

# Inductive sensor

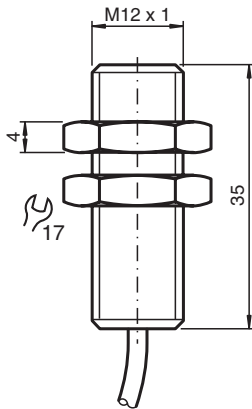
## NJ2-12GM-N-5M



- Comfort series
- 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 $r_{Al}$  |       | 0.4                  |
| 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 ... 2000 Hz  |
| Suitable for 2:1 technology  |       | yes , Reverse polarity protection diode not required |
| Current consumption          |       |  |
| Measuring plate not detected |       | min. 3 mA  |
| Measuring plate detected     |       | $\leq$ 1 mA  |

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

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## Technical Data

| <b>Functional safety related parameters</b>     |   |
|---|---|
| Safety Integrity Level (SIL)                    | SIL 2   |
| MTTF <sub>d</sub>                               | 5887 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 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 Ga                   | IECEX PTB 11.0037X  |
| 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 Ga                   | PTB 00 ATEX 2048 X  |
| 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                                     |   |
| Ordinary Location                               | E87056  |
| Hazardous Location                              | E501628   |
| Control drawing                                 | 116-0452  |
| CSA approval                                    | cCSAus Listed, General Purpose  |
| CCC approval                                    |   |
| Hazardous Location                              | 2020322315002255  |
| NEPSI approval                                  |   |
| NEPSI certificate                               | GYJ16.1393X   |
| ANZEx   | 18.3018X  |
| <b>Ambient conditions</b>                       |   |
| Ambient temperature                             | -25 ... 100 °C (-13 ... 212 °F)   |
| <b>Mechanical specifications</b>                |   |
| Connection type                                 | cable PVC , 5 m   |
| Core cross-section                              | 0.34 mm <sup>2</sup>  |
| Housing material                                | Stainless steel 1.4305 / AISI 303   |
| Sensing face                                    | PBT   |
| Degree of protection                            | IP66 / IP67   |
| Cable   |   |
| Cable diameter                                  | 4.8 mm ± 0.2 mm   |
| Bending radius                                  | > 10 x cable diameter   |
| <b>General information</b>                      |   |
| Use in the hazardous area                       | see instruction manuals   |

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## Connection



## Accessories

|  |               |                                       |
|--|---------------|---------------------------------------|
|  | <b>EXG-12</b> | Quick mounting bracket with dead stop |
|  | <b>BF 12</b>  | Mounting flange, 12 mm                |

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