

# Inductive sensor

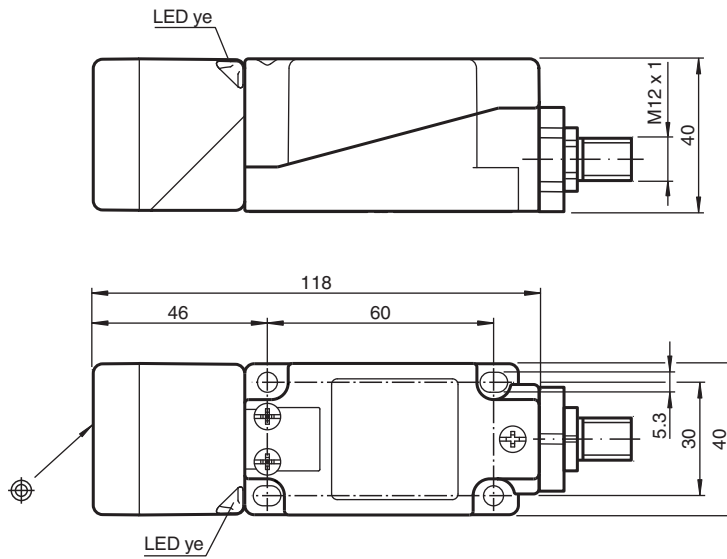
## NBN30-U4K-N0-V1



- Sensor head bidirectional and rotatable
- 30 mm non-flush



### Dimensions



### Technical Data

#### General specifications

|                            |       |                         |
|----------------------------|-------|-------------------------|
| Switching function         |       | Normally closed (NC)    |
| Output type                |       | NAMUR                   |
| Rated operating distance   | $s_n$ | 30 mm                   |
| Installation               |       | non-flush               |
| Assured operating distance | $s_a$ | 0 ... 24.3 mm           |
| Actual operating distance  | $s_r$ | 27 ... 33 mm typ. 30 mm |
| Reduction factor $r_{Al}$  |       | 0.31                    |
| Reduction factor $r_{Cu}$  |       | 0.3                     |
| Reduction factor $r_{304}$ |       | 0.74                    |

Release date: 2023-05-26 Date of issue: 2023-05-26 Filename: 70133138\_eng.pdf

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

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## Technical Data

|   |                |   |
|---|----------------|---|
| Output type                                     |                | 2-wire  |
| <b>Nominal ratings</b>                          |                |   |
| Nominal voltage                                 | U <sub>o</sub> | 8.2 V (R <sub>i</sub> approx. 1 kΩ)   |
| Switching frequency                             | f              | 0 ... 150 Hz  |
| Hysteresis                                      | H              | typ. 5 %  |
| Reverse polarity protection                     |                | yes   |
| Short-circuit protection                        |                | yes   |
| Current consumption                             |                |   |
| Measuring plate not detected                    |                | min. 2.2 mA   |
| Measuring plate detected                        |                | ≤ 1 mA  |
| Switching state indicator                       |                | LED, yellow   |
| <b>Compliance with standards and directives</b> |                |   |
| Standard conformity                             |                |   |
| NAMUR   |                | EN 60947-5-6:2000<br>IEC 60947-5-6:1999   |
| Electromagnetic compatibility                   |                | NE 21:2007  |
| 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 11.0021X  |
| Equipment protection level Gb                   |                | IECEX PTB 11.0021X  |
| Equipment protection level Da                   |                | IECEX PTB 11.0021X  |
| ATEX approval                                   |                |   |
| Equipment protection level Ga                   |                | PTB 00 ATEX 2032 X  |
| Equipment protection level Gb                   |                | PTB 00 ATEX 2032 X  |
| Equipment protection level Da                   |                | PTB 00 ATEX 2032 X  |
| UL approval                                     |                |   |
| Ordinary Location                               |                | E87056  |
| Hazardous Location                              |                | E501628   |
| Control drawing                                 |                | 116-0451  |
| CCC approval                                    |                |   |
| Hazardous Location                              |                | 2020322315002303  |
| NEPSI approval                                  |                |   |
| NEPSI certificate                               |                | GYJ16.1394X   |
| CML approval                                    |                | on request  |
| Marine approval                                 |                | DNVGL TAA00001A5  |
| <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                                 |                | Connector plug  |
| Housing material                                |                | PA/metal  |
| Sensing face                                    |                | PA  |
| Degree of protection                            |                | IP68 / IP69K  |
| Connector                                       |                |   |
| Threading                                       |                | M12 x 1   |
| Number of pins                                  |                | 4   |
| Mass  |                | 225 g   |
| Note  |                | Tightening torque: 1.8 Nm (housing)   |
| <b>General information</b>                      |                |   |
| Use in the hazardous area                       |                | see instruction manuals   |

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**Connection**






**Connection Assignment**



Wire colors in accordance with EN 60947-5-6

- 1 | BN (brown)
- 2 | BU (blue)

**Accessories**

|   |                    |   |
|---|--------------------|---|
|  | <b>V1-W-2M-PUR</b> | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey   |
|  | <b>V1-G-2M-PUR</b> | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
|  | <b>MHW 01</b>      | Modular mounting bracket  |

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