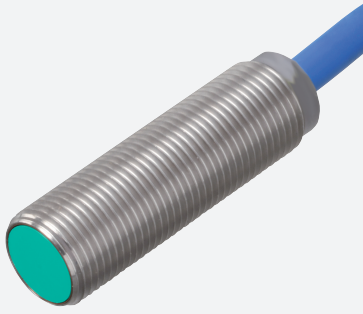


# Inductive sensor

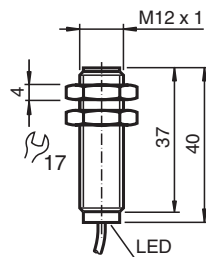
## NCB4-12GM40-N0



- 4 mm flush
- Usable up to SIL 2 acc. to IEC 61508



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	4 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 3.24 mm
Actual operating distance	$s_r$	3.6 ... 4.4 mm typ.
Reduction factor $r_{AI}$		0.41
Reduction factor $r_{Cu}$		0.39
Reduction factor $r_{304}$		0.78
Output type		2-wire

#### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes

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

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**PF** PEPPERL+FUCHS

## Technical Data

Suitable for 2:1 technology	yes , Reverse polarity protection diode not required
Current consumption	
Measuring plate not detected	min. 2.2 mA
Measuring plate detected	≤ 1 mA
Switching state indicator	all direction LED, yellow
<b>Functional safety related parameters</b>	
Safety Integrity Level (SIL)	SIL 2
MTTF <sub>d</sub>	3010 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %
<b>Compliance with standards and directives</b>	
Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
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 Ga	IECEX PTB 11.0037X
Equipment protection level Gb	IECEX PTB 11.0037X
Equipment protection level Da	IECEX PTB 11.0037X
Equipment protection level Mb	IECEX PTB 11.0037X
ATEX approval	
Equipment protection level Ga	PTB 00 ATEX 2048 X
Equipment protection level Gb	PTB 00 ATEX 2048 X
Equipment protection level Da	PTB 00 ATEX 2048 X
UL approval	
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0452
CCC approval	
Hazardous Location	2020322315002255
NEPSI approval	
NEPSI certificate	GYJ16.1393X
ANZEx	18.3018X
Marine approval	DNVGL TAA00001A5
<b>Ambient conditions</b>	
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)
<b>Mechanical specifications</b>	
Connection type	cable
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP66 / IP67
Cable	
Cable diameter	4.8 mm ± 0.2 mm
Bending radius	> 10 x cable diameter
Material	PVC
Core cross section	0.34 mm <sup>2</sup>
Length	L 2 m
<b>General information</b>	

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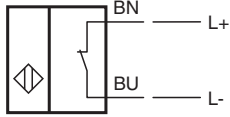
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**PEPPERL+FUCHS**


## Technical Data

Scope of delivery	2 self locking nuts in scope of delivery
Use in the hazardous area	see instruction manuals

## Connection



## Accessories

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