

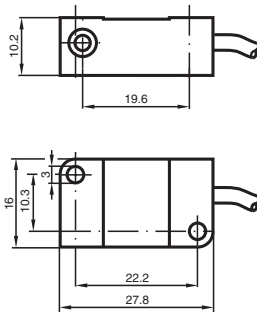
## Inductive sensor

### NJ2-V3-N

- 2 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   | $s_n$ | 2 mm                 |
| Installation               |       | flush                |
| Assured operating distance | $s_a$ | 0 ... 1.62 mm        |
| Reduction factor $r_{Al}$  |       | 0.25                 |
| Reduction factor $r_{Cu}$  |       | 0.2                  |
| Reduction factor $r_{304}$ |       | 0.7                  |
| Output type                |       | 2-wire               |

### Nominal ratings

|                              |       |                                                      |
|------------------------------|-------|------------------------------------------------------|
| Nominal voltage              | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ )                 |
| Switching frequency          | $f$   | 0 ... 1000 Hz                                        |
| Hysteresis                   | $H$   | 0.01 ... 0.1 mm                                      |
| Suitable for 2:1 technology  |       | yes , Reverse polarity protection diode not required |
| Current consumption          |       |                                                      |
| Measuring plate not detected |       | $\geq 3$ mA                                          |
| Measuring plate detected     |       | $\leq 1$ mA                                          |

### Functional safety related parameters

|                              |  |         |
|------------------------------|--|---------|
| Safety Integrity Level (SIL) |  | SIL 2   |
| MTTF <sub>d</sub>            |  | 11775 a |
| Mission Time ( $T_M$ )       |  | 20 a    |

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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

|                                                 |   |                                         |
|-------------------------------------------------|---|-----------------------------------------|
| 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 Ga                   |   | IECEx PTB 11.0021X                      |
| Equipment protection level Gb                   |   | IECEx PTB 11.0021X                      |
| Equipment protection level Da                   |   | IECEx PTB 11.0021X                      |
| Equipment protection level Mb                   |   | IECEx PTB 11.0021X                      |
| ATEX approval                                   |   |                                         |
| Equipment protection level Ga                   |   | PTB 00 ATEX 2032 X                      |
| Equipment protection level Gb                   |   | PTB 00 ATEX 2032 X                      |
| Equipment protection level Da                   |   | PTB 00 ATEX 2032 X                      |
| UL approval                                     |   |                                         |
| Ordinary Location                               |   | E87056                                  |
| Hazardous Location                              |   | E501628                                 |
| Control drawing                                 |   | 116-0451                                |
| CCC approval                                    |   |                                         |
| Hazardous Location                              |   | 2020322315002302                        |
| NEPSI approval                                  |   |                                         |
| NEPSI certificate                               |   | GYJ16.1394X                             |
| CML approval                                    |   | on request                              |
| ANZEx                                           |   | 19.3001X                                |
| <b>Ambient conditions</b>                       |   |                                         |
| Ambient temperature                             |   | -25 ... 100 °C (-13 ... 212 °F)         |
| <b>Mechanical specifications</b>                |   |                                         |
| Connection type                                 |   | cable                                   |
| Housing material                                |   | PBT                                     |
| 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 | 130 mm                                  |
| Tightening torque, fastening screws             |   | ≤ 0.4 Nm                                |
| <b>Dimensions</b>                               |   |                                         |
| Height                                          |   | 10.2 mm                                 |
| Width                                           |   | 27.8 mm                                 |
| Length                                          |   | 16 mm                                   |
| <b>General information</b>                      |   |                                         |
| Use in the hazardous area                       |   | see instruction manuals                 |

## Connection

