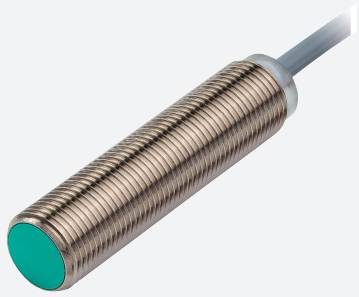


# Inductive sensor

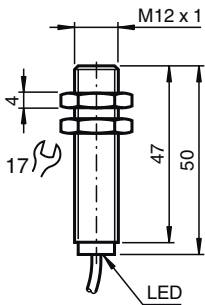
## NBB4-12GM50-E2-3G-3D



- Increased operating distance
- 4 mm flush
- ATEX-/IECEX-approvals for zone 2/22 (Ex ec/tc)



### Dimensions



### Technical Data

General specifications		
Switching function		Normally open (NO)
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 DC
Switching frequency	$f$	0 ... 1000 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 ... 150 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu$ A at 25 °C
Off-state current $T_U = 40$ °C, switching element off		$\leq$
No-load supply current	$I_0$	$\leq 15$ mA

Release date: 2022-07-15 Date of issue: 2022-07-15 Filename: 70126032\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

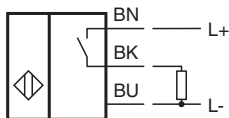
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PF** PEPPERL+FUCHS


## Technical Data

Time delay before availability	$t_v$	$\leq 5$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1820 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>		
IECEx approval		
Equipment protection level Gc (ec)		IECEx TUR 21.0017X
Equipment protection level Dc (tc)		IECEx TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		cULus Listed, General Purpose
Marine approval		DNVGL TAA0000160
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		cable PVC , 2 m
Cable version		PBT
Core cross section		0.14 mm <sup>2</sup>
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		3.5 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
<b>General information</b>		
Use in the hazardous area		see instruction manuals

## Connection



## Accessories

	<b>BF 12</b>	Mounting flange, 12 mm
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