

## Model Number

**NBB2-8GM40-E2**

## Features

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

## Accessories

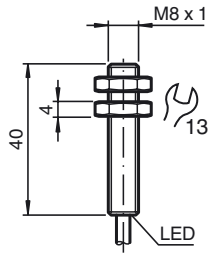
**BF 8**
Mounting flange, 8 mm

**EXG-08**
Quick mounting bracket with dead stop

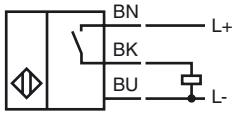
## Technical Data

| | | |
|---|---|---|
| **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)<br>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 | | 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 | | cable PVC , 2 m |
| Core cross-section | | 0.14 $mm^2$ |
| Housing material | | brass, nickel-plated |
| Sensing face | | LCP |
| Degree of protection | | IP67 |
| **General information** | | |
| Scope of delivery | | 2 hex nuts included |
| **Compliance with standards and directives** | | |
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007<br>EN 60947-5-2/A1:2012<br>IEC 60947-5-2:2007<br>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




Release date: 2018-01-08 13:25 Date of issue: 2018-01-09 304615-0055_eng.xml