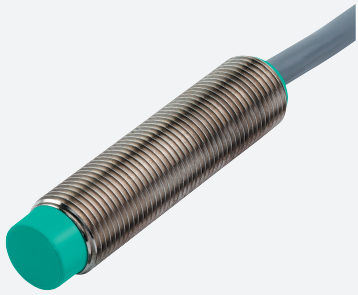


Inductive sensor

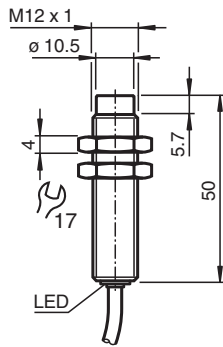
NEN10-12GM50-E0-5M



- Increased operating distance
- 10 mm non-flush



Dimensions



Technical Data

General specifications

| | | |
|------------------------------|-------|---|
| Switching function | | Normally open (NO) |
| Output type | | NPN |
| Rated operating distance | s_n | 10 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 8.1 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 30 mm x 30 mm x 1 mm |
| Reduction factor r_{Al} | | 0.45 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 0.75 |
| Reduction factor r_{Brass} | | 0.45 |
| Output type | | 3-wire |

Nominal ratings

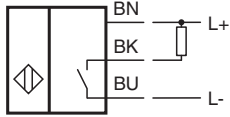
| | | |
|-------------------------|-------|-------------------------------|
| Installation conditions | | |
| A | | in steel 1.0037 (St37): 10 mm |
| B | | 12 mm |
| C | | 30 mm |
| F | | 42 mm |
| Operating voltage | U_B | 10 ... 30 V DC |

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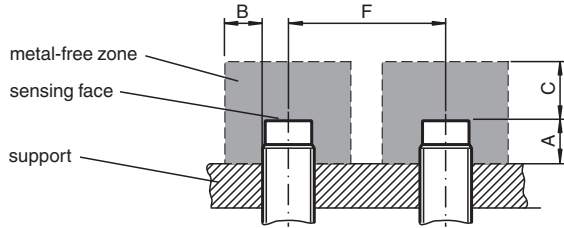
Technical Data

| | | |
|---|-------|--|
| Switching frequency | f | 0 ... 600 Hz |
| Hysteresis | H | 0.06 ... 1 mm |
| Reverse polarity protection | | yes |
| Short-circuit protection | | pulsing |
| Overload resistance | | yes |
| Wire breakage protection | | yes |
| Surge suppression | | yes |
| Ripple | | 10 % |
| Voltage drop | U_d | ≤ 2 V |
| Repeat accuracy | R | 0.3 mm |
| Operating current | I_L | 0 ... 200 mA , above 70°C max. 150 mA |
| Off-state current | I_r | ≤ 10 μ A |
| No-load supply current | I_0 | ≤ 15 mA |
| Time delay before availability | t_v | ≤ 50 ms |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 1740 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) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | cable |
| Housing material | | brass, nickel-plated |
| Sensing face | | PBT |
| Degree of protection | | IP67 |
| Cable | | |
| Wire end ferrules | | yes |
| Cable diameter | | 4.3 mm \pm 0.2 mm |
| Bending radius | | > 10 x cable diameter |
| Material | | PUR |
| Color | | black |
| Number of cores | | 3 |
| Core cross section | | 0.34 mm ² |
| Length | L | 5 m |
| Mass | | 200 g |
| Dimensions | | |
| Length | | 50 mm |
| Diameter | | 12 mm |
| Tightening torque | | ≤ 10 Nm |

Connection



Installation



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