

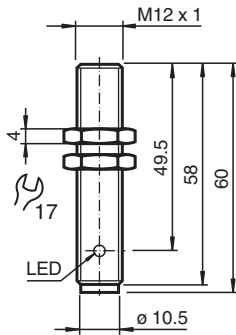


## Inductive sensor NEB6-12GM50-E0-V1

- Increased operating distance
- 6 mm flush



### Dimensions



### Technical Data

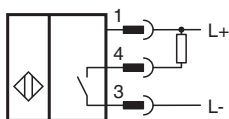
General specifications		
Switching function		Normally open (NO)
Output type		NPN
Rated operating distance	$s_n$	6 mm
Installation		quasi flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 4.8 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm
Reduction factor $r_{Al}$		0.28
Reduction factor $r_{Cu}$		0.2
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.35
Output type		3-wire
Nominal ratings		
Installation conditions		
A		in steel 1.0037 (St37): 2.4 mm in other metal: 1.2 mm
B		12 mm
C		18 mm
F		24 mm

Release date: 2025-05-20 Date of issue: 2025-05-20 Filename: 231713\_eng.pdf

## Technical Data

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	0.06 ... 1.2 mm
Reverse polarity protection		yes
Short-circuit protection		pulsing
Overload resistance		yes
Wire breakage protection		yes
Surge suppression		yes
Ripple		10 %
Voltage drop	$U_d$	$\leq 2$ V
Repeat accuracy	R	0.3 mm
Operating current	$I_L$	0 ... 200 mA , above 70°C max. 150 mA
Off-state current	$I_r$	$\leq 10$ $\mu$ A
No-load supply current	$I_0$	$\leq 15$ mA
Time delay before availability	$t_v$	$\leq 50$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1740 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
<b>Connector</b>		
Threading		M12 x 1
Number of pins		3
Mass		20 g
<b>Dimensions</b>		
Length		60 mm
Diameter		12 mm

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

## Installation Conditions

