



Model Number

NBN40-U4L-Z2

Features

- Basic series
- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 2-wire DC
- 2 LEDs indicator for 360° visibility

Accessories

MHW 01

Modular mounting bracket

Technical Data

General specifications

| | | | |
|----------------------------|-------|-------------------------|-------|
| Switching element function | | DC | NO/NC |
| Rated operating distance | s_n | 40 mm | |
| Installation | | non-flush | |
| Output polarity | | DC | |
| Assured operating distance | s_a | 0 ... 32.4 mm | |
| Actual operating distance | s_r | 36 ... 44 mm typ. 40 mm | |
| Reduction factor r_{AI} | | 0.39 | |
| Reduction factor r_{Cu} | | 0.37 | |
| Reduction factor r_{304} | | 0.76 | |

Nominal ratings

| | | |
|---|-----------|---------------------------|
| Operating voltage | U_B | 5 ... 60 V DC |
| Switching frequency | f | 0 ... 100 Hz |
| Hysteresis | H | 1 ... 10 typ. 5 % |
| Reverse polarity protection | | reverse polarity tolerant |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 5 V |
| Voltage drop at I_L | | ... 5 V |
| Voltage drop $I_L = 100$ mA, switching element on U_d | | |
| Rated insulation voltage | U_{BIS} | 60 V |
| Operating current | I_L | 2 ... 200 mA |
| Off-state current | I_r | 0 ... 1 mA typ. 0.7 mA |
| Switching state indicator | | 2 LED, yellow |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 1170 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |

Mechanical specifications

| | |
|----------------------------|--|
| Connection type | screw terminals |
| 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 ferrule 0.5 mm ² , with connector sleeves 0.34 mm ² |
| Maximum core cross-section | without wire end ferrule 2.5 mm ² , with connector sleeves 1.5 mm ² |
| Housing material | PA/metal |
| Sensing face | PA |
| Housing base | metal |
| Degree of protection | IP68 / IP69K |
| Mass | 225 g |
| Note | Tightening torque: 1.8 Nm (housing) |

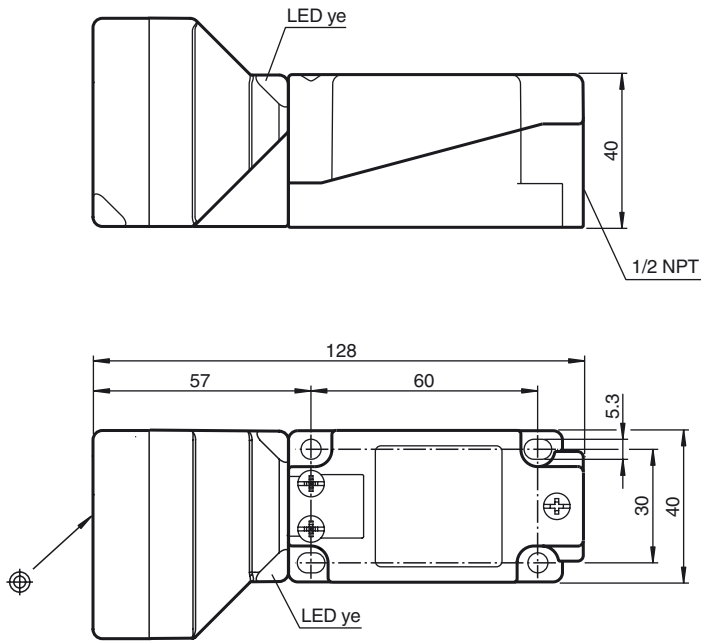
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|---------------------------------|--------------------------------|
| Protection class | II |
| Rated insulation voltage | U_i 60 V |
| Rated impulse withstand voltage | U_{imp} 800 V |
| UL approval | cULus Listed, General Purpose |
| CSA approval | cCSAus Listed, General Purpose |

Dimensions



Electrical Connection

