

# Inductive sensor

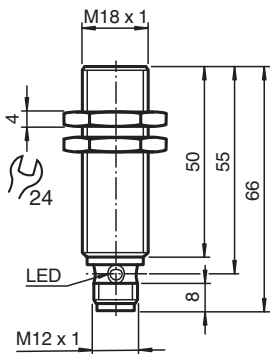
## NBB5-18GS50-Z4L-V1



- 5 mm flush
- 2-wire DC sensor with minimum off-state current
- Switching status indicator, yellow LED
- Stainless steel housing



### Dimensions



### Technical Data

| General specifications            |                |                                         |
|-----------------------------------|----------------|-----------------------------------------|
| Switching function                |                | Normally open (NO)                      |
| Output type                       |                | Two-wire with minimum off-state current |
| Rated operating distance          | s <sub>n</sub> | 5 mm                                    |
| Installation                      |                | flush                                   |
| Output polarity                   |                | DC                                      |
| Assured operating distance        | s <sub>a</sub> | 0 ... 4.05 mm                           |
| Actual operating distance         | s <sub>r</sub> | 4.5 ... 5.5 mm                          |
| Reduction factor r <sub>Al</sub>  |                | 0.2                                     |
| Reduction factor r <sub>Cu</sub>  |                | 0.13                                    |
| Reduction factor r <sub>304</sub> |                | 0.62                                    |
| Output type                       |                | 2-wire                                  |
| Nominal ratings                   |                |                                         |
| Operating voltage                 | U <sub>B</sub> | 4 ... 30 V                              |
| Switching frequency               | f              | 0 ... 500 Hz                            |
| Hysteresis                        | H              | 1 ... 10 typ. 5 %                       |

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

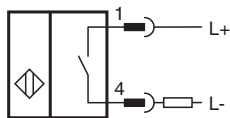
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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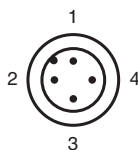
## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reverse polarity protection                     |       | yes                                                                                         |
| Short-circuit protection                        |       | pulsing                                                                                     |
| Voltage drop                                    | $U_d$ | $\leq 4 \text{ V}$                                                                          |
| Operating current                               | $I_L$ | 2 ... 30 mA                                                                                 |
| Lowest operating current                        | $I_m$ | 2 mA                                                                                        |
| Off-state current                               | $I_r$ | $\leq 200 \mu\text{A}$                                                                      |
| Switching state indicator                       |       | Multihole-LED, yellow                                                                       |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| MTTF <sub>d</sub>                               |       | 1581 a                                                                                      |
| Mission Time ( $T_M$ )                          |       | 20 a                                                                                        |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                                         |
| <b>Compliance with standards and directives</b> |       |                                                                                             |
| Standard conformity                             |       |                                                                                             |
| Standards                                       |       | EN 60947-5-2:2007<br>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>IEC 60947-5-2 AMD 1:2012 |
| <b>Approvals and certificates</b>               |       |                                                                                             |
| UL approval                                     |       | cULus Listed, General Purpose, Class 2 Power Source                                         |
| 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)                                                              |
| Storage temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                                              |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | Connector plug M12 x 1 , 4-pin                                                              |
| Housing material                                |       | Stainless steel 1.4305 / AISI 303                                                           |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP67                                                                                        |
| Mass                                            |       | 59 g                                                                                        |
| <b>General information</b>                      |       |                                                                                             |
| Scope of delivery                               |       | 2 self locking nuts in scope of delivery                                                    |

## 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>EXG-18</b>      | Quick mounting bracket with dead stop |
|  | <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 |

Release date: 2020-05-18 Date of issue: 2020-05-18 Filename: 323676-0009\_eng.pdf