

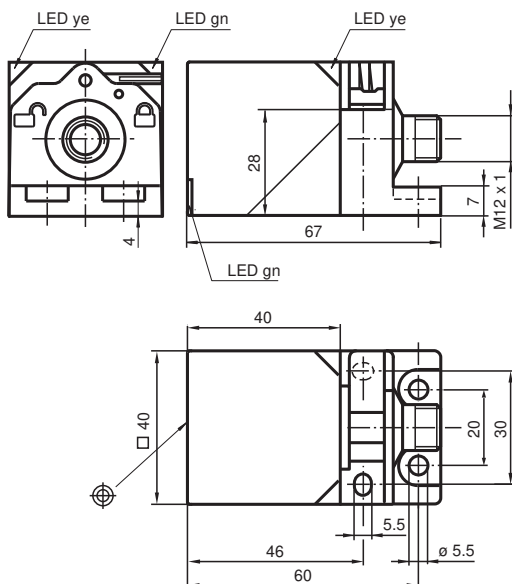


Inductive sensor NRB20-L3-A2-C-V1

- 20 mm flush
- Reduction factor = 1
- Weld Immune
- Quick mounting bracket
- 4-way LED indicator



Dimensions



Technical Data

| General specifications | | |
|-----------------------------|-------|-------------------------|
| Switching function | | complementary |
| Output type | | PNP |
| 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 typ. 20 mm |
| Reduction factor r_{Al} | | 1 |
| Reduction factor r_{Cu} | | 1 |
| Reduction factor r_{304} | | 1 |
| Reduction factor r_{St37} | | 1 |
| Output type | | 4-wire |
| Nominal ratings | | |

Release date: 2022-05-25 Date of issue: 2022-05-25 Filename: 306534-0101_eng.pdf

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

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PEPPERL+FUCHS

Technical Data

| | | |
|--------------------------------|-------|----------------------------|
| Operating voltage | U_B | 10 ... 30 V DC |
| Switching frequency | f | 0 ... 440 Hz |
| Hysteresis | H | 3 ... 15 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 2.5 V |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. 0.01 mA |
| No-load supply current | I_0 | ≤ 25 mA |
| Time delay before availability | t_v | 15 ms |
| Constant magnetic field | B | 200 mT |
| Alternating magnetic field | B | 200 mT |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | | |
|--------------------------------|--|--------|
| MTTF _d | | 1123 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |

Compliance with standards and directives

| | | |
|---------------------|--|---|
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 |

Approvals and certificates

| | | |
|---------------------------------|-----------|--|
| Protection class | | II |
| Rated insulation voltage | U_i | 60 V |
| Rated impulse withstand voltage | U_{imp} | 800 V |
| UL approval | | cULus Listed, General Purpose |
| CCC approval | | CCC approval / marking not required for products rated ≤ 36 V |

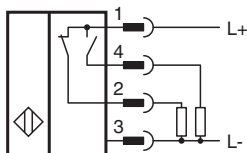
Ambient conditions

| | | |
|---------------------|--|--------------------------------|
| Ambient temperature | | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |

Mechanical specifications

| | | |
|----------------------|--|---|
| Connection type | | Connector plug M12 x 1, 4-pin |
| Housing material | | GD-ZnAl4Cu1, coated mounting flange PA6-GF35 |
| Sensing face | | PA 6 Grivory GVN-35H |
| Degree of protection | | IP67 |
| Mass | | 180 g |

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Accessories

| | | |
|--|--------------------|---|
| | V1-G-2M-PUR | Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey |
| | V1-W-2M-PUR | Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey |
| | MHW 01 | Modular mounting bracket |
| | MH 02-L | Mounting aid for VariKont-L |
| | MH 04-2681F | Mounting aid for VariKont, +U1+ and +U9* |

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