



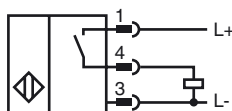
Model Number

NBN4-12GM40-E2-T-V1

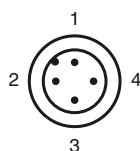
Features

- 4 mm not embeddable
- Short version
- Extended temperature range

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

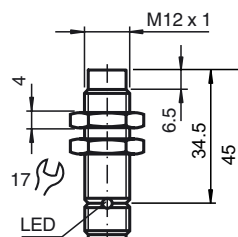
V1-W

4-pin, M12 female field-attachable connector

V1-G

4-pin, M12 female field-attachable connector

Dimensions



Technical Data

General specifications

| | | |
|------------------------------|---|---------------|
| Switching element function | PNP | NO |
| Rated operating distance | s_n | 4 mm |
| Installation | not embeddable | |
| Output polarity | DC | |
| Assured operating distance | s_a | 0 ... 3.24 mm |
| Actuating element | structural steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm | |
| Reduction factor r_{Al} | 0.5 | |
| Reduction factor r_{Cu} | 0.4 | |
| Reduction factor r_{304} | 0.8 | |
| Reduction factor r_{Brass} | 0.5 | |

Nominal ratings

| | | |
|-----------------------------------|---------------------------|------------------|
| Installation conditions | | |
| A | 8 mm | |
| B | 9 mm | |
| C | 8 mm | |
| F | 27 mm | |
| Operating voltage | U_B | 10 ... 30 V |
| Switching frequency | f | 0 ... 800 Hz |
| Hysteresis | H | 0.03 ... 0.88 mm |
| Reverse polarity protected | yes | |
| Short-circuit protection | yes | |
| Overload resistance | yes | |
| Wire breakage protection | yes | |
| Inductive overvoltage protection | yes | |
| Surge suppression | yes | |
| Ripple | 10 % | |
| Voltage drop | U_d | ≤ 2.5 V |
| Repeat accuracy | 0.2 mm | |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | ≤ 0.01 mA |
| No-load supply current | I_0 | ≤ 7 mA |
| Indication of the switching state | all direction LED, yellow | |

Functional safety related parameters

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

Ambient conditions

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

Mechanical specifications

| | |
|-------------------|--------------------------|
| Connection type | connector M12 x 1, 4-pin |
| Housing material | brass, nickel-plated |
| Sensing face | PBT |
| Protection degree | IP67 |
| Mass | 12 g |

Compliance with standards and directives

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

Approvals and certificates

| | |
|--------------|--|
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |
|--------------|--|