

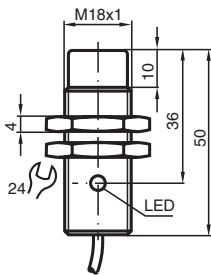
# Inductive sensor NJ8-18GM50-E2



- Comfort series
- 8 mm non-flush



## Dimensions



## Technical Data

| General specifications       |       |                          |
|------------------------------|-------|--------------------------|
| Switching function           |       | Normally open (NO)       |
| Output type                  |       | PNP                      |
| Rated operating distance     | $s_n$ | 8 mm                     |
| Installation                 |       | non-flush                |
| Output polarity              |       | DC                       |
| Assured operating distance   | $s_a$ | 0 ... 6.48 mm            |
| Actual operating distance    | $s_r$ | 7.2 ... 8.8 mm typ. 8 mm |
| Reduction factor $r_{Al}$    |       | 0.42                     |
| Reduction factor $r_{Cu}$    |       | 0.4                      |
| Reduction factor $r_{304}$   |       | 0.72                     |
| Reduction factor $r_{Brass}$ |       | 0.5                      |
| Output type                  |       | 3-wire                   |
| Nominal ratings              |       |                          |
| Installation conditions      |       |                          |
| A                            |       | 10 mm                    |
| B                            |       | 54 mm                    |

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

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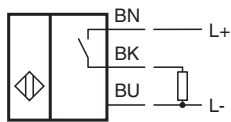
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**PEPPERL+FUCHS**

## Technical Data

|                                                        |       |                                                   |
|--------------------------------------------------------|-------|---------------------------------------------------|
| C                                                      |       | 24 mm                                             |
| Operating voltage                                      | $U_B$ | 10 ... 60 V                                       |
| Switching frequency                                    | f     | 0 ... 1000 Hz                                     |
| Hysteresis                                             | H     | 1 ... 10 % typ. 7.5 %                             |
| Reverse polarity protection                            |       | reverse polarity protected                        |
| Short-circuit protection                               |       | pulsing                                           |
| Voltage drop                                           | $U_d$ | $\leq 3$ V                                        |
| Voltage drop at $I_L$                                  |       |                                                   |
| Voltage drop $I_L = 100$ mA, switching element on      | $U_d$ | 1.5 ... 2.5 V typ. 1.9 V                          |
| Operating current                                      | $I_L$ | 0 ... 200 mA                                      |
| Lowest operating current                               | $I_m$ | 0 mA                                              |
| Off-state current                                      | $I_r$ | 0 ... 0.5 mA typ. 0.01 mA                         |
| Off-state current $T_U = 40$ °C, switching element off |       | $\leq 100$ $\mu$ A                                |
| No-load supply current                                 | $I_o$ | $\leq 9$ mA                                       |
| Time delay before availability                         | $t_v$ | $\leq 30$ ms                                      |
| Switching state indicator                              |       | LED, yellow                                       |
| <b>Functional safety related parameters</b>            |       |                                                   |
| MTTF <sub>d</sub>                                      |       | 1424 a                                            |
| Mission Time ( $T_M$ )                                 |       | 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                                           |       | Certified by China Compulsory Certification (CCC) |
| <b>Ambient conditions</b>                              |       |                                                   |
| Ambient temperature                                    |       | -25 ... 70 °C (-13 ... 158 °F)                    |
| Storage temperature                                    |       | -40 ... 85 °C (-40 ... 185 °F)                    |
| <b>Mechanical specifications</b>                       |       |                                                   |
| Connection type                                        |       | cable                                             |
| Housing material                                       |       | Stainless steel 1.4305 / AISI 303                 |
| Sensing face                                           |       | PBT                                               |
| Degree of protection                                   |       | IP67                                              |
| <b>Cable</b>                                           |       |                                                   |
| Wire end ferrules                                      |       | yes                                               |
| Cable diameter                                         |       | 6.4 mm $\pm$ 0.2 mm                               |
| Bending radius                                         |       | > 10 x cable diameter                             |
| Material                                               |       | PVC                                               |
| Color                                                  |       | grey                                              |
| Number of cores                                        |       | 3                                                 |
| Core cross section                                     |       | 0.5 mm <sup>2</sup>                               |
| Length                                                 | L     | 2 m                                               |
| <b>Dimensions</b>                                      |       |                                                   |
| Length                                                 |       | 50 mm                                             |
| Diameter                                               |       | 18 mm                                             |

Connection



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