

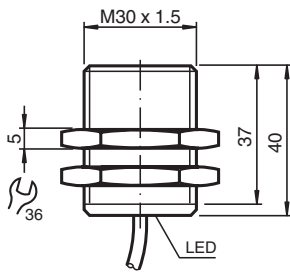
# Inductive sensor NCB15-30GM40-N0-5M



- 15 mm quasi flush
- NAMUR output
- Stainless steel housing
- Polarity reversal protected
- 5 meter connection cable



## Dimensions



## Technical Data

### General specifications

|                            |       |                       |
|----------------------------|-------|-----------------------|
| Switching function         |       | Normally closed (NC)  |
| Output type                |       | NAMUR                 |
| Rated operating distance   | $s_n$ | 15 mm                 |
| Installation               |       | quasi flush           |
| Assured operating distance | $s_a$ | 0 ... 12.15 mm        |
| Actual operating distance  | $s_r$ | 13.5 ... 16.5 mm typ. |
| Reduction factor $r_{AI}$  |       | 0.33                  |
| Reduction factor $r_{Cu}$  |       | 0.29                  |
| Reduction factor $r_{304}$ |       | 0.76                  |
| Output type                |       | 2-wire                |

### Nominal ratings

|                             |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Nominal voltage             | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Switching frequency         | $f$   | 0 ... 450 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".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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## Technical Data

|                                                 |   |                                         |
|-------------------------------------------------|---|-----------------------------------------|
| Current consumption                             |   |                                         |
| Measuring plate not detected                    |   | min. 2.2 mA                             |
| Measuring plate detected                        |   | ≤ 1 mA                                  |
| Switching state indicator                       |   | LED, yellow                             |
| <b>Functional safety related parameters</b>     |   |                                         |
| Safety Integrity Level (SIL)                    |   | SIL 2                                   |
| MTTF <sub>d</sub>                               |   | 3068 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                              |   | 2020322315002258<br>2024322315005858    |
| CML approval                                    |   | on request                              |
| ANZEx                                           |   | 18.3018X                                |
| <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                                    |
| Number of cores                                 |   | 2                                       |
| Core cross section                              |   | 0.75 mm <sup>2</sup>                    |
| Length                                          | L | 5 m                                     |

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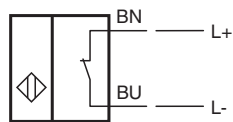
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Pepperl+Fuchs Group  
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Technical Data

|                           |                         |
|---------------------------|-------------------------|
| Mass                      | 364 g                   |
| Dimensions                |                         |
| Length                    | 40 mm                   |
| Diameter                  | 30 mm                   |
| General information       |                         |
| Scope of delivery         | Supplied with 2 nuts    |
| Use in the hazardous area | see instruction manuals |

Connection Assignment



Mounting

Installation conditions

