

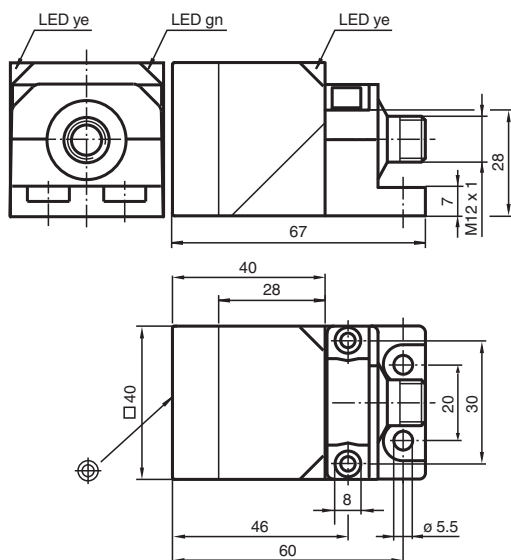


## Inductive sensor NBN40-L3M-A2-C3-V1

- 40 mm non-flush
- 4-wire DC
- Weld Immune
- Active surface thermoset
- 2-way LED indicator



### Dimensions



### Technical Data

#### General specifications

|                              |       |               |
|------------------------------|-------|---------------|
| Switching function           |       | complementary |
| Output type                  |       | PNP           |
| Rated operating distance     | $s_n$ | 40 mm         |
| Installation                 |       | non-flush     |
| Output polarity              |       | DC            |
| Assured operating distance   | $s_a$ | 0 ... 32.4 mm |
| Actual operating distance    | $s_r$ | 36 ... 44 mm  |
| Reduction factor $r_{Al}$    |       | 0.35          |
| Reduction factor $r_{Cu}$    |       | 0.3           |
| Reduction factor $r_{304}$   |       | 0.73          |
| Reduction factor $r_{Brass}$ |       | 0.43          |
| Output type                  |       | 4-wire        |

#### Nominal ratings

|                   |       |                |
|-------------------|-------|----------------|
| Operating voltage | $U_B$ | 10 ... 30 V DC |
|-------------------|-------|----------------|

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

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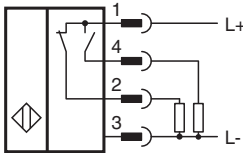
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**PEPPERL+FUCHS**

Technical Data

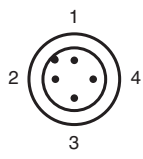
|                                                 |                |                                                              |
|-------------------------------------------------|----------------|--------------------------------------------------------------|
| Switching frequency                             | f              | 0 ... 5 Hz                                                   |
| Hysteresis                                      | H              | typ. 5 %                                                     |
| Reverse polarity protection                     |                | reverse polarity protected                                   |
| Short-circuit protection                        |                | pulsing                                                      |
| Voltage drop                                    | U <sub>d</sub> | ≤ 3 V                                                        |
| Operating current                               | I <sub>L</sub> | 0 ... 200 mA                                                 |
| Off-state current                               | I <sub>r</sub> | 0 ... 0.5 mA                                                 |
| No-load supply current                          | I <sub>0</sub> | ≤ 20 mA                                                      |
| Time delay before availability                  | t <sub>v</sub> | 80 ms                                                        |
| Operating voltage indicator                     |                | LED, green                                                   |
| Switching state indicator                       |                | LED, yellow                                                  |
| <b>Functional safety related parameters</b>     |                |                                                              |
| MTTF <sub>d</sub>                               |                | 1190 a                                                       |
| Mission Time (T <sub>M</sub> )                  |                | 20 a                                                         |
| Diagnostic Coverage (DC)                        |                | 0 %                                                          |
| <b>Compliance with standards and directives</b> |                |                                                              |
| Standard conformity                             |                |                                                              |
| Standards                                       |                | EN IEC 60947-5-2                                             |
| <b>Approvals and certificates</b>               |                |                                                              |
| UL approval                                     |                | cULus Listed, General Purpose                                |
| CCC approval                                    |                | CCC approval / marking not required for products rated ≤36 V |
| <b>Ambient conditions</b>                       |                |                                                              |
| Ambient temperature                             |                | -25 ... 85 °C (-13 ... 185 °F)                               |
| Storage temperature                             |                | -40 ... 85 °C (-40 ... 185 °F)                               |
| <b>Mechanical specifications</b>                |                |                                                              |
| Connection type                                 |                | Connector plug M12 x 1 , 4-pin                               |
| Housing material                                |                | GD-ZnAl4Cu1, Coated metal fixing flange, coated.             |
| Sensing face                                    |                | Duroplast                                                    |
| Degree of protection                            |                | IP67                                                         |
| Dimensions                                      |                |                                                              |
| Height                                          |                | 40 mm                                                        |
| Width                                           |                | 40 mm                                                        |
| Length                                          |                | 67 mm                                                        |

Connection



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Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

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