

# Inductive sensor

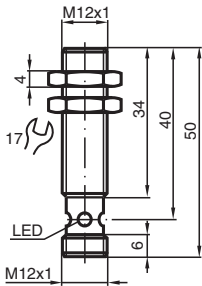
## NCB2-12GM35-N0-V1



- 2 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	$s_n$	2 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 1.62 mm
Actual operating distance	$s_r$	1.8 ... 2.2 mm typ.
Reduction factor $r_{Al}$		0.23
Reduction factor $r_{Cu}$		0.21
Reduction factor $r_{304}$		0.7
Output type		2-wire
Nominal ratings		
Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Operating voltage	$U_B$	5 ... 25 V
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity protected

Release date: 2024-01-09 Date of issue: 2024-01-09 Filename: 70133040\_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

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## Technical Data

Short-circuit protection	yes
Suitable for 2:1 technology	yes , Reverse polarity protection diode not required
Current consumption	
Measuring plate not detected	≥ 2.2 mA at nominal voltage
Measuring plate detected	≤ 1 mA at nominal voltage
Switching state indicator	Multihole-LED, yellow
<b>Functional safety related parameters</b>	
Safety Integrity Level (SIL)	SIL 2
MTTF <sub>d</sub>	2099 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
CML approval	on request
ANZEx	18.3018X
KCC approval	
Hazardous Location	09-AV4BO-0226
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	Connector plug
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP66 / IP67
Connector	
Threading	M12 x 1
Number of pins	4

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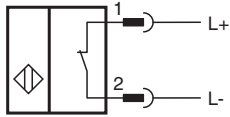
Pepperl+Fuchs Group  
www.pepperl-fuchs.comUSA: +1 330 486 0001  
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## Technical Data

Dimensions	
Length	34 mm
Diameter	12 mm
General information	
Scope of delivery	2 self locking nuts in scope of delivery
Use in the hazardous area	see instruction manuals

## Connection



Wire colors in accordance with EN 60947-5-6

- |   |  |    |         |
|---|--|----|---------|
| 1 |  | BN | (brown) |
| 2 |  | BU | (blue)  |