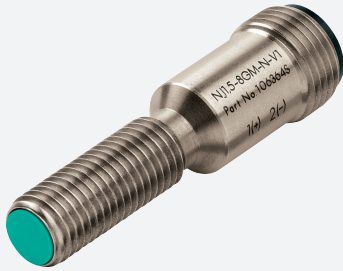


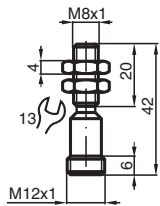
# Inductive sensor NJ1,5-8GM-N-V1



- 1.5 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- Stainless steel housing



## 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 ... 1.215 mm                                       |
| Actual operating distance   | $s_r$ | 1.35 ... 1.65 mm typ.                                |
| 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 $\Omega$ )                 |
| 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         |       |                                                      |

Release date: 2024-10-09 Date of issue: 2024-10-09 Filename: 70133081\_eng.pdf

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

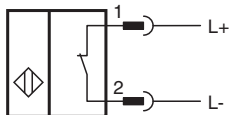
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| Measuring plate not detected                    | min. 3 mA                               |
| Measuring plate detected                        | ≤ 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 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                      |
| UL approval                                     | cULus Listed, General Purpose           |
| CCC approval                                    |                                         |
| Hazardous Location                              | 2020322315002256                        |
| CML approval                                    | on request                              |
| ANZEx                                           | 18.3018X                                |
| Marine approval                                 | DNVGL TAA00001A5                        |
| <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                                       |
| Dimensions                                      |                                         |
| Length                                          | 20 mm                                   |
| Diameter                                        | 8 mm                                    |
| <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)  |

Release date: 2024-10-09 Date of issue: 2024-10-09 Filename: 70133081\_eng.pdf