



Model Number

NBB2-8GM40-E2-V1

Features

- 2 mm flush
- Increased operating distance
- Extended temperature range -40 ... +85 °C

Accessories

BF 8

Mounting flange, 8 mm

V1-G

Female connector, M12, 4-pin, field attachable

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

EXG-08

Quick mounting bracket with dead stop

Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Switching function | | Normally open (NO) |
| Output type | | PNP |
| Rated operating distance | s_n | 2 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 1.62 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 8 mm x 8 mm x 1 mm |
| Reduction factor r_{Al} | | 0.4 |
| Reduction factor r_{Cu} | | 0.3 |
| Reduction factor r_{304} | | 0.75 |
| Reduction factor r_{Brass} | | 0.45 |
| Output type | | 3-wire |

Nominal ratings

| | | |
|--------------------------------|-------|----------------------------|
| Operating voltage | U_B | 5 ... 30 V |
| Switching frequency | f | 0 ... 6000 Hz |
| Hysteresis | H | typ. 5% |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 1.5 V |
| Operating current | I_L | 0 ... 100 mA |
| Off-state current | I_r | 0 ... 0.2 mA |
| No-load supply current | I_0 | ≤ 10 mA |
| Time delay before availability | t_v | ≤ 100 ms |
| Switching state indicator | | Multihole-LED, yellow |

Functional safety related parameters

| | |
|--------------------------|-------|
| MTTF _d | 960 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

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

Mechanical specifications

| | |
|----------------------|-------------------------------|
| Connection type | Connector plug M12 x 1, 4-pin |
| Housing material | brass, nickel-plated |
| Sensing face | LCP |
| Degree of protection | IP67 |
| Mass | 20 g |

General information

| | |
|-------------------|---------------------|
| Scope of delivery | 2 hex nuts included |
|-------------------|---------------------|

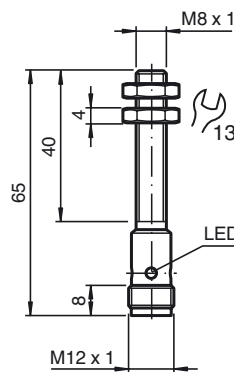
Compliance with standards and directives

| | |
|---------------------|---|
| 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 |

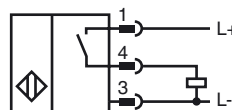
Approvals and certificates

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