

Inductive sensor

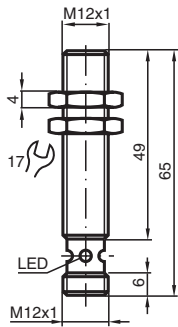
NBB2-12GM50-E2-C-V1



- 2 mm flush
- Weld Immune



Dimensions



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 |
| Reduction factor r_{Al} | | 0.3 |
| Reduction factor r_{Cu} | | 0.2 |
| Reduction factor r_{304} | | 0.7 |
| Output type | | 3-wire |
| Nominal ratings | | |
| Operating voltage | U_B | 10 ... 30 V DC |
| Switching frequency | f | 0 ... 1500 Hz |
| Hysteresis | H | typ. 5 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |

Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 085322_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

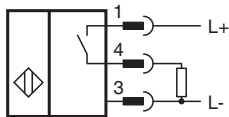
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

pf PEPPERL+FUCHS

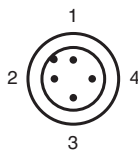
Technical Data

| | | |
|---|---|--|
| Voltage drop | U_d | $\leq 3\text{ V}$ |
| 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 | $\leq 15\text{ mA}$ |
| Constant magnetic field | B | 200 mT |
| Alternating magnetic field | B | 200 mT |
| Switching state indicator | Multihole-LED, yellow | |
| Functional safety related parameters | | |
| MTTF _d | 990 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 | |
| CCC approval | CCC approval / marking not required for products rated $\leq 36\text{ V}$ | |
| Ambient conditions | | |
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) | |
| Mechanical specifications | | |
| Connection type | Connector plug M12 x 1 , 4-pin | |
| Housing material | Brass, PTFE coated | |
| Sensing face | PPS | |
| Degree of protection | IP67 | |
| Dimensions | | |
| Length | 49 mm | |
| Diameter | 12 mm | |

Connection



Connection Assignment



Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 085322_eng.pdf

Connection Assignment

Wire colors in accordance with EN 60947-5-2

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