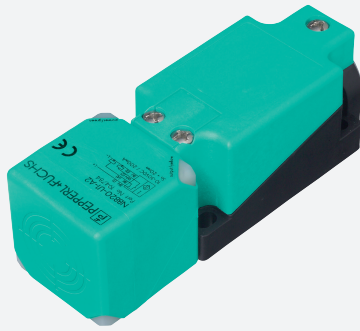


Inductive sensor

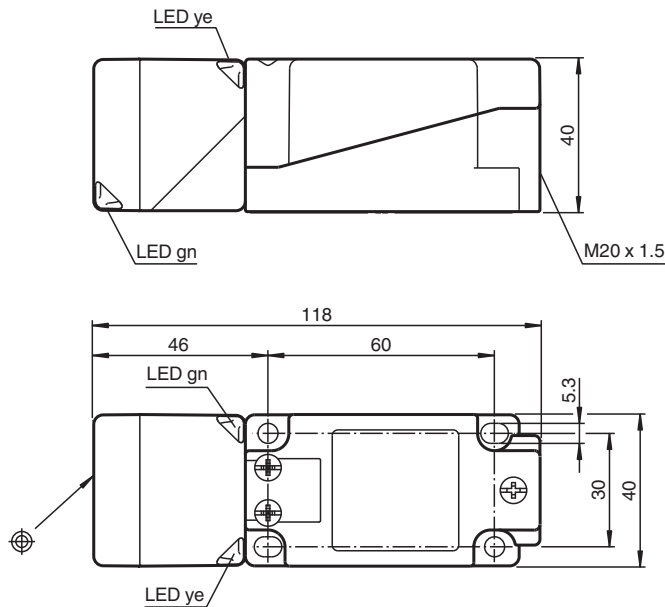
NBB15-U1-E1



- Sensor head bidirectional and rotatable
- 4 LEDs indicator for 360° visibility
- 15 mm flush



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|-----------------------------|
| Switching function | | Normally closed (NC) |
| Output type | | NPN |
| Rated operating distance | s_n | 15 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 12.15 mm |
| Actual operating distance | s_r | 13.5 ... 16.5 mm typ. 15 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 | | 3-wire |

Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 194766_eng.pdf

Technical Data

Nominal ratings

| | | |
|--------------------------------|-------|--|
| Operating voltage | U_B | 10 ... 30 V |
| Switching frequency | f | 0 ... 560 Hz |
| Hysteresis | H | typ. 5 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 2 V |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. 0.1 μ A at 25 °C |
| No-load supply current | I_0 | ≤ 20 mA |
| Time delay before availability | t_v | 80 ms |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | | |
|--------------------------------|--|--------|
| MTTF _d | | 1460 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |

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 ≤ 36 V |

Ambient conditions

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

Mechanical specifications

| | | |
|----------------------|--|-------------------------------------|
| Connection type | | screw terminals |
| Core cross section | | ≤ 2.5 mm ² |
| Housing material | | PA/metal with epoxy powder coating |
| Sensing face | | PA |
| Housing base | | plastic |
| Degree of protection | | IP68 / IP69K |
| Mass | | 225 g |
| Dimensions | | |
| Height | | 40 mm |
| Width | | 40 mm |
| Length | | 118 mm |
| Note | | Tightening torque: 1.8 Nm (housing) |

Connection

