



Model Number

NBN8-18GM50-E2-V1

Features

- 8 mm non-flush
- Extended temperature range

Accessories

BF 18

Mounting flange, 18 mm

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications

| | | | |
|----------------------------|-------|--|---|
| Switching element function | | PNP | NO |
| Rated operating distance | s_n | 8 mm | |
| Installation | | non-flush | |
| Output polarity | | DC | |
| Assured operating distance | s_a | 0 ... 6.48 mm (-25 ... 70 °C (-13 ... 158 °F)) | 0 ... 6.08 mm (-40 ... -25 °C (-40 ... -13 °F)) |
| Reduction factor r_{Al} | | 0.5 | |
| Reduction factor r_{Cu} | | 0.4 | |
| Reduction factor r_{304} | | 0.7 | |

Nominal ratings

| | | |
|-----------------------------|-------|-----------------------------------|
| Operating voltage | U_B | 10 ... 30 V |
| Switching frequency | f | 0 ... 500 Hz |
| Hysteresis | H | typ. 5% |
| Reverse polarity protection | | 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 μA at 25 °C |
| No-load supply current | I_0 | ≤ 18 mA |
| Switching state indicator | | Multihole-LED, yellow |

Functional safety related parameters

| | |
|--------------------------------|--------|
| MTTF _d | 1190 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -40 ... 70 °C (-40 ... 158 °F) |
|---------------------|--------------------------------|

Mechanical specifications

| | |
|----------------------|--------------------------|
| Connection type | Connector M12 x 1, 4-pin |
| Housing material | brass, nickel-plated |
| Sensing face | PBT |
| Degree of protection | IP67 |

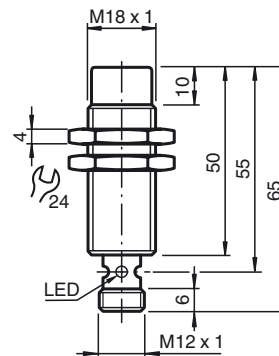
Compliance with standards and directives

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

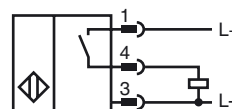
Approvals and certificates

| | |
|----------------|--|
| EAC conformity | TR CU 020/2011 |
| UL approval | cULus Listed, General Purpose |
| CSA approval | cCSAus Listed, General Purpose |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

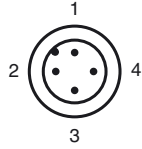
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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

Release date: 2016-06-16 14:25 Date of issue: 2016-06-16 084197_eng.xml



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