

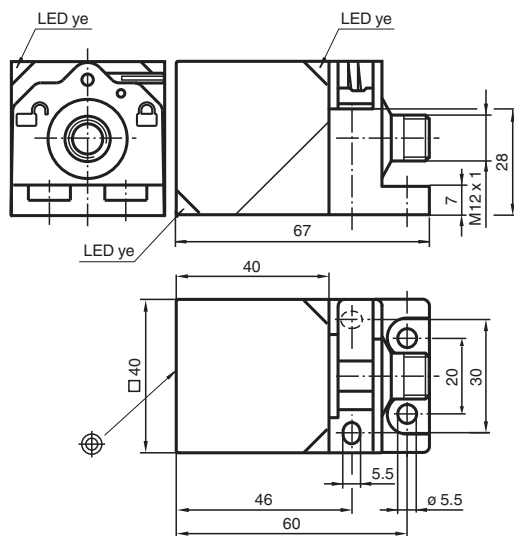
# Inductive sensor

## NBB20-L2-Z4-V1

- 20 mm flush
- Sensor head bidirectional and rotatable
- 2-wire DC
- Quick mounting bracket



### Dimensions



### Technical Data

#### General specifications

|                              |                    |               |
|------------------------------|--------------------|---------------|
| Switching function           | Normally open (NO) |               |
| Output type                  |                    | Two-wire      |
| Rated operating distance     | $s_n$              | 20 mm         |
| Installation                 |                    | flush         |
| Output polarity              |                    | DC            |
| Assured operating distance   | $s_a$              | 0 ... 16.2 mm |
| Actual operating distance    | $s_r$              | 18 ... 22 mm  |
| Reduction factor $r_{Al}$    |                    | 0.33          |
| Reduction factor $r_{Cu}$    |                    | 0.31          |
| Reduction factor $r_{304}$   |                    | 0.74          |
| Reduction factor $r_{Brass}$ |                    | 0.41          |
| Output type                  |                    | 2-wire        |

#### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Operating voltage           | $U_B$ | 3.8 ... 30 V DC            |
| Switching frequency         | $f$   | 0 ... 30 Hz                |
| Reverse polarity protection |       | reverse polarity protected |
| Short-circuit protection    |       | pulsing                    |
| Voltage drop                | $U_d$ | $\leq 3.8$ V               |
| Voltage drop at $I_L$       |       |                            |

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

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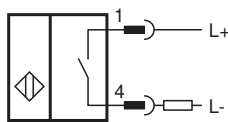
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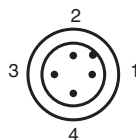
Technical Data

|                                                           |       |                                                                           |
|-----------------------------------------------------------|-------|---------------------------------------------------------------------------|
| Voltage drop $I_L = 100\text{ mA}$ , switching element on | $U_d$ | ... 3.8 V                                                                 |
| Operating current                                         | $I_L$ | 2 ... 100 mA                                                              |
| Off-state current                                         | $I_r$ | 0 ... 0.5 mA                                                              |
| Switching state indicator                                 |       | LED, yellow                                                               |
| 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)                                            |
| Storage temperature                                       |       | -25 ... 85 °C (-13 ... 185 °F)                                            |
| Mechanical specifications                                 |       |                                                                           |
| Connection type                                           |       | Connector plug                                                            |
| Housing material                                          |       | PA                                                                        |
| Sensing face                                              |       | PA                                                                        |
| Degree of protection                                      |       | IP69K                                                                     |
| Connector                                                 |       |                                                                           |
| Threading                                                 |       | M12 x 1                                                                   |
| Number of pins                                            |       | 4                                                                         |
| Mass                                                      |       | 142 g                                                                     |
| Dimensions                                                |       |                                                                           |
| Height                                                    |       | 40 mm                                                                     |
| Width                                                     |       | 40 mm                                                                     |
| Length                                                    |       | 67 mm                                                                     |

Connection



Connection Assignment



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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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