

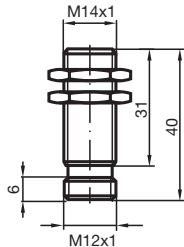
# Inductive sensor

## NJ2,5-14GM-N-V1-Y21146

- Comfort series
- Usable up to SIL 2 acc. to IEC 61508
- 2.5 mm flush



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 2.5 mm               |
| Installation               |       | flush                |
| Assured operating distance | $s_a$ | 0 ... 2.02 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 ... 1500 Hz                        |
| Current consumption          |       |                                      |
| Measuring plate not detected |       | min. 3 mA                            |
| Measuring plate detected     |       | $\leq 1$ mA                          |

#### Functional safety related parameters

|                              |  |        |
|------------------------------|--|--------|
| Safety Integrity Level (SIL) |  | SIL 2  |
| MTTF <sub>d</sub>            |  | 5887 a |

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

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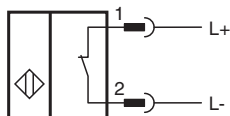
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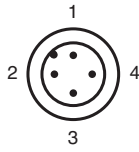
## Technical Data

|                                                 |                                                                                             |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|
| 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 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 |
| <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                                                                          |
| EAC conformity                                  | TR CU 012/2011                                                                              |
| UL approval                                     | cULus Listed, General Purpose                                                               |
| CCC approval                                    |                                                                                             |
| Hazardous Location                              | 2020322315002258                                                                            |
| NEPSI approval                                  |                                                                                             |
| NEPSI certificate                               | GYJ16.1393X                                                                                 |
| ANZEx                                           | 18.3018X                                                                                    |
| <b>Ambient conditions</b>                       |                                                                                             |
| Ambient temperature                             | 0 ... 90 °C (32 ... 194 °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                                                                                           |
| <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)  |