

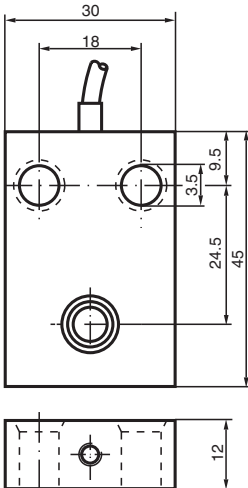
# Inductive sensor NJ6-F-N-5M



- 6 mm flush
- NAMUR output
- Polarity reversal protected
- 5 meter connection cable



## Dimensions



## Technical Data

| General specifications      |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Switching function          |       | Normally closed (NC)                 |
| Output type                 |       | NAMUR                                |
| Rated operating distance    | $s_n$ | 6 mm                                 |
| Installation                |       | flush                                |
| Assured operating distance  | $s_a$ | 0 ... 4.8 mm                         |
| Actual operating distance   | $s_r$ | 5.4 ... 6.6 mm typ.                  |
| Reduction factor $r_{AI}$   |       | 0.4                                  |
| Reduction factor $r_{Cu}$   |       | 0.3                                  |
| 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 ... 5000 Hz                        |
| Hysteresis                  | $H$   | 0 ... 0.3 mm , typ. 5 %              |
| Reverse polarity protection |       | reverse polarity protected           |
| Current consumption         |       |                                      |

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

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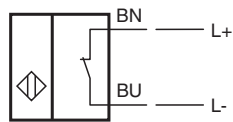
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PEPPERL+FUCHS

## Technical Data

|                                                 |   |                                 |
|-------------------------------------------------|---|---------------------------------|
| Measuring plate not detected                    |   | min. 3 mA                       |
| Measuring plate detected                        |   | ≤ 1 mA                          |
| <b>Functional safety related parameters</b>     |   |                                 |
| MTTF <sub>d</sub>                               |   | 4540 a                          |
| Mission Time (T <sub>M</sub> )                  |   | 20 a                            |
| Diagnostic Coverage (DC)                        |   | 0 %                             |
| <b>Compliance with standards and directives</b> |   |                                 |
| Standard conformity                             |   |                                 |
| Standards                                       |   | EN IEC 60947-5-2                |
| <b>Approvals and certificates</b>               |   |                                 |
| IECEx approval                                  |   |                                 |
| 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 Gb                   |   | PTB 00 ATEX 2032 X              |
| Equipment protection level Da                   |   | PTB 00 ATEX 2032 X              |
| UL approval                                     |   | cULus Listed, General Purpose   |
| 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) |
| Storage temperature                             |   | -40 ... 100 °C (-40 ... 212 °F) |
| <b>Mechanical specifications</b>                |   |                                 |
| Connection type                                 |   | cable                           |
| Housing material                                |   | PBT                             |
| Sensing face                                    |   | PBT                             |
| Degree of protection                            |   | IP67                            |
| Cable                                           |   |                                 |
| Cable diameter                                  |   | 4.8 mm ± 0.2 mm                 |
| Bending radius                                  |   | > 10 x cable diameter           |
| Material                                        |   | PUR                             |
| Core cross section                              |   | 0.34 mm <sup>2</sup>            |
| Length                                          | L | 5 m                             |
| Mass                                            |   | 165 g                           |
| Dimensions                                      |   |                                 |
| Height                                          |   | 30 mm                           |
| Width                                           |   | 45 mm                           |
| Length                                          |   | 12 mm                           |
| <b>General information</b>                      |   |                                 |
| Use in the hazardous area                       |   | see instruction manuals         |

Connection



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## Operation

### Attention!

NAMUR-compliant switch amplifiers can, due to a low current consumption at the recorded measuring plate (0.2 mA ... 1 mA), incorrectly report cable breaks (required in accordance with EN 60947-5-6:2000: 0.4 mA ... 1 mA).