

# Inductive sensor

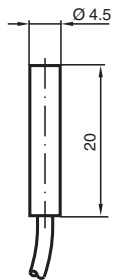
## NJ0,8-4,5-N



- 0.8 mm flush
- 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 <sub>n</sub> | 0.8 mm                                               |
| Installation                      |                | flush                                                |
| Assured operating distance        | s <sub>a</sub> | 0 ... 0.65 mm                                        |
| Reduction factor r <sub>Al</sub>  |                | 0.4                                                  |
| Reduction factor r <sub>Cu</sub>  |                | 0.3                                                  |
| Reduction factor r <sub>304</sub> |                | 0.85                                                 |
| Output type                       |                | 2-wire                                               |
| Nominal ratings                   |                |                                                      |
| Nominal voltage                   | U <sub>o</sub> | 8.2 V (R <sub>i</sub> approx. 1 kΩ)                  |
| Operating voltage                 | U <sub>B</sub> | 5 ... 25 V                                           |
| Switching frequency               | f              | 0 ... 5000 Hz                                        |
| Hysteresis                        | H              | typ. 5 %                                             |
| Suitable for 2:1 technology       |                | yes , Reverse polarity protection diode not required |
| Current consumption               |                |                                                      |

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

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## Technical Data

|                                                 |   |                                         |
|-------------------------------------------------|---|-----------------------------------------|
| Measuring plate not detected                    |   | ≥ 3 mA at nominal voltage               |
| Measuring plate detected                        |   | ≤ 1 mA at nominal voltage               |
| <b>Functional safety related parameters</b>     |   |                                         |
| Safety Integrity Level (SIL)                    |   | SIL 2                                   |
| MTTF <sub>d</sub>                               |   | 1050 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                              |   | 2020322315002256                        |
| CML approval                                    |   | on request                              |
| ANZEx                                           |   | 18.3018X                                |
| KCC approval                                    |   |                                         |
| Hazardous Location                              |   | 19-AV4BO-0025X                          |
| <b>Ambient conditions</b>                       |   |                                         |
| Ambient temperature                             |   | -25 ... 100 °C (-13 ... 212 °F)         |
| <b>Mechanical specifications</b>                |   |                                         |
| Connection type                                 |   | cable                                   |
| Core cross section                              |   | 0.14 mm <sup>2</sup>                    |
| Housing material                                |   | Stainless steel 1.4305 / AISI 303       |
| Sensing face                                    |   | PBT                                     |
| Degree of protection                            |   | IP67                                    |
| Cable                                           |   |                                         |
| Cable diameter                                  |   | 2.6 mm ± 0.2 mm                         |
| Bending radius                                  |   | > 10 x cable diameter                   |
| Material                                        |   | PVC                                     |
| Core cross section                              |   | 0.14 mm <sup>2</sup>                    |
| Length                                          | L | 2 m                                     |
| Dimensions                                      |   |                                         |
| Length                                          |   | 20 mm                                   |
| Diameter                                        |   | 4.5 mm                                  |
| <b>General information</b>                      |   |                                         |
| Use in the hazardous area                       |   | see instruction manuals                 |

## Connection Assignment

