

# Inductive sensor

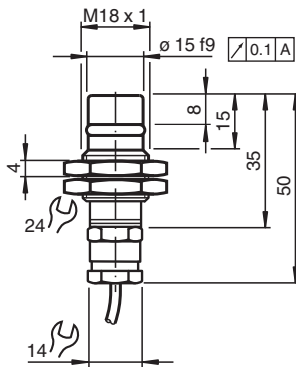
## NJ1,5-18GM-N-D



- 1.5 mm flush
- Compression proof up to 350 bar, dynamic on active surface
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 1.5 mm               |
| Installation               |       | flush                |
| Assured operating distance | $s_a$ | 0 ... 1.22 mm        |
| Reduction factor $r_{AI}$  |       | 0                    |
| Reduction factor $r_{Cu}$  |       | 0                    |
| Reduction factor $r_{304}$ |       | 0.55                 |
| Output type                |       | 2-wire               |

#### Nominal ratings

|                              |       |                                      |
|------------------------------|-------|--------------------------------------|
| Nominal voltage              | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Switching frequency          | $f$   | 0 ... 400 Hz                         |
| Hysteresis                   | $H$   | typ. %                               |
| Current consumption          |       |                                      |
| Measuring plate not detected |       | min. 3 mA                            |
| Measuring plate detected     |       | $\leq 1$ mA                          |

#### Limit data

|                    |  |                      |
|--------------------|--|----------------------|
| Operating pressure |  | 350 bar (5076.4 psi) |
|--------------------|--|----------------------|

#### Functional safety related parameters

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

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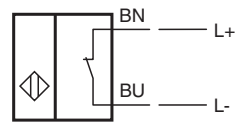
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## Technical Data

|                                                 |   |                                         |
|-------------------------------------------------|---|-----------------------------------------|
| Safety Integrity Level (SIL)                    |   | SIL 2                                   |
| MTTF <sub>d</sub>                               |   | 10880 a                                 |
| Mission Time (T <sub>M</sub> )                  |   | 20 a                                    |
| Diagnostic Coverage (DC)                        |   | 0 %                                     |
| <b>Compliance with standards and directives</b> |   |                                         |
| Standard conformity                             |   |                                         |
| NAMUR                                           |   | EN 60947-5-6:2000<br>IEC 60947-5-6:1999 |
| Standards                                       |   | EN IEC 60947-5-2                        |
| <b>Approvals and certificates</b>               |   |                                         |
| IECEX approval                                  |   |                                         |
| Equipment protection level Gb                   |   | IECEX PTB 11.0037X                      |
| Equipment protection level Da                   |   | IECEX PTB 11.0037X                      |
| Equipment protection level Mb                   |   | IECEX PTB 11.0037X                      |
| ATEX approval                                   |   |                                         |
| Equipment protection level Gb                   |   | PTB 00 ATEX 2048 X                      |
| Equipment protection level Da                   |   | PTB 00 ATEX 2048 X                      |
| FM approval                                     |   |                                         |
| Control drawing                                 |   | 116-0165                                |
| UL approval                                     |   | cULus Listed, General Purpose           |
| CCC approval                                    |   |                                         |
| Hazardous Location                              |   | 2020322315002255                        |
| CML approval                                    |   | on request                              |
| ANZEx                                           |   | 18.3018X                                |
| KCC approval                                    |   |                                         |
| Hazardous Location                              |   | 19-AV4BO-0227                           |
| <b>Ambient conditions</b>                       |   |                                         |
| Ambient temperature                             |   | -25 ... 85 °C (-13 ... 185 °F)          |
| <b>Mechanical specifications</b>                |   |                                         |
| Connection type                                 |   | cable                                   |
| Housing material                                |   | Stainless steel 1.4305 / AISI 303       |
| Sensing face                                    |   | Ceramic                                 |
| Degree of protection                            |   | IP66 / IP68                             |
| Cable                                           |   |                                         |
| Cable diameter                                  |   | 4.8 mm ± 0.2 mm                         |
| Bending radius                                  |   | > 10 x cable diameter                   |
| Material                                        |   | PVC                                     |
| Core cross section                              |   | 0.34 mm <sup>2</sup>                    |
| Length                                          | L | 2 m                                     |
| Dimensions                                      |   |                                         |
| Length                                          |   | 50 mm                                   |
| Diameter                                        |   | 18 mm                                   |
| <b>General information</b>                      |   |                                         |
| Use in the hazardous area                       |   | see instruction manuals                 |

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Connection



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## Installation

### Note

Please refer to the technical information about this product at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com). This information describes the necessary geometry of the installation space!

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