



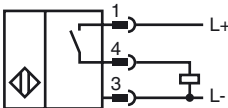
Model Number

NRN10-12GS40-E2-V1

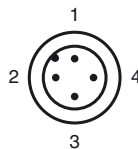
Features

- Reduction factor = 1
- 10 mm non-flush
- Magnetic field resistant
- Stainless steel housing

Connection



Pinout



Wire colors in accordance with EN 60947-5-2

| | | |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue) |
| 4 | BK | (black) |

Accessories

BF 12

Mounting flange, 12 mm

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

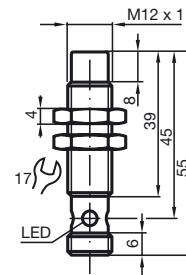
V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|---------------|
| Switching element function | PNP | NO |
| Rated operating distance | s_n | 10 mm |
| Installation | | non-flush |
| Output polarity | | switched high |
| Assured operating distance | s_a | 0 ... 8.1 mm |
| Reduction factor r_{AI} | | 1 |
| Reduction factor r_{Cu} | | 1 |
| Reduction factor r_{304} | | 1 |
| Reduction factor r_{317} | | 1 |

Nominal ratings

| | | |
|-----------------------------------|-----------|--|
| Operating voltage | U_B | 10 ... 30 V |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | typ. 5 % |
| Reverse polarity protected | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 V |
| Rated insulation voltage | U_{BIS} | 60 V |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. 0.1 μ A at 25 °C |
| No-load supply current | I_0 | ≤ 13 mA |
| Constant magnetic field | B | 200 mT |
| Alternating magnetic field | B | 200 mT |
| Indication of the switching state | | Multihole-LED, yellow |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 1663 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|---------------------------------|
| Ambient temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Storage temperature | -40 ... 100 °C (-40 ... 212 °F) |

Mechanical specifications

| | |
|-------------------|-----------------------------------|
| Connection type | Device connector M12 x 1, 4-pin |
| Housing material | Stainless steel 1.4305 / AISI 303 |
| Sensing face | Crastin (PBTB) |
| Protection degree | IP67 |
| Mass | 23 g |

General information

| | |
|-------------------|--|
| Scope of delivery | 2 self locking nuts in scope of delivery |
|-------------------|--|

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 |
| Design-impulse-voltage withstand | U_{imp} 800 V |
| UL approval | cULus Listed, General Purpose |
| CSA approval | cCSAus Listed, General Purpose |
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |