

Inductive sensor

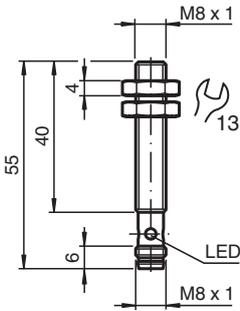
NBB2-8GM40-E0-V3



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



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Switching function | | Normally open (NO) |
| Output type | | NPN |
| 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 |

Release date: 2025-10-15 Date of issue: 2025-10-15 Filename: 304615-0054_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

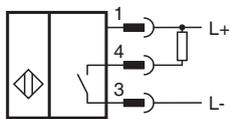
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

Technical Data

| | | |
|---|-------|---|
| 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 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN IEC 60947-5-2 |
| Approvals and certificates | | |
| UL approval | | cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 100 mA |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug |
| Housing material | | brass, nickel-plated |
| Sensing face | | LCP |
| Degree of protection | | IP65 / IP66 / IP67 |
| Connector | | |
| Threading | | M8 x 1 |
| Number of pins | | 3 |
| Dimensions | | |
| Length | | 55 mm |
| Diameter | | 8 mm |
| General information | | |
| Scope of delivery | | 2 hex nuts included |

Connection Assignment



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

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