

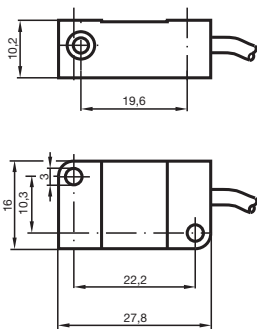
# Inductive sensor

## 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 <sub>n</sub> | 2 mm                                                 |
| Installation                      |                | flush                                                |
| Assured operating distance        | s <sub>a</sub> | 0 ... 1.62 mm                                        |
| Reduction factor r <sub>Al</sub>  |                | 0.25                                                 |
| Reduction factor r <sub>Cu</sub>  |                | 0.2                                                  |
| Reduction factor r <sub>304</sub> |                | 0.7                                                  |
| Output type                       |                | 2-wire                                               |
| Nominal ratings                   |                |                                                      |
| Nominal voltage                   | U <sub>o</sub> | 8.2 V (R <sub>i</sub> approx. 1 kΩ)                  |
| 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      |                | ≥ 3 mA                                               |
| Measuring plate detected          |                | ≤ 1 mA                                               |

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

### Functional safety related parameters

|                                |         |
|--------------------------------|---------|
| Safety Integrity Level (SIL)   | SIL 2   |
| MTTF <sub>d</sub>              | 11775 a |
| Mission Time (T <sub>M</sub> ) | 20 a    |
| Diagnostic Coverage (DC)       | 0 %     |

### Compliance with standards and directives

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| 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 |

### Approvals and certificates

|                    |                                                              |
|--------------------|--------------------------------------------------------------|
| EAC conformity     | TR CU 012/2011                                               |
| FM approval        |                                                              |
| Control drawing    | 116-0165                                                     |
| UL approval        |                                                              |
| Ordinary Location  | E87056                                                       |
| Hazardous Location | E501628                                                      |
| Control drawing    | 116-0451                                                     |
| CSA approval       | cCSAus Listed, General Purpose                               |
| CCC approval       | CCC approval / marking not required for products rated ≤36 V |

### Ambient conditions

|                     |                                 |
|---------------------|---------------------------------|
| Ambient temperature | -25 ... 100 °C (-13 ... 212 °F) |
|---------------------|---------------------------------|

### Mechanical specifications

|                      |                       |
|----------------------|-----------------------|
| Connection type      | cable PVC , 130 mm    |
| Core cross-section   | 0.14 mm <sup>2</sup>  |
| 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 |

### General information

|                           |                         |
|---------------------------|-------------------------|
| Use in the hazardous area | see instruction manuals |
|---------------------------|-------------------------|

## Connection

