

Inductive sensor

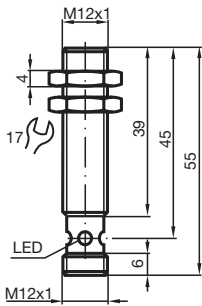
NBB2-12GM40-Z0-V1



- 2 mm flush
- Extended temperature range
- 2-wire DC



Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|---|
| Switching function | | Normally open (NO) |
| Output type | | Two-wire |
| Rated operating distance | s_n | 2 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 1.62 mm (-25 ... 70 °C (-13 ... 158 °F)) 0 ... 1.52 mm (-40 ... -25 °C (-40 ... -13 °F)) |
| Actual operating distance | s_r | 1.8 ... 2.2 mm typ. |
| Reduction factor r_{Al} | | 0.18 |
| Reduction factor r_{Cu} | | 0.12 |
| Reduction factor r_{304} | | 0.67 |
| Output type | | 2-wire |

Nominal ratings

Release date: 2022-06-21 Date of issue: 2022-06-21 Filename: 088191_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

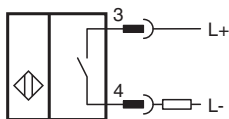
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

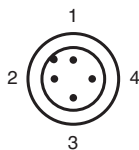
Technical Data

| | | |
|---|-------|---|
| Operating voltage | U_B | 5 ... 60 V |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | 1 ... 10 typ. 5 % |
| Reverse polarity protection | | reverse polarity tolerant |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 5 V |
| Operating current | I_L | 2 ... 100 mA |
| Lowest operating current | I_m | 2 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. |
| Time delay before availability | t_v | \leq |
| Switching state indicator | | Multihole-LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 2250 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007 IEC 60947-5-2:2007 |
| Approvals and certificates | | |
| UL approval | | cULus Listed, General Purpose |
| CSA approval | | cCSAus Listed, General Purpose |
| CCC approval | | Certified by China Compulsory Certification (CCC) |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 70 °C (-40 ... 158 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug M12 x 1 , 4-pin |
| Housing material | | brass, nickel-plated |
| Sensing face | | PBT |
| Degree of protection | | IP67 |

Connection



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

Accessories

| | | |
|---|--------------------|---|
|  | BF 12 | Mounting flange, 12 mm |
|  | V1-G-2M-PUR | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
|  | V1-W-2M-PUR | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey |

Release date: 2022-06-21 Date of issue: 2022-06-21 Filename: 088191_eng.pdf

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