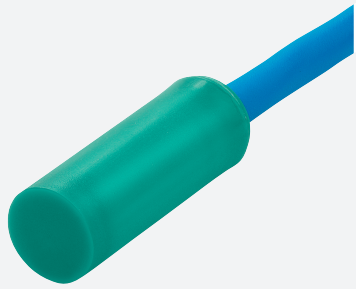


# Inductive sensor

## NJ5-11-N-15M



- 5 mm non-flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- 15 m connection cable



## Dimensions



## Technical Data

### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 5 mm                 |
| Installation               |       | non-flush            |
| Assured operating distance | $s_a$ | 0 ... 4.05 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 $\Omega$ )                 |
| Switching frequency          | $f$   | 0 ... 3000 Hz                                        |
| Hysteresis                   | $H$   | typ. %                                               |
| Suitable for 2:1 technology  |       | yes , Reverse polarity protection diode not required |
| Current consumption          |       |                                                      |
| Measuring plate not detected |       | min. 3 mA                                            |

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

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**PEPPERL+FUCHS**

## Technical Data

|                                                 |                                         |
|-------------------------------------------------|-----------------------------------------|
| Measuring plate detected                        | ≤ 1 mA                                  |
| <b>Functional safety related parameters</b>     |                                         |
| Safety Integrity Level (SIL)                    | SIL 2                                   |
| MTTF <sub>d</sub>                               | 11774 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                      |
| UL approval                                     | cULus Listed, General Purpose           |
| CCC approval                                    |                                         |
| Hazardous Location                              | 2020322315002255                        |
| CML approval                                    | on request                              |
| ANZEx                                           | 18.3018X                                |
| <b>Ambient conditions</b>                       |                                         |
| Ambient temperature                             | -25 ... 100 °C (-13 ... 212 °F)         |
| <b>Mechanical specifications</b>                |                                         |
| Connection type                                 | cable                                   |
| Housing material                                | PVDF                                    |
| Sensing face                                    | PVDF                                    |
| Degree of protection                            | IP68                                    |
| <b>Cable</b>                                    |                                         |
| 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 15 m                                  |
| <b>Dimensions</b>                               |                                         |
| Length                                          | 30 mm                                   |
| Diameter                                        | 11 mm                                   |
| <b>General information</b>                      |                                         |
| Use in the hazardous area                       | see instruction manuals                 |

## Connection Assignment

