



Model Number

NBN12-18GM50-EI

Features

- 12 mm non-flush
- Extended temperature range -40 ... +85 °C
- Digital current output

Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Output type | | Digital current output |
| Rated operating distance | s_n | 12 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 9.72 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm |
| Reduction factor r_{Al} | | 0.45 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 0.7 |
| Reduction factor r_{Brass} | | 0.5 |
| Output type | | 3-wire |

Nominal ratings

| | | |
|--------------------------------|-------|----------------------------|
| Operating voltage | U_B | 9 ... 30 V DC |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | 2 ... 15 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | yes |
| Temperature drift | | ≤ 10 % |
| Time delay before availability | t_v | ≤ 5 ms |
| Load resistor | | 100 ... 250 Ohm |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | | |
|--------------------------------|--|--------|
| MTTF _d | | 1601 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |

Digital output

| | | |
|-------------|--|---|
| Output type | | object detected: 10 mA ± 1 mA object not detected: 5 mA ± 1 mA |
|-------------|--|---|

Ambient conditions

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

Mechanical specifications

| | | |
|----------------------|--|--------------------------|
| Connection type | | cable PUR , 2 m |
| Core cross-section | | 3 x 0.34 mm ² |
| Housing material | | brass, nickel-plated |
| Sensing face | | PBT |
| Degree of protection | | IP68 / IP69K |

General information

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

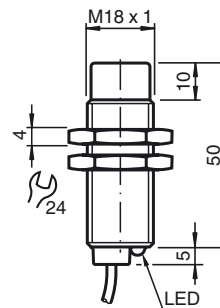
Compliance with standards and directives

| | | |
|---------------------|--|---|
| Standard conformity | | Standards |
| | | EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 |

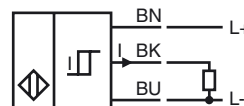
Approvals and certificates

| | | |
|-------------|--|---|
| UL approval | | cULus Listed, General Purpose, Class 2 Power Source |
|-------------|--|---|

Dimensions

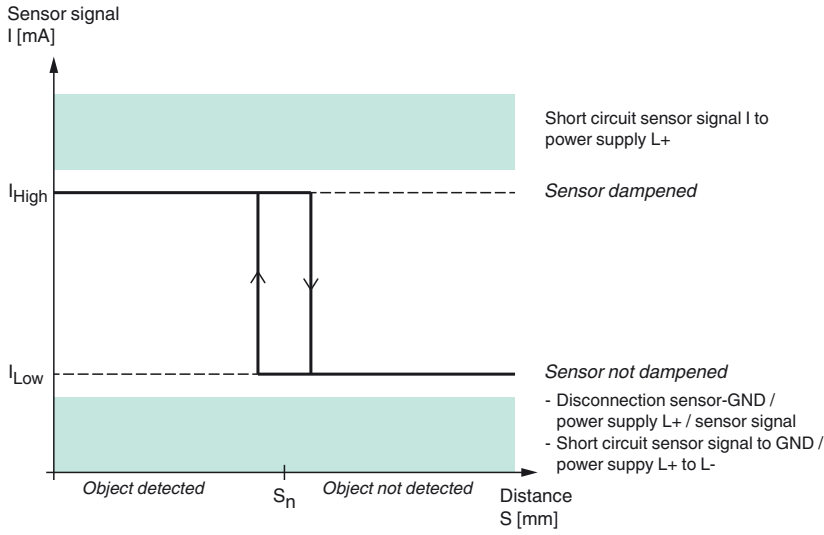


Electrical Connection



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Characteristic Curves



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