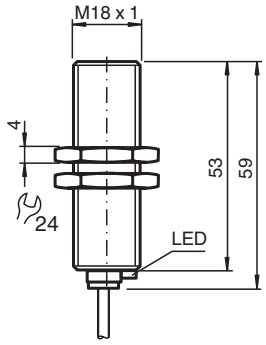


# Inductive sensor

# NEB12-18GM50-E3

- Increased operating distance
- 12 mm quasi flush

## Dimensions




## Technical Data

| | | |
|---|---|---|
| **General specifications** | | |
| Switching function | | Normally closed (NC) |
| Output type | | PNP |
| Rated operating distance | $s_n$ | 12 mm |
| Installation | | quasi 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)<br>36 mm x 36 mm x 1 mm |
| Reduction factor $r_{Al}$ | | 0.26 |
| Reduction factor $r_{Cu}$ | | 0.2 |
| Reduction factor $r_{304}$ | | 0.63 |
| Reduction factor $r_{Brass}$ | | 0.33 |
| Output type | | 3-wire |
| **Nominal ratings** | | |
| Installation conditions | | |
| A | | in steel 1.0037 (St37): 4 mm |
| B | | 14 mm |
| C | | 36 mm |
| F | | 36 mm |
| Operating voltage | $U_B$ | 10 ... 30 V |

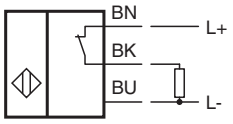
Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 231728_eng.pdf

## Technical Data

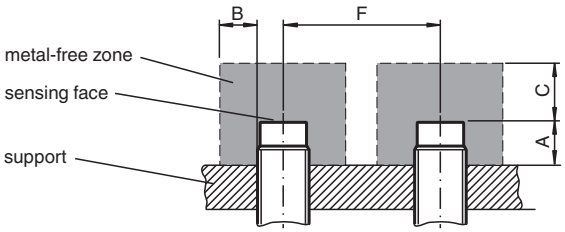
| | | |
|---|---|---|
| Switching frequency | f | 0 ... 500 Hz |
| Hysteresis | H | 0.12 ... 1.8 mm |
| Reverse polarity protection | | yes |
| Short-circuit protection | | pulsing |
| Overload resistance | | yes |
| Wire breakage protection | | yes |
| Inductive overvoltage protection | | yes |
| Surge suppression | | yes |
| Ripple | | 10 % |
| Voltage drop | $U_d$ | ≤ 2 V |
| Repeat accuracy | R | 0.6 mm |
| Operating current | $I_L$ | 0 ... 200 mA |
| Off-state current | $I_r$ | ≤ 10 µA |
| No-load supply current | $I_0$ | ≤ 11 mA |
| Time delay before availability | $t_v$ | ≤ 50 ms |
| Switching state indicator | | LED, yellow |
| **Functional safety related parameters** | | |
| $MTTF_d$ | | 2650 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 ± 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 | 2 m |
| Mass | | 100 g |
| Dimensions | | |
| Length | | 53 mm |
| Diameter | | 18 mm |

Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 231728_eng.pdf

## Connection Assignment




## Installation




Release date: 2025-01-10 Date of issue: 2025-01-10 Filename: 231728_eng.pdf