

# Inductive sensor

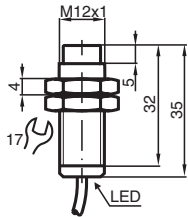
## NCN4-12GM35-N0



- 4 mm non-flush
- Usable up to SIL 2 acc. to IEC 61508
- 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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## Technical Data

|   |  |   |
|---|--|---|
| 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>     |  |   |
| Safety Integrity Level (SIL)                    |  | SIL 2                                   |
| 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                              |  | 2020322315002255<br>2024322315005860    |
| CML approval                                    |  | on request                              |
| ANZEx   |  | 18.3018X                                |
| KCC approval                                    |  |   |
| Hazardous Location                              |  | 09-AV4BO-0225                           |
| <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                                  |  | 4.6 mm ± 0.2 mm                         |
| Bending radius                                  |  | > 12 x cable diameter                   |
| Material  |  | PVC                                     |
| Color   |  | blue                                    |
| Number of cores                                 |  | 2                                       |

## Technical Data

|                            |   |  |
|----------------------------|---|--|
| Core cross section         |   | 0.34 mm <sup>2</sup>                     |
| Length                     | L | 2 m                                      |
| Dimensions                 |   |  |
| Length                     |   | 35 mm                                    |
| Diameter                   |   | 12 mm                                    |
| <b>General information</b> |   |  |
| Scope of delivery          |   | 2 self locking nuts in scope of delivery |
| Use in the hazardous area  |   | see instruction manuals                  |

## Connection Assignment

