

# Inductive sensor

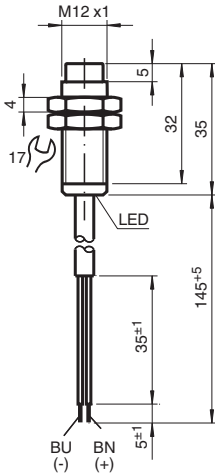
## NCN4-12GM35-N0-Y191065



- 4 mm non-flush
- Stainless steel housing
- NAMUR output
- Polarity reversal protected



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 4 mm                 |
| Installation               |       | non-flush            |
| Assured operating distance | $s_a$ | 0 ... 3.24 mm        |
| Actual operating distance  | $s_r$ | 3.6 ... 4.4 mm typ.  |
| Reduction factor $r_{Al}$  |       | 0.37                 |
| Reduction factor $r_{Cu}$  |       | 0.36                 |
| Reduction factor $r_{304}$ |       | 0.74                 |
| Output type                |       | 2-wire               |

#### Nominal ratings

|                             |       |                                      |
|-----------------------------|-------|--------------------------------------|
| Nominal voltage             | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ ) |
| Switching frequency         | f     | 0 ... 800 Hz                         |
| Hysteresis                  | H     | 1 ... 10 % typ. 5 %                  |
| Reverse polarity protection |       | reverse polarity protected           |
| Short-circuit protection    |       | yes                                  |

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|   |   |   |
|---|---|---|
| Current consumption                             |   |   |
| Measuring plate not detected                    |   | min. 3 mA                               |
| Measuring plate detected                        |   | ≤ 1 mA                                  |
| Switching state indicator                       |   | all direction LED, yellow               |
| <b>Functional safety related parameters</b>     |   |   |
| MTTF <sub>d</sub>                               |   | 2520 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                              |   | 2024322315005860                        |
| CML approval                                    |   | on request                              |
| <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                            |   | IP67                                    |
| Cable   |   |   |
| Wire end ferrules                               |   | yes                                     |
| Cable diameter                                  |   | 4.6 mm ± 0.2 mm                         |
| Bending radius                                  |   | > 12 x cable diameter                   |
| Material  |   | PVC                                     |
| Color   |   | blue                                    |
| Number of cores                                 |   | 2                                       |
| Core cross section                              |   | 0.34 mm <sup>2</sup>                    |
| Length  | L | 145 mm                                  |
| Mass  |   | 25 g                                    |
| Dimensions                                      |   |   |
| Length  |   | 35 mm                                   |

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|          |       |
|----------|-------|
| Diameter | 12 mm |
|----------|-------|

### General information

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

## Connection Assignment

