

# Inductive sensor

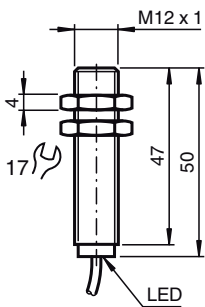
## NBB4-12GM50-E3



- Basic series
- 4 mm flush
- Increased operating distance



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally closed (NC)
Output type		PNP
Rated operating distance	$s_n$	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 3.24 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.7
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 800 Hz
Hysteresis	$H$	typ. 5%
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	$I_0$	$\leq 15$ mA
Time delay before availability	$t_v$	$\leq 5$ ms

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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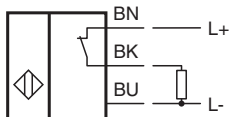
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## Technical Data

Switching state indicator	LED, yellow
<b>Functional safety related parameters</b>	
MTTF <sub>d</sub>	1315 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
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤36 V
<b>Ambient conditions</b>	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>	
Connection type	cablc PVC , 2 m
Core cross-section	0.14 mm <sup>2</sup>
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67
<b>General information</b>	
Scope of delivery	2 self locking nuts in scope of delivery

## Connection Assignment



## Accessories

	<b>BF 12</b>	Mounting flange, 12 mm
	<b>EXG-12</b>	Quick mounting bracket with dead stop

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