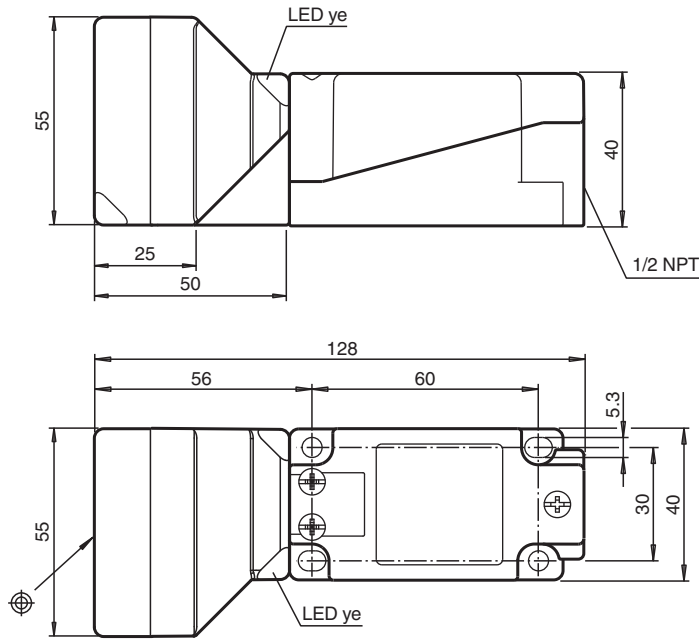


Inductive sensor NBN40-U4L-UU

- Sensor head bidirectional and rotatable
- NO/NC selectable
- Comfort series
- Metal base with ground connection



Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|------------------------------|
| Switching function | | Normally open/closed (NO/NC) |
| Output type | | Two-wire |
| Rated operating distance | s_n | 40 mm |
| Installation | | non-flush |
| Output polarity | | AC/DC |
| Assured operating distance | s_a | 0 ... 32.4 mm |
| Actual operating distance | s_r | 36 ... 44 mm typ. 40 mm |
| Reduction factor r_{Al} | | 0.37 |
| Reduction factor r_{Cu} | | 0.3 |
| Reduction factor r_{304} | | 0.73 |
| Reduction factor r_{Fe} | | 1 |

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Technical Data

| | | |
|---|------------------|---|
| Reduction factor r_{Brass} | | 0.4 |
| Output type | | 2-wire |
| Nominal ratings | | |
| Switching frequency | f | 0 ... 25 Hz |
| Hysteresis | H | 1 ... 10 % typ. 5 % |
| Reverse polarity protection | | reverse polarity tolerant |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 5 V (typ. 2V) DC operation ≤ 8 V (typ. 3 V) AC operation |
| Momentary current (20 ms, 0.1 Hz) | | 0 ... 3000 mA |
| Operating current | I_L | 5 ... 500 mA |
| Rated operating current | I_e | 500 mA 50/60 Hz |
| Lowest operating current | I_m | 5 mA |
| Off-state current | I_r | ≤ 1.5 mA |
| Usage category | | AC12 , AC140 , DC12 , DC13 |
| Time delay before availability | t_v | ≤ 300 ms |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |
| Error indicator | | flashes when overcurrent |
| Functional safety related parameters | | |
| MTTF _d | | 550 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Electrical specifications | | |
| Rated operating voltage | U_e | 24 ... 250 V DC / 24 ... 230 V AC |
| Operating voltage | U_B | 20 ... 275 V DC / 20 ... 253 V AC |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN IEC 60947-5-2 |
| Approvals and certificates | | |
| Protection class | | I |
| Rated insulation voltage | U_i | 230 V |
| Rated impulse withstand voltage | U_{imp} | 2.5 kV |
| UL approval | | cULus Listed, General Purpose "For use in NFPA 79 Applications only" For overcurrent protection, install a fuse with a rated current of max. 3 A and at least 300 V AC/DC |
| CCC approval | | Ue 75VDC - 250VDC Ue 75VAC - 230VAC |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 85 °C (-13 ... 185 °F) |
| Storage temperature | | -25 ... 85 °C (-13 ... 185 °F) |
| Pollution degree | | 3 |
| Mechanical specifications | | |
| Connection type | | terminal compartment |
| Information for connection | | A maximum of two conductors with the same core cross section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 % |
| Core cross section | | up to 2.5 mm ² |
| Minimum core cross-section | | without wire end ferrules 0.5 mm ² , with connector sleeves 0.34 mm ² |
| Maximum core cross-section | | without wire end ferrules 2.5 mm ² , with connector sleeves 1.5 mm ² |
| Housing material | | PA 6.6 / metal |
| Sensing face | | PA 6.6 |
| Housing base | | metal / class I equipment with ground connection |
| Degree of protection | | IP67 |
| Mass | | 406 g |

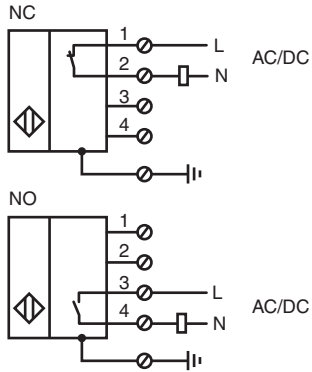
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Technical Data

Dimensions

| | |
|--------|-------------------------------------|
| Height | 55 mm |
| Width | 55 mm |
| Length | 128 mm |
| Note | Tightening torque: 1.8 Nm (housing) |

Connection



Connection

Note

The sensor is designed for individual operation. A series or parallel connection of sensors is not permissible.