

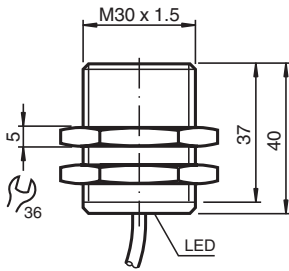
# Inductive sensor NCB10-30GM40-N0



- 10 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- Polarity reversal protected
- Stainless steel housing



## Dimensions



## Technical Data

### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 10 mm                |
| Installation               |       | flush                |
| Assured operating distance | $s_a$ | 0 ... 8.1 mm         |
| Actual operating distance  | $s_r$ | 9 ... 11 mm typ.     |
| Reduction factor $r_{AI}$  |       | 0.35                 |
| Reduction factor $r_{Cu}$  |       | 0.3                  |
| Reduction factor $r_{304}$ |       | 0.75                 |
| Output type                |       | 2-wire               |

### Nominal ratings

|                             |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Nominal voltage             | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Switching frequency         | $f$   | 0 ... 200 Hz                         |
| Hysteresis                  | $H$   | 1 ... 15 % typ. 5 %                  |
| Reverse polarity protection |       | reverse polarity protected           |
| Short-circuit protection    |       | yes                                  |

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

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**PEPPERL+FUCHS**

## Technical Data

|                                                 |  |                                         |
|-------------------------------------------------|--|-----------------------------------------|
| Current consumption                             |  |                                         |
| Measuring plate not detected                    |  | min. 2.2 mA                             |
| Measuring plate detected                        |  | ≤ 1 mA                                  |
| Switching state indicator                       |  | all direction LED, yellow               |
| <b>Functional safety related parameters</b>     |  |                                         |
| Safety Integrity Level (SIL)                    |  | SIL 2                                   |
| MTTF <sub>d</sub>                               |  | 1870 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 |
| Electromagnetic compatibility                   |  | NE 21:2007                              |
| Standards                                       |  | EN IEC 60947-5-2                        |
| <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 Dc (tc)              |  | IECEx TUR 21.0018X                      |
| 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                      |
| Equipment protection level Dc (tc)              |  | TÜV 20 ATEX 8524 X                      |
| UL approval                                     |  |                                         |
| Ordinary Location                               |  | E87056                                  |
| Hazardous Location                              |  | E501628                                 |
| Control drawing                                 |  | 116-0452                                |
| CCC approval                                    |  |                                         |
| Hazardous Location                              |  | 2020322315002255<br>2024322315005860    |
| CML approval                                    |  | on request                              |
| ANZEx                                           |  | 18.3018X                                |
| KCC approval                                    |  |                                         |
| Hazardous Location                              |  | 09-AV4BO-0226                           |
| 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                                 |  | cable                                   |
| Housing material                                |  | Stainless steel 1.4305 / AISI 303       |
| Sensing face                                    |  | PBT                                     |
| Degree of protection                            |  | IP66 / IP67                             |
| Cable                                           |  |                                         |
| Wire end ferrules                               |  | yes                                     |
| Cable diameter                                  |  | 6 mm ± 0.2 mm                           |
| Bending radius                                  |  | > 10 x cable diameter                   |
| Material                                        |  | PVC                                     |
| Color                                           |  | blue                                    |

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Technical Data

|                           |   |                         |
|---------------------------|---|-------------------------|
| Number of cores           |   | 2                       |
| Core cross section        |   | 0.75 mm²                |
| Length                    | L | 2 m                     |
| Mass                      |   | 207 g                   |
| Dimensions                |   |                         |
| Length                    |   | 40 mm                   |
| Diameter                  |   | 30 mm                   |
| General information       |   |                         |
| Use in the hazardous area |   | see instruction manuals |

Connection

