

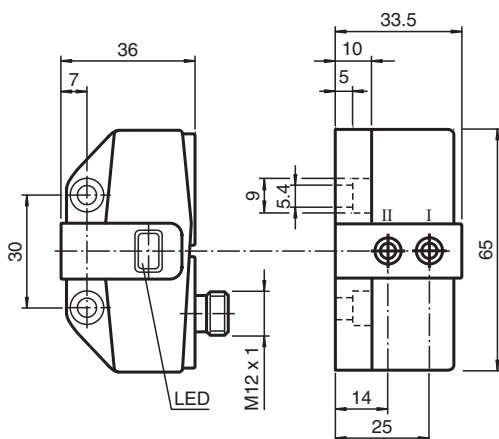
Inductive sensor

NCN3-F31-N4-V1-Y223958

- Direct mounting on standard actuators
- Fixed setting
- Usable up to SIL 2 acc. to IEC 61508
- ATEX & IECEx certifications



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Switching function | | 2 x normally closed (NC) |
| Output type | | NAMUR |
| Rated operating distance | s_n | 3 mm |
| Installation | | flush mountable |
| Assured operating distance | s_a | 0 ... 2.4 mm |
| Actual operating distance | s_r | 2.7 ... 3.3 mm typ. |
| Actuating element | | Stainless steel 1.4305 / AISI 303 8.5 mm x 8.5 mm x 0.5 mm |
| Reduction factor r_{Al} | | 0.5 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 1 |
| Reduction factor r_{317} | | 1.3 |
| Reduction factor r_{Brass} | | 0.6 |
| Output type | | 2-wire |
| Nominal ratings | | |
| Nominal voltage | U_o | 8.2 V (R_i approx. 1 k Ω) |

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Technical Data

| | | |
|---|----------------|--|
| Switching frequency | f | 0 ... 3 kHz |
| Hysteresis | H | typ. 5 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | yes |
| 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 |
| Time delay before availability | t _v | ≤ 1.1 ms |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| Safety Integrity Level (SIL) | | SIL 2 |
| MTTF _d | | 1470 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| NAMUR | | EN 60947-5-6:2000 IEC 60947-5-6:1999 |
| Electromagnetic compatibility | | NE 21:2007 |
| Standards | | EN IEC 60947-5-2 |
| Approvals and certificates | | |
| IECEX approval | | |
| Equipment protection level Ga | | IECEX TUN 17.0021X |
| Equipment protection level Gb | | IECEX TUN 17.0021X |
| Equipment protection level Da | | IECEX TUN 17.0021X |
| Equipment protection level Mb | | IECEX TUN 17.0021X |
| ATEX approval | | |
| Equipment protection level Ga | | TÜV 99 ATEX 1479 X |
| Equipment protection level Gb | | TÜV 99 ATEX 1479 X |
| Equipment protection level Da | | TÜV 99 ATEX 1479 X |
| UL approval | | |
| | | cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 8.2 V DC |
| CCC approval | | |
| Hazardous Location | | 2020322315002262 |
| NEPSI approval | | |
| NEPSI certificate | | GYJ19.1410X |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 100 °C (-13 ... 212 °F) |
| Storage temperature | | -40 ... 100 °C (-40 ... 212 °F) |
| Mechanical specifications | | |
| Connection (system side) | | 4-pin, M12 x 1 connector |
| Connector housing | | metal |
| Housing material | | PBT |
| Sensing face | | PBT |
| Degree of protection | | IP67 |
| Tightening torque, fastening screws | | ≤ 5 Nm |
| Dimensions | | |
| Height | | 33.5 mm |
| Width | | 65 mm |
| Length | | 36 mm |

Technical Data

General information

Use in the hazardous area

see instruction manuals

Connection

