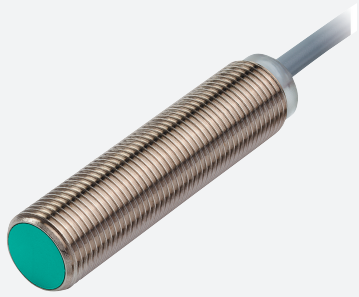


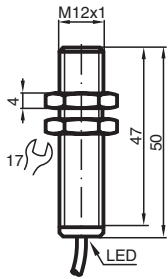
# Inductive sensor

## NBB2-12GM50-E2-Y70184106

■ 2 mm flush



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 1.62 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm
Reduction factor $r_{Al}$		0.3
Reduction factor $r_{Cu}$		0.2
Reduction factor $r_{304}$		0.7
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	f	0 ... 1500 Hz
Hysteresis	H	typ. 5 %

Release date: 2025-02-24 Date of issue: 2025-02-24 Filename: 70184106\_eng.pdf

## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 17$ mA
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1060 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<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 ... 70 °C (-13 ... 158 °F)
Storage temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		brass, nickel-plated
Sensing face		PBT , green
Degree of protection		IP67
<b>Cable</b>		
Wire end ferrules		yes
Cable diameter		3 mm + 0.3 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		grey
Number of cores		3
Core cross section		0.14 mm <sup>2</sup>
Length	L	2 m
Mass		86 g
<b>Dimensions</b>		
Length		50 mm
Diameter		12 mm
Mounting		with nuts, M12
Tightening torque		$\leq 10$ Nm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery

## Connection



Release date: 2025-02-24 Date of issue: 2025-02-24 Filename: 70184106\_eng.pdf