



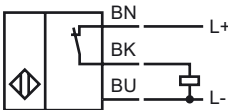
Model Number

NBB4-12GM50-E3

Features

- Basic series
- 4 mm embeddable
- Increased operating distance

Connection



Accessories

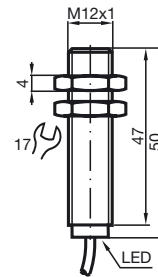
BF 12

Mounting flange, 12 mm

EXG-12

Quick mounting bracket with dead stop

Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|---------------|
| Switching element function | PNP | NC |
| Rated operating distance | s_n | 4 mm |
| Installation | | embeddable |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 3.24 mm |
| Reduction factor r_{AI} | | 0.45 |
| Reduction factor r_{Cu} | | 0.35 |
| Reduction factor r_{303} | | 0.7 |

Nominal ratings

| | | |
|-----------------------------------|-------|--|
| Operating voltage | U_B | 10 ... 30 V |
| Switching frequency | f | 0 ... 800 Hz |
| Hysteresis | H | typ. 5% |
| Reverse polarity protected | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 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 | ≤ 15 mA |
| Indication of the switching state | | LED, yellow |

Functional safety related parameters

| | |
|--------------------------------|-------|
| MTTF _d | 990 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--------------------------------|

Mechanical specifications

| | |
|--------------------|----------------------|
| Connection type | cable PVC , 2 m |
| Core cross-section | 0.14 mm ² |
| Housing material | brass, nickel-plated |
| Sensing face | PBT |
| Protection degree | IP67 |

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

| | |
|--------------|--|
| 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. |