



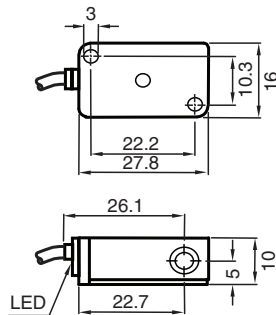
# Inductive sensor

## NCB2-V3-N0-Y244943

- 2 mm flush
- Usable up to SIL 2 acc. to IEC 61508



### Dimensions



### Technical Data

#### General specifications

|                            |       |                      |
|----------------------------|-------|----------------------|
| Switching function         |       | Normally closed (NC) |
| Output type                |       | NAMUR                |
| Rated operating distance   | $s_n$ | 2 mm                 |
| Installation               |       | flush                |
| Assured operating distance | $s_a$ | 0 ... 1.62 mm        |
| Reduction factor $r_{AI}$  |       | 0.3                  |

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## Technical Data

|   |       |   |
|---|-------|---|
| Reduction factor $r_{Cu}$                       |       | 0.2   |
| Reduction factor $r_{304}$                      |       | 0.7   |
| Output type                                     |       | 2-wire  |
| <b>Nominal ratings</b>                          |       |   |
| Nominal voltage                                 | $U_o$ | 8.2 V ( $R_i$ approx. 1 k $\Omega$ )                                  |
| Switching frequency                             | f     | 0 ... 2000 Hz   |
| Hysteresis                                      | H     | typ. 3 %  |
| Current consumption                             |       |   |
| Measuring plate not detected                    |       | $\geq 3$ mA   |
| Measuring plate detected                        |       | $\leq 1$ mA   |
| Switching state indicator                       |       | LED, yellow   |
| <b>Functional safety related parameters</b>     |       |   |
| Safety Integrity Level (SIL)                    |       | SIL 2   |
| MTTF <sub>d</sub>                               |       | 2180 a  |
| Mission Time ( $T_M$ )                          |       | 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 11.0021X  |
| Equipment protection level Gb                   |       | IECEX PTB 11.0021X  |
| Equipment protection level Da                   |       | IECEX PTB 11.0021X  |
| Equipment protection level Mb                   |       | IECEX PTB 11.0021X  |
| ATEX approval                                   |       |   |
| Equipment protection level Ga                   |       | PTB 00 ATEX 2032 X  |
| Equipment protection level Gb                   |       | PTB 00 ATEX 2032 X  |
| Equipment protection level Da                   |       | PTB 00 ATEX 2032 X  |
| UL approval                                     |       |   |
| Ordinary Location                               |       | E87056  |
| Hazardous Location                              |       | E501628   |
| Control drawing                                 |       | 116-0451  |
| CML approval                                    |       | on request  |
| <b>Ambient conditions</b>                       |       |   |
| Ambient temperature                             |       | -25 ... 100 °C (-13 ... 212 °F)                                       |
| <b>Mechanical specifications</b>                |       |   |
| Connection type                                 |       | cable PVC , 130 mm<br>Insulated wire end ferrule with 8 mm pin length |
| Housing material                                |       | PBT   |
| Sensing face                                    |       | PBT   |
| Degree of protection                            |       | IP67  |
| Cable   |       |   |
| Cable diameter                                  |       | 2.6 mm $\pm$ 0.2 mm   |
| Bending radius                                  |       | > 10 x cable diameter   |
| Material  |       | PVC   |
| Core cross section                              |       | 0.14 mm <sup>2</sup>  |
| Length  | L     | 130 mm  |
| Tightening torque, fastening screws             |       | $\leq 0.4$ Nm   |
| Dimensions                                      |       |   |
| Height  |       | 10.2 mm   |

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|                            |                         |
|----------------------------|-------------------------|
| Width                      | 27.8 mm                 |
| Length                     | 16 mm                   |
| <b>General information</b> |                         |
| Use in the hazardous area  | see instruction manuals |

## Connection

