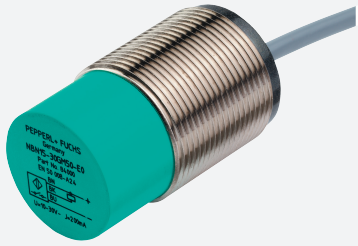


Inductive sensor

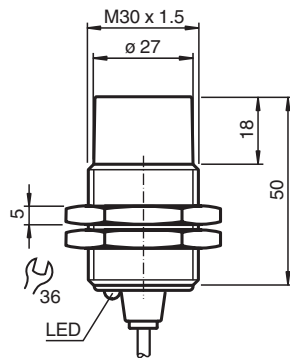
NBN25-30GM50-A0-M1



- 25 mm non-flush
- Increased operating distance
- Extended temperature range
-40 ... +85 °C
- With increased sealing, protection class
IP68 / IP69K
- E1-Type approval



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Switching function | | complementary |
| Output type | | NPN |
| Rated operating distance | s_n | 25 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 20.25 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 75 mm x 75 mm x 1 mm |
| Reduction factor r_{Al} | | 0.5 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 0.7 |
| Reduction factor r_{Brass} | | 0.5 |
| Output type | | 4-wire |

Nominal ratings

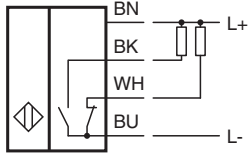
| | | |
|-------------------------|--|-------|
| Installation conditions | | |
| A | | 28 mm |
| B | | 40 mm |

Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 293454-0054_eng.pdf

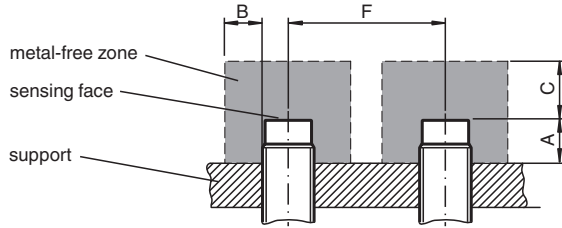
Technical Data

| | | |
|---|-------|--|
| C | | 75 mm |
| F | | 120 mm |
| Operating voltage | U_B | 7 ... 30 V |
| Switching frequency | f | 0 ... 450 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. 4 μ A at 25 °C |
| No-load supply current | I_0 | ≤ 10 mA |
| Time delay before availability | t_v | ≤ 100 ms |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 1494 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, Class 2 Power Source |
| CCC approval | | CCC approval / marking not required for products rated ≤ 36 V |
| E1 Type approval | | 10R-04 |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | cable |
| Housing material | | brass, nickel-plated |
| Sensing face | | PBT |
| Degree of protection | | IP68 / IP69K |
| Cable | | |
| Wire end ferrules | | yes |
| Cable diameter | | 4.3 mm \pm 0.1 mm |
| Bending radius | | > 10 x cable diameter |
| Material | | PUR |
| Color | | black |
| Number of cores | | 4 |
| Core cross section | | 0.34 mm ² |
| Length | L | 2 m |
| Mass | | 135 g |
| Dimensions | | |
| Length | | 50 mm |
| Diameter | | 30 mm |
| General information | | |
| Scope of delivery | | 2 self locking nuts in scope of delivery |

Connection



Installation



Technical Features

Mains-borne interference in accordance with ISO 7637-2:

| | | | | | | |
|-------------------|-----|-----|-----|-----|-----|-----|
| Pulse | 1 | 2a | 2b | 3a | 3b | 4 |
| Severity level | III | III | III | III | III | III |
| Failure criterion | A | A | C | A | A | C |

| | |
|----------------|------------------------|
| EN 61000-4-2: | CD: 8 kV / AD: 15 kV |
| Severity level | IV IV |
| EN 61000-4-3: | 36 V/m (80...2500 MHz) |
| Severity level | IV |
| EN 61000-4-4: | 2 kV |
| Severity level | III |
| EN 61000-4-6: | 30 V (0.01...80 MHz) |
| Severity level | III |
| EN 55011: | Class A |

Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 293454-0054_eng.pdf