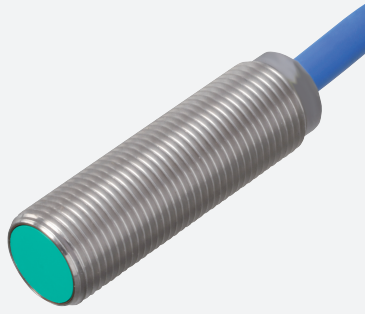


# Inductive sensor

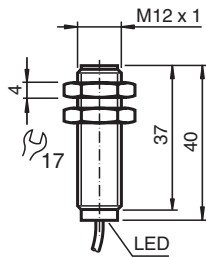
## NCB4-12GM40-N0



- 4 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- Stainless steel housing
- Polarity reversal protected



### 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 $r_{Al}$		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
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		$\leq 1$ mA
Switching state indicator		all direction LED, yellow
Functional safety related parameters		

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## Technical Data

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 IEC 60947-5-2
<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
CML approval		on request
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		
Wire end ferrules		yes
Cable diameter		4.8 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		blue
Number of cores		2
Core cross section		0.34 mm <sup>2</sup>
Length	L	2 m
Dimensions		
Length		40 mm
Diameter		12 mm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

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## Connection Assignment

