

# Inductive sensor

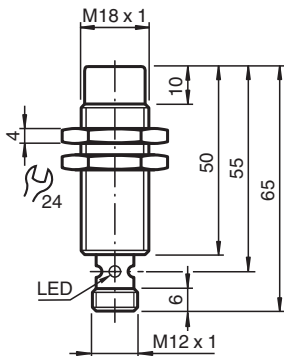
## NJ8-18GM50-A2-V1



■ 8 mm non-flush



### Dimensions



### Technical Data

| General specifications      |       |                            |
|-----------------------------|-------|----------------------------|
| Switching function          |       | complementary              |
| 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              |
| Reduction factor $r_{Al}$   |       | 0.45                       |
| Reduction factor $r_{Cu}$   |       | 0.4                        |
| Reduction factor $r_{304}$  |       | 0.7                        |
| Nominal ratings             |       |                            |
| Operating voltage           | $U_B$ | 10 ... 60 V                |
| Switching frequency         | $f$   | 0 ... 500 Hz               |
| Hysteresis                  | $H$   | typ. 8 %                   |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |

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

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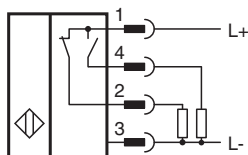
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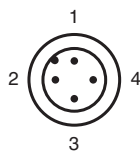
Technical Data

|                                                 |       |                                                   |
|-------------------------------------------------|-------|---------------------------------------------------|
| Voltage drop                                    | $U_d$ | $\leq 3\text{ V}$                                 |
| Operating current                               | $I_L$ | 0 ... 400 mA                                      |
| Off-state current                               | $I_r$ | 0 ... 0.5 mA                                      |
| No-load supply current                          | $I_0$ | $\leq 15\text{ mA}$                               |
| Switching state indicator                       |       | Multihole-LED, yellow                             |
| <b>Functional safety related parameters</b>     |       |                                                   |
| MTTF <sub>d</sub>                               |       | 1150 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>               |       |                                                   |
| EAC conformity                                  |       | TR CU 020/2011                                    |
| UL approval                                     |       | cULus Listed, General Purpose                     |
| CSA approval                                    |       | cCSAus Listed, General Purpose                    |
| CCC approval                                    |       | Certified by China Compulsory Certification (CCC) |
| <b>Ambient conditions</b>                       |       |                                                   |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                    |
| <b>Mechanical specifications</b>                |       |                                                   |
| Connection type                                 |       | Connector M12 x 1 , 4-pin                         |
| Housing material                                |       | Stainless steel 1.4305 / AISI 303                 |
| Sensing face                                    |       | PBT                                               |
| Degree of protection                            |       | IP67                                              |

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

## Accessories

|                                                                                   |                    |                                       |
|-----------------------------------------------------------------------------------|--------------------|---------------------------------------|
|  | <b>BF 18</b>       | Mounting flange, 18 mm                |
|  | <b>V1-W-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |
|  | <b>V1-G-2M-PUR</b> | Female cordset, M12, 4-pin, PUR cable |