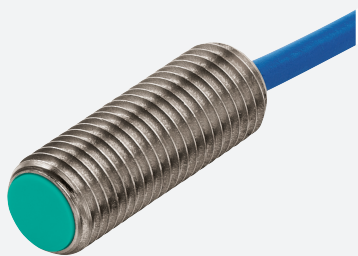


Inductive sensor

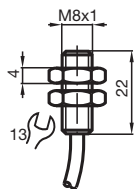
NJ1,5-8GM-N



- 1.5 mm 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 <sub>n</sub> | 1.5 mm                |  |
| Installation                     |                | flush                 |  |
| Assured operating distance       | s <sub>a</sub> | 0 ... 1.215 mm        |  |
| Actual operating distance        | s <sub>r</sub> | 1.35 ... 1.65 mm typ. |  |
| Reduction factor r <sub>AI</sub> |                | 0.4                   |  |
| Reduction factor r <sub>Cu</sub> |                | 0.3                   |  |

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

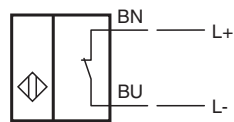
 **PEPPERL+FUCHS**

## Technical Data

|                                                 |       |                                                                                             |
|-------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| Reduction factor $r_{304}$                      |       | 0.85                                                                                        |
| Output type                                     |       | 2-wire                                                                                      |
| <b>Nominal ratings</b>                          |       |                                                                                             |
| Nominal voltage                                 | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ )                                                        |
| Switching frequency                             | $f$   | 0 ... 5000 Hz                                                                               |
| Hysteresis                                      | $H$   | 1 ... 10 typ. 5 %                                                                           |
| Suitable for 2:1 technology                     |       | yes, Reverse polarity protection diode not required                                         |
| Current consumption                             |       |                                                                                             |
| Measuring plate not detected                    |       | min. 3 mA                                                                                   |
| Measuring plate detected                        |       | $\leq 1$ mA                                                                                 |
| <b>Functional safety related parameters</b>     |       |                                                                                             |
| Safety Integrity Level (SIL)                    |       | SIL 2                                                                                       |
| <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 $\leq 36$ V                          |
| <b>Ambient conditions</b>                       |       |                                                                                             |
| Ambient temperature                             |       | -25 ... 100 °C (-13 ... 212 °F)                                                             |
| <b>Mechanical specifications</b>                |       |                                                                                             |
| Connection type                                 |       | cable PVC, 2 m                                                                              |
| Core cross-section                              |       | 0.14 mm <sup>2</sup>                                                                        |
| Housing material                                |       | Stainless steel 1.4305 / AISI 303                                                           |
| Sensing face                                    |       | PBT                                                                                         |
| Degree of protection                            |       | IP66 / IP67                                                                                 |
| Cable                                           |       |                                                                                             |
| Cable diameter                                  |       | 2.6 mm $\pm$ 0.2 mm                                                                         |
| Bending radius                                  |       | > 10 x cable diameter                                                                       |
| <b>General information</b>                      |       |                                                                                             |
| Use in the hazardous area                       |       | see instruction manuals                                                                     |

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Connection



Accessories

|  |             |                       |
|--|-------------|-----------------------|
|  | <b>BF 8</b> | Mounting flange, 8 mm |
|--|-------------|-----------------------|

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