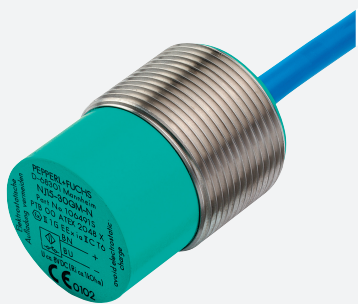


# Inductive sensor

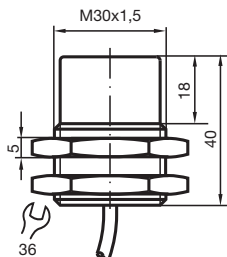
## NJ15-30GM-N



- 15 mm non-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> | 15 mm                               |
| Installation                      |                | non-flush                           |
| Assured operating distance        | s <sub>a</sub> | 0 ... 12.15 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 ... 100 Hz                        |

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

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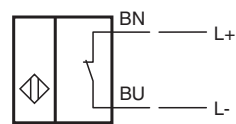
 **PEPPERL+FUCHS**

## Technical Data

|                                                 |   |                                                                                             |
|-------------------------------------------------|---|---------------------------------------------------------------------------------------------|
| Hysteresis                                      | H | 3 %                                                                                         |
| Current consumption                             |   |                                                                                             |
| Measuring plate not detected                    |   | ≥ 3 mA at nominal voltage                                                                   |
| Measuring plate detected                        |   | ≤ 1 mA at nominal voltage                                                                   |
| <b>Functional safety related parameters</b>     |   |                                                                                             |
| MTTF <sub>d</sub>                               |   | 4560 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                                                                              |
| FM approval                                     |   |                                                                                             |
| Control drawing                                 |   | 116-0165                                                                                    |
| UL approval                                     |   |                                                                                             |
| Ordinary Location                               |   | E87056                                                                                      |
| Hazardous Location                              |   | E501628                                                                                     |
| Control drawing                                 |   | 116-0452                                                                                    |
| CSA approval                                    |   | cCSAus Listed, General Purpose                                                              |
| CCC approval                                    |   | CCC approval / marking not required for products rated ≤36 V                                |
| <b>Ambient conditions</b>                       |   |                                                                                             |
| Ambient temperature                             |   | -25 ... 100 °C (-13 ... 212 °F)                                                             |
| <b>Mechanical specifications</b>                |   |                                                                                             |
| Connection type                                 |   | cable                                                                                       |
| Housing material                                |   | Stainless steel 1.4305 / AISI 303                                                           |
| Sensing face                                    |   | PBT                                                                                         |
| Degree of protection                            |   | IP67                                                                                        |
| Cable                                           |   |                                                                                             |
| Cable diameter                                  |   | 6 mm ± 0.2 mm                                                                               |
| Bending radius                                  |   | > 10 x cable diameter                                                                       |
| Material                                        |   | PVC                                                                                         |
| Core cross-section                              |   | 0.75 mm <sup>2</sup>                                                                        |
| Length                                          | L | 2 m                                                                                         |
| <b>General information</b>                      |   |                                                                                             |
| Use in the hazardous area                       |   | see instruction manuals                                                                     |

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Connection



Accessories

|                                                                                   |              |                        |
|-----------------------------------------------------------------------------------|--------------|------------------------|
|  | <b>BF 30</b> | Mounting flange, 30 mm |
|-----------------------------------------------------------------------------------|--------------|------------------------|

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