

Inductive sensor

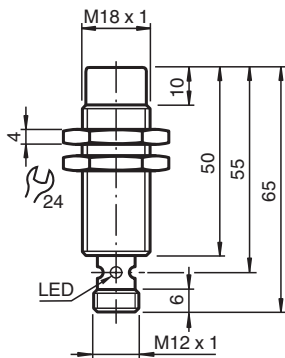
NBN12-18GM50-EI-V1



- 12 mm non-flush
- Extended temperature range
-40 ... +85 °C
- Digital current output



Dimensions



Technical Data

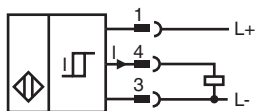
| General specifications | | |
|------------------------------|-------|---|
| Output type | | Digital current output |
| Rated operating distance | s_n | 12 mm |
| Installation | | non-flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 9.72 mm |
| Actuating element | | mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm |
| Reduction factor r_{Al} | | 0.45 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{304} | | 0.7 |
| Reduction factor r_{Brass} | | 0.5 |
| Output type | | 3-wire |
| Nominal ratings | | |
| Operating voltage | U_B | 9 ... 30 V DC |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | 2 ... 15 % |

Release date: 2025-03-12 Date of issue: 2025-03-12 Filename: 281568_eng.pdf

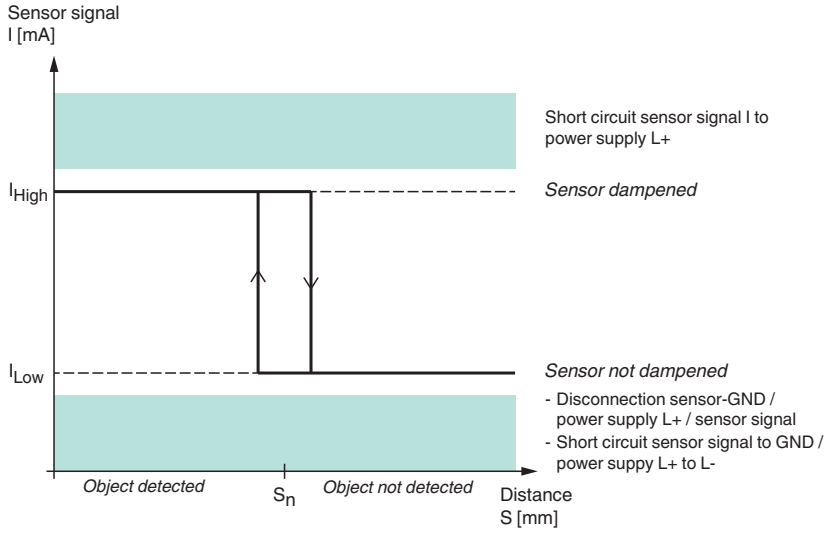
Technical Data

| | | |
|---|-------|---|
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | yes |
| Temperature drift | | ≤ 10 % |
| Time delay before availability | t_v | ≤ 5 ms |
| Load resistor | | 100 ... 250 Ohm |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 1601 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Digital output | | |
| Output value | | object detected: 10 mA ± 1 mA object not detected: 5 mA ± 1 mA |
| 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 |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Mechanical specifications | | |
| Connection type | | Connector plug |
| Housing material | | brass, nickel-plated |
| Sensing face | | PBT |
| Degree of protection | | IP68 / IP69K |
| Connector | | |
| Threading | | M12 x 1 |
| Number of pins | | 3 |
| Dimensions | | |
| Length | | 65 mm |
| Diameter | | 18 mm |
| General information | | |
| Scope of delivery | | 2 self locking nuts in scope of delivery |

Connection



Characteristic Curve



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