

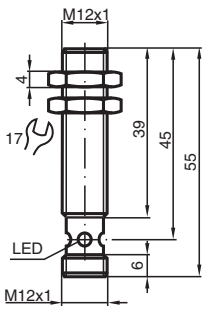
# Inductive sensor NCB2-12GM40-Z0-V1



- 2 mm flush
- 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             |
| Actual operating distance   | $s_r$ | 1.8 ... 2.2 mm typ.       |
| Reduction factor $r_{AI}$   |       | 0.28                      |
| Reduction factor $r_{Cu}$   |       | 0.23                      |
| Reduction factor $r_{304}$  |       | 0.7                       |
| Output type                 |       | 2-wire                    |
| Nominal ratings             |       |                           |
| Operating voltage           | $U_B$ | 5 ... 60 V                |
| Switching frequency         | $f$   | 0 ... 800 Hz              |
| Hysteresis                  | $H$   | 1 ... 10 % typ. 5 %       |
| Reverse polarity protection |       | reverse polarity tolerant |

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

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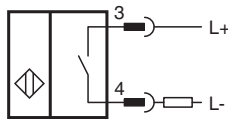
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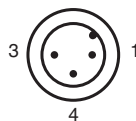
Technical Data

|                                          |       |                                                   |
|------------------------------------------|-------|---------------------------------------------------|
| Short-circuit protection                 |       | pulsing                                           |
| Voltage drop                             | $U_d$ | $\leq 5\text{ V}$                                 |
| Operating current                        | $I_L$ | 2 ... 100 mA                                      |
| Lowest operating current                 | $I_m$ | 2 mA                                              |
| Off-state current                        | $I_r$ | 0 ... 0.5 mA typ.                                 |
| Switching state indicator                |       | Multihole-LED, yellow                             |
| Functional safety related parameters     |       |                                                   |
| MTTF <sub>d</sub>                        |       | 2090 a                                            |
| Mission Time (T <sub>M</sub> )           |       | 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                             |       | Certified by China Compulsory Certification (CCC) |
| Ambient conditions                       |       |                                                   |
| Ambient temperature                      |       | -25 ... 70 °C (-13 ... 158 °F)                    |
| Mechanical specifications                |       |                                                   |
| Connection type                          |       | Connector plug                                    |
| Housing material                         |       | Stainless steel 1.4305 / AISI 303                 |
| Sensing face                             |       | PBT                                               |
| Degree of protection                     |       | IP67                                              |
| Connector                                |       |                                                   |
| Threading                                |       | M12 x 1                                           |
| Number of pins                           |       | 3                                                 |
| Mass                                     |       | 25 g                                              |
| Dimensions                               |       |                                                   |
| Length                                   |       | 40 mm                                             |
| Diameter                                 |       | 12 mm                                             |

Connection



Connection Assignment



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

Connection Assignment

Wire colors in accordance with EN 60947-5-2

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

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