



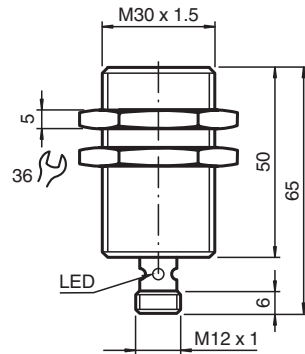
Inductive sensor

NBB10-30GM50-E2-C-V1

- 10 mm flush
- Weld Immune
- Slag repellent coatings



Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|--------------------|
| Switching function | | Normally open (NO) |
| Output type | | PNP |
| Rated operating distance | s_n | 10 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 8.1 mm |
| Reduction factor r_{Al} | | 0.3 |
| Reduction factor r_{Cu} | | 0.2 |
| Reduction factor r_{304} | | 0.6 |
| Output type | | 3-wire |

Nominal ratings

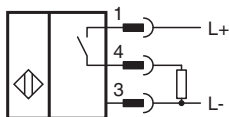
| | | |
|-----------------------------|-------|--|
| Operating voltage | U_B | 10 ... 30 V DC |
| Switching frequency | f | 0 ... 10 Hz |
| Hysteresis | H | typ. 5% |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 V |
| 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 | ≤ 17 mA |

Release date: 2025-06-06 Date of issue: 2025-06-06 Filename: 904406_eng.pdf

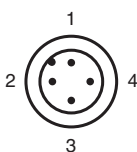
Technical Data

| | | |
|---|---|---|
| Constant magnetic field | B | 100 mT |
| Alternating magnetic field | B | 100 mT |
| Switching state indicator | | Multihole-LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 1835 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Indicators/operating means | | |
| Operation indicator | | 4-way dual LED Green: power Yellow: output |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN IEC 60947-5-2 |
| Approvals and certificates | | |
| UL approval | | cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA |
| CCC approval | | CCC approval / marking not required for products rated ≤36 V |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 70 °C (-13 ... 158 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug |
| Housing material | | Brass, PTFE coated |
| Sensing face | | PPS |
| Degree of protection | | IP67 |
| Connector | | |
| Threading | | M12 x 1 |
| Number of pins | | 4 |
| Dimensions | | |
| Length | | 50 mm |
| Diameter | | 30 mm |

Connection



Connection Assignment



Connection Assignment

Wire colors in accordance with EN 60947-5-2

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