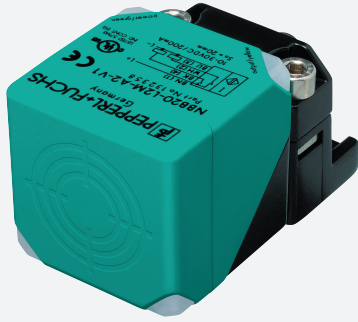


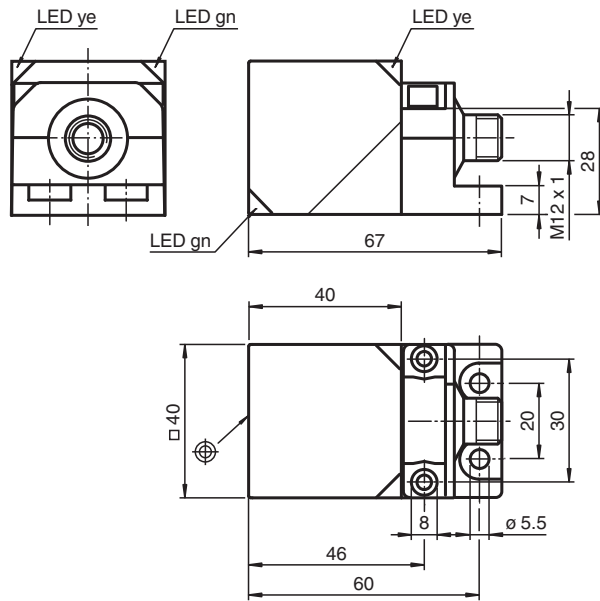


## Inductive sensor NBN40-L2M-E2-V1

- Sensor head bidirectional and rotatable
- 40 mm non-flush
- 3-wire DC
- 4-way LED indicator



### Dimensions



### Technical Data

#### General specifications

|                            |       |                    |
|----------------------------|-------|--------------------|
| Switching function         |       | Normally open (NO) |
| 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 $r_{AI}$  |       | 0.3                |
| Reduction factor $r_{Cu}$  |       | 0.28               |

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

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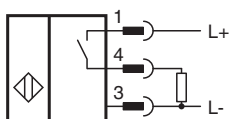
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**PEPPERL+FUCHS**

## Technical Data

|                                                        |       |                                                                           |
|--------------------------------------------------------|-------|---------------------------------------------------------------------------|
| Reduction factor $r_{304}$                             |       | 0.75                                                                      |
| Reduction factor $r_{Brass}$                           |       | 0.38                                                                      |
| Output type                                            |       | 3-wire                                                                    |
| <b>Nominal ratings</b>                                 |       |                                                                           |
| Operating voltage                                      | $U_B$ | 10 ... 30 V DC                                                            |
| Switching frequency                                    | $f$   | 0 ... 180 Hz                                                              |
| Hysteresis                                             | $H$   | typ. 5 %                                                                  |
| Reverse polarity protection                            |       | reverse polarity protected                                                |
| Short-circuit protection                               |       | pulsing                                                                   |
| Voltage drop                                           | $U_d$ | $\leq 2$ V                                                                |
| Operating current                                      | $I_L$ | 0 ... 200 mA                                                              |
| Off-state current                                      | $I_r$ | 0 ... 0.5 mA                                                              |
| Off-state current $T_U = 40$ °C, switching element off |       | $\leq$                                                                    |
| No-load supply current                                 | $I_0$ | $\leq 20$ mA                                                              |
| Time delay before availability                         | $t_v$ | 80 ms                                                                     |
| Operating voltage indicator                            |       | LED, green                                                                |
| Switching state indicator                              |       | LED, yellow                                                               |
| <b>Functional safety related parameters</b>            |       |                                                                           |
| MTTF <sub>d</sub>                                      |       | 1510 a                                                                    |
| Mission Time ( $T_M$ )                                 |       | 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 $\leq 36$ 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                                       |       | PA-GF35<br>metal base Xylan coated<br>metal mounting flange Xylan coated. |
| Sensing face                                           |       | PA-GF35                                                                   |
| Degree of protection                                   |       | IP69K                                                                     |
| <b>Cable</b>                                           |       |                                                                           |
| Cable diameter                                         |       | 3.3 mm $\pm$ 0.15 mm                                                      |
| <b>Dimensions</b>                                      |       |                                                                           |
| Height                                                 |       | 40 mm                                                                     |
| Width                                                  |       | 40 mm                                                                     |
| Length                                                 |       | 67 mm                                                                     |

## Connection



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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