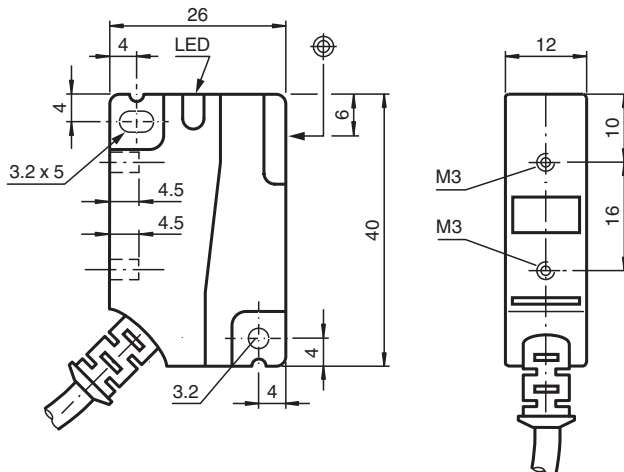


## Inductive sensor NBB4-F1-A0 5M

- 4 mm flush
- 4-wire DC



### Dimensions



### Technical Data

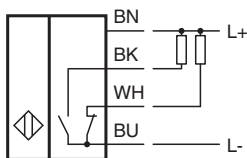
| General specifications       |       |                            |
|------------------------------|-------|----------------------------|
| Switching function           |       | complementary              |
| Output type                  |       | NPN                        |
| Rated operating distance     | $s_n$ | 4 mm                       |
| Installation                 |       | flush                      |
| Output polarity              |       | DC                         |
| Assured operating distance   | $s_a$ | 0 ... 3.24 mm              |
| Reduction factor $r_{Al}$    |       | 0.3                        |
| Reduction factor $r_{Cu}$    |       | 0.2                        |
| Reduction factor $r_{304}$   |       | 0.7                        |
| Reduction factor $r_{Brass}$ |       | 0.55                       |
| Output type                  |       | 4-wire                     |
| Nominal ratings              |       |                            |
| Operating voltage            | $U_B$ | 10 ... 30 V                |
| Switching frequency          | $f$   | 0 ... 1400 Hz              |
| Hysteresis                   | $H$   | typ. 5%                    |
| Reverse polarity protection  |       | reverse polarity protected |

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## Technical Data

|                                     |           |  |
|-------------------------------------|-----------|--|
| Short-circuit protection            |           | pulsing  |
| Voltage drop                        | $U_d$     | $\leq 2.5 \text{ V}$   |
| Rated insulation voltage            | $U_{BIS}$ | 60 V   |
| Operating current                   | $I_L$     | 0 ... 250 mA   |
| Off-state current                   | $I_r$     | $< 0.5 \text{ mA}$   |
| No-load supply current              | $I_0$     | $\leq 15 \text{ mA}$   |
| Switching state indicator           |           | LED, yellow  |
| <b>Standard conformity</b>          |           |  |
| Standards                           |           | IEC / EN 60947-5-2:2004  |
| <b>Approvals and certificates</b>   |           |  |
| UL approval                         |           | cULus Listed, General Purpose  |
| CCC approval                        |           | CCC approval / marking not required for products rated $\leq 36 \text{ V}$       |
| <b>Ambient conditions</b>           |           |  |
| Ambient temperature                 |           | $-25 \dots 70 \text{ }^\circ\text{C}$ ( $-13 \dots 158 \text{ }^\circ\text{F}$ ) |
| <b>Mechanical specifications</b>    |           |  |
| Connection type                     |           | cable  |
| Housing material                    |           | PA, green  |
| Sensing face                        |           | PA   |
| Degree of protection                |           | IP67   |
| Cable                               |           |  |
| Wire end ferrules                   |           | yes  |
| Cable diameter                      |           | $5.2 \text{ mm} \pm 0.2 \text{ mm}$  |
| Bending radius                      |           | $> 10 \times$ cable diameter   |
| Material                            |           | PVC  |
| Color                               |           | grey   |
| Number of cores                     |           | 4  |
| Core cross section                  |           | $0.5 \text{ mm}^2$   |
| Length                              | L         | 5 m  |
| Tightening torque, fastening screws |           | Threading M3 $\leq 1.1 \text{ Nm}$   |
| Dimensions                          |           |  |
| Height                              |           | 40 mm  |
| Width                               |           | 12 mm  |
| Length                              |           | 26 mm  |

## Connection



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