



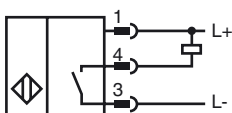
Model Number

NEB6-12GM50-E0-V1

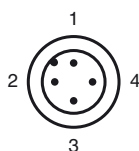
Features

- Increased operating distance
- 6 mm embeddable

Connection



Pinout



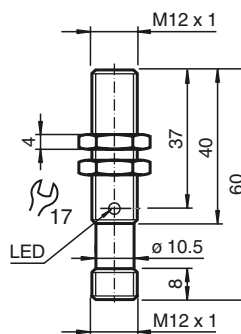
Wire colors in accordance with EN 60947-5-2

| | | |
|---|----|---------|
| 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 | NPN | NO |
| Rated operating distance | s_n | 6 mm |
| Installation | | quasi embedd. |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 4.8 mm |
| Actuating element | | structural steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm |
| Reduction factor r_{Al} | | 0.28 |
| Reduction factor r_{Cu} | | 0.2 |
| Reduction factor r_{304} | | 0.7 |
| Reduction factor r_{Brass} | | 0.35 |

Nominal ratings

| | |
|-----------------------------------|--|
| Installation conditions | |
| A | in steel 1.0037 (St37): 2.4 mm in other metal: 1.2 mm |
| B | 12 mm |
| C | 18 mm |
| F | 24 mm |
| Operating voltage | U_B 10 ... 30 V DC |
| Switching frequency | f 0 ... 800 Hz |
| Hysteresis | H 0.06 ... 1.2 mm |
| Reverse polarity protected | yes |
| Short-circuit protection | pulsing |
| Overload resistance | yes |
| Wire breakage protection | yes |
| Surge suppression | yes |
| Ripple | 10 % |
| Voltage drop | U_d ≤ 2 V |
| Repeat accuracy | 0.3 mm |
| Operating current | I_L 0 ... 200 mA, above 70 °C (158 °F) ≤ 150 mA |
| Off-state current | I_r ≤ 10 μ A |
| No-load supply current | I_0 ≤ 15 mA |
| Indication of the switching state | LED, yellow |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1740 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

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

Mechanical specifications

| | |
|-------------------|---------------------------------|
| Connection type | Device connector M12 x 1, 4-pin |
| Housing material | brass, nickel-plated |
| Sensing face | PBT |
| Protection degree | IP67 |
| Mass | 20 g |

Compliance with standards and directives

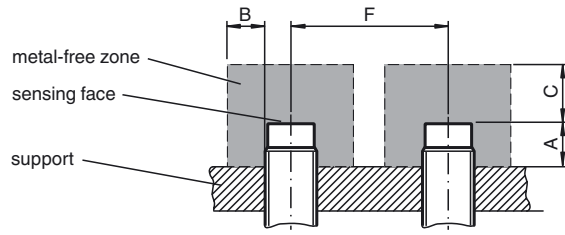
| | |
|----------------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus 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. |

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Installation conditions



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