

# Inductive sensor

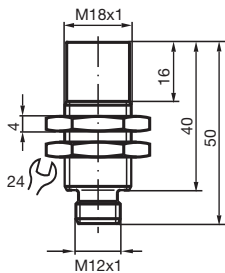
## NJ8-18GM-N-V1



- 8 mm non-flush
- Usable up to SIL 2 acc. to IEC 61508



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 8 mm                 |
| Installation               |       | non-flush            |
| Assured operating distance | $s_a$ | 0 ... 6.48 mm        |
| Reduction factor $r_{AI}$  |       | 0.4                  |
| Reduction factor $r_{Cu}$  |       | 0.3                  |
| Reduction factor $r_{304}$ |       | 0.85                 |
| Output type                |       | 2-wire               |

#### Nominal ratings

|                     |       |                                      |
|---------------------|-------|--------------------------------------|
| Nominal voltage     | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Operating voltage   | $U_B$ | 5 ... 25 V                           |
| Switching frequency | $f$   | 0 ... 200 Hz                         |

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

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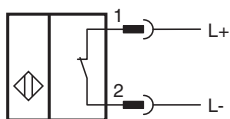
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**PEPPERL+FUCHS**

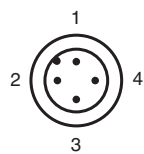
## Technical Data

|                                                 |   |                                                                                             |
|-------------------------------------------------|---|---------------------------------------------------------------------------------------------|
| Hysteresis                                      | H | 3 %                                                                                         |
| Current consumption                             |   |                                                                                             |
| Measuring plate not detected                    |   | ≥ 3 mA at nominal voltage                                                                   |
| Measuring plate detected                        |   | ≤ 1 mA at nominal voltage                                                                   |
| <b>Compliance with standards and directives</b> |   |                                                                                             |
| Standard conformity                             |   |                                                                                             |
| NAMUR                                           |   | EN 60947-5-6:2000<br>IEC 60947-5-6:1999                                                     |
| 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>               |   |                                                                                             |
| IECEX approval                                  |   |                                                                                             |
| Equipment protection level Ga                   |   | IECEX PTB 11.0037X                                                                          |
| 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 Ga                   |   | PTB 00 ATEX 2048 X                                                                          |
| Equipment protection level Gb                   |   | PTB 00 ATEX 2048 X                                                                          |
| Equipment protection level Da                   |   | PTB 00 ATEX 2048 X                                                                          |
| EAC conformity                                  |   | TR CU 012/2011                                                                              |
| FM approval                                     |   |                                                                                             |
| Control drawing                                 |   | 116-0165                                                                                    |
| UL approval                                     |   |                                                                                             |
| Ordinary Location                               |   | E87056                                                                                      |
| Hazardous Location                              |   | E501628                                                                                     |
| Control drawing                                 |   | 116-0452                                                                                    |
| CSA approval                                    |   | cCSAus Listed, General Purpose                                                              |
| CCC approval                                    |   | CCC approval / marking not required for products rated ≤36 V                                |
| <b>Ambient conditions</b>                       |   |                                                                                             |
| Ambient temperature                             |   | -25 ... 100 °C (-13 ... 212 °F)                                                             |
| <b>Mechanical specifications</b>                |   |                                                                                             |
| Connection type                                 |   | Connector plug                                                                              |
| Housing material                                |   | Stainless steel 1.4305 / AISI 303                                                           |
| Sensing face                                    |   | PBT                                                                                         |
| Degree of protection                            |   | IP67                                                                                        |
| Connector                                       |   |                                                                                             |
| Threading                                       |   | M12 x 1                                                                                     |
| Number of pins                                  |   | 4                                                                                           |
| <b>General information</b>                      |   |                                                                                             |
| Use in the hazardous area                       |   | see instruction manuals                                                                     |

## Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-6

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | BU | (blue)  |

Accessories

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

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