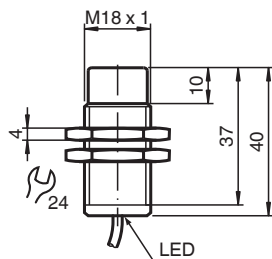
## NBN8-18GM40-Z0-Y241320



- Basic series
- 8 mm non-flush
- 2-wire DC



### Dimensions



### Technical Data

|                             |       |                           |
|-----------------------------|-------|---------------------------|
| General specifications      |       |                           |
| Switching function          |       | Normally open (NO)        |
| Output type                 |       | Two-wire                  |
| Rated operating distance    | $s_n$ | 8 mm                      |
| Installation                |       | non-flush                 |
| Output polarity             |       | DC                        |
| Assured operating distance  | $s_a$ | 0 ... 6.5 mm              |
| Actual operating distance   | $s_r$ | 7.2 ... 8.8 mm typ. 8 mm  |
| Reduction factor $r_{Al}$   |       | 0.43                      |
| Reduction factor $r_{Cu}$   |       | 0.42                      |
| Reduction factor $r_{304}$  |       | 0.73                      |
| Nominal ratings             |       |                           |
| Operating voltage           | $U_B$ | 10 ... 30 V               |
| Switching frequency         | $f$   | 0 ... 500 Hz              |
| Hysteresis                  | $H$   | 1 ... 10 typ. 5 %         |
| Reverse polarity protection |       | reverse polarity tolerant |

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

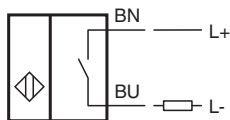
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## Technical Data

|                                                 |       |                                                                            |
|-------------------------------------------------|-------|----------------------------------------------------------------------------|
| Short-circuit protection                        |       | pulsing                                                                    |
| Voltage drop                                    | $U_d$ | $\leq 5 \text{ V}$                                                         |
| Operating current                               | $I_L$ | 2 ... 100 mA                                                               |
| Lowest operating current                        | $I_m$ | 2 mA                                                                       |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA typ.                                                          |
| Switching state indicator                       |       | all direction LED, yellow                                                  |
| <b>Functional safety related parameters</b>     |       |                                                                            |
| MTTF <sub>d</sub>                               |       | 1694 a                                                                     |
| Mission Time (T <sub>M</sub> )                  |       | 20 a                                                                       |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                        |
| <b>Compliance with standards and directives</b> |       |                                                                            |
| Standard conformity                             |       |                                                                            |
| Standards                                       |       | EN 60947-5-2:2007<br>IEC 60947-5-2:2007                                    |
| <b>Approvals and certificates</b>               |       |                                                                            |
| UL approval                                     |       | cULus Listed, General Purpose                                              |
| CSA approval                                    |       | cCSAus Listed, General Purpose                                             |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| <b>Ambient conditions</b>                       |       |                                                                            |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                             |
| <b>Mechanical specifications</b>                |       |                                                                            |
| 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                                                                       |
| <b>General information</b>                      |       |                                                                            |
| Scope of delivery                               |       | 2 toothed lock washers                                                     |

## Connection



## Accessories

|                                                                                     |              |                        |
|-------------------------------------------------------------------------------------|--------------|------------------------|
|  | <b>BF 18</b> | Mounting flange, 18 mm |
|-------------------------------------------------------------------------------------|--------------|------------------------|