

Inductive sensor

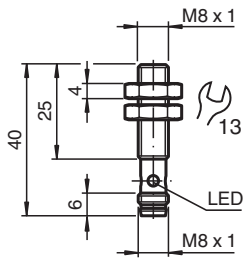
NBB2-8GM25-E3-V3



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



Dimensions



Technical Data

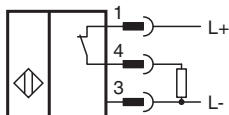
| General specifications | | |
|------------------------------|-------|---|
| Switching function | | Normally closed (NC) |
| Output type | | PNP |
| Rated operating distance | s_n | 2 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 1.62 mm |
| Actuating 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 |

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Technical Data

| | | |
|---|-------|--|
| No-load supply current | I_0 | $\leq 10 \text{ mA}$ |
| Time delay before availability | t_v | $\leq 100 \text{ ms}$ |
| 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, General Purpose, Class 2 Power Source |
| CCC approval | | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug M8 x 1 , 3-pin |
| Housing material | | brass, nickel-plated |
| Sensing face | | LCP |
| Degree of protection | | IP65 / IP66 / IP67 |
| Dimensions | | |
| Length | | 40 mm |
| Diameter | | 8 mm |
| General information | | |
| Scope of delivery | | 2 hex nuts included |

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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