



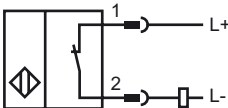
Model Number

NBB20-L2-Z5-C-V1

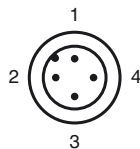
Features

- 20 mm flush
- 2-wire DC
- Weld Immune
- Quick mounting bracket

Connection



Pinout



Wire colors in accordance with EN 60947-5-2

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

Accessories

V1-G

4-pin, M12 female field-attachable connector

V1-W

4-pin, M12 female field-attachable connector

MH 02-L

Mounting aid

V1-W-2M-PUR

Cable socket, M12, 4-pin, PUR cable

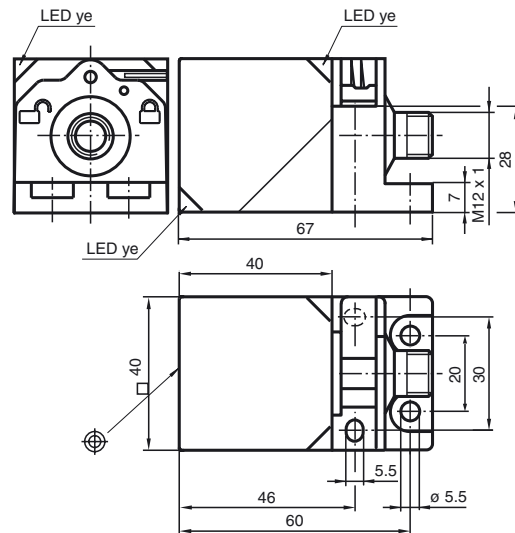
V1-G-2M-PUR

Cable socket, M12, 4-pin, PUR cable

MHW 01

Modular mounting bracket

Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|---------------|
| Switching element function | | NC contact |
| Rated operating distance | s_n | 20 mm |
| Installation | | flush |
| Assured operating distance | s_a | 0 ... 16.2 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 |

Nominal ratings

| | | |
|-----------------------------------|-------|----------------------------|
| Operating voltage | U_B | 3.8 ... 30 V DC |
| Switching frequency | f | 0 ... 3 Hz |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | yes |
| Voltage drop | U_d | ≤ 3.8 V |
| Operating current | I_L | 2 ... 100 mA |
| Off-state current | I_r | 0 ... 0.6 mA |
| Indication of the switching state | | LED, yellow |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |

Mechanical specifications

| | |
|-------------------|---------------------------------|
| Connection type | Device connector M12 x 1, 4-pin |
| Housing material | PA |
| Sensing face | PA |
| Protection degree | IP69K |
| Mass | 130 g |

Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus Listed, General Purpose |
| CSA approval | cCSAus Listed, General Purpose |
| CCC approval | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |