

# Inductive sensor

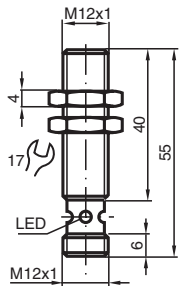
## NCB4-12GM40-N0-V1



- 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 $r_{AI}$		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

Release date: 2025-06-12 Date of issue: 2025-06-14 Filename: 70133044\_eng.pdf

## Technical Data

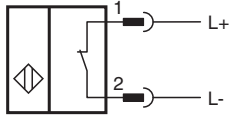
Suitable for 2:1 technology	yes , Reverse polarity protection diode not required
Current consumption	
Measuring plate not detected	min. 2.2 mA
Measuring plate detected	≤ 1 mA
Switching state indicator	Multihole-LED, yellow
<b>Functional safety related parameters</b>	
Safety Integrity Level (SIL)	SIL 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 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 Dc (tc)	IECEX TUR 21.0018X
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
Equipment protection level Dc (tc)	TÜV 20 ATEX 8524 X
UL approval	
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0452
CCC approval	
Hazardous Location	2020322315002255 2024322315005860
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	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
Dimensions	
Length	40 mm
Diameter	12 mm
<b>General information</b>	

Release date: 2025-06-12 Date of issue: 2025-06-14 Filename: 70133044\_eng.pdf

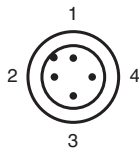
### Technical Data

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

### Connection Assignment



### Connection Assignment

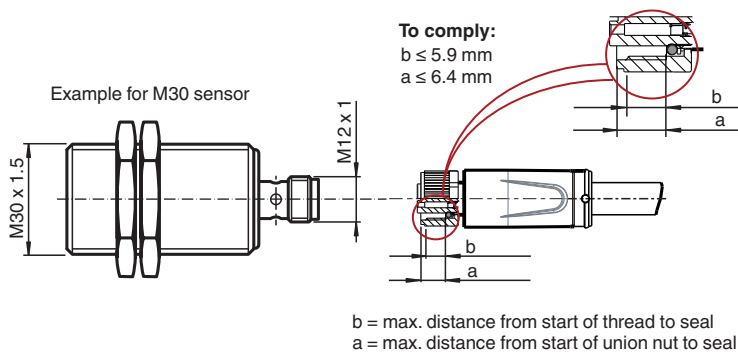


Wire colors in accordance with EN 60947-5-6

1	BN	(brown)
2	BU	(blue)

### Installation

#### Requirement for cable socket to achieve IP degree of protection



Release date: 2025-06-12 Date of issue: 2025-06-14 Filename: 70133044\_eng.pdf