

## Inductive sensor

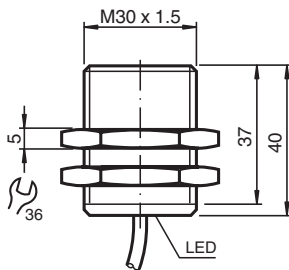
### NCB10-30GM40-N0-10M-OG



- 10 mm flush
- NAMUR output
- Stainless steel housing
- Polarity reversal protected
- Shielded PUR cable for oil and gas sector



## 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 $r_{AI}$  |       | 0.32                 |
| Reduction factor $r_{Cu}$  |       | 0.32                 |
| Reduction factor $r_{304}$ |       | 0.72                 |
| Output type                |       | 3-wire               |

### Nominal ratings

|                             |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Nominal voltage             | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Switching frequency         | $f$   | 0 ... 650 Hz                         |
| Hysteresis                  | $H$   | 1 ... 10 % 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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## Technical Data

|                                                 |                                                      |                                            |
|-------------------------------------------------|------------------------------------------------------|--------------------------------------------|
| Suitable for 2:1 technology                     | yes , Reverse polarity protection diode not required |                                            |
| Current consumption                             |                                                      |                                            |
| Measuring plate not detected                    |                                                      | min. 3 mA                                  |
| Measuring plate detected                        |                                                      | ≤ 1 mA                                     |
| Switching state indicator                       |                                                      | LED, yellow                                |
| <b>Functional safety related parameters</b>     |                                                      |                                            |
| 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    |
| 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 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                         |
| UL approval                                     |                                                      |                                            |
| Ordinary Location                               |                                                      | E87056                                     |
| Hazardous Location                              |                                                      | E501628                                    |
| Control drawing                                 |                                                      | 116-0452                                   |
| CML approval                                    |                                                      | on request                                 |
| ANZEx                                           |                                                      | 18.3018X                                   |
| <b>Ambient conditions</b>                       |                                                      |                                            |
| Ambient temperature                             |                                                      | -25 ... 80 °C (-13 ... 176 °F)             |
| Storage temperature                             |                                                      | -40 ... 80 °C (-40 ... 176 °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                                  |                                                      | 6.7 mm ± 0.3 mm                            |
| Bending radius                                  |                                                      | > 7.5 x cable diameter                     |
| Material                                        |                                                      | PUR                                        |
| Color                                           |                                                      | blue                                       |
| Number of cores                                 |                                                      | 2                                          |
| Core cross section                              |                                                      | 0.5 mm <sup>2</sup>                        |
| Length                                          | L                                                    | 10 m                                       |
| Dimensions                                      |                                                      |                                            |
| Length                                          |                                                      | 40 mm                                      |
| Diameter                                        |                                                      | 30 mm                                      |
| Note                                            |                                                      | The shield is not connected to the sensor. |
| <b>General information</b>                      |                                                      |                                            |
| Scope of delivery                               |                                                      | 2 self locking nuts in scope of delivery   |

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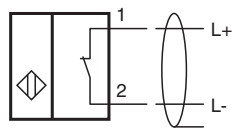
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Technical Data

|                           |                         |
|---------------------------|-------------------------|
| Use in the hazardous area | see instruction manuals |
|---------------------------|-------------------------|

Connection



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