

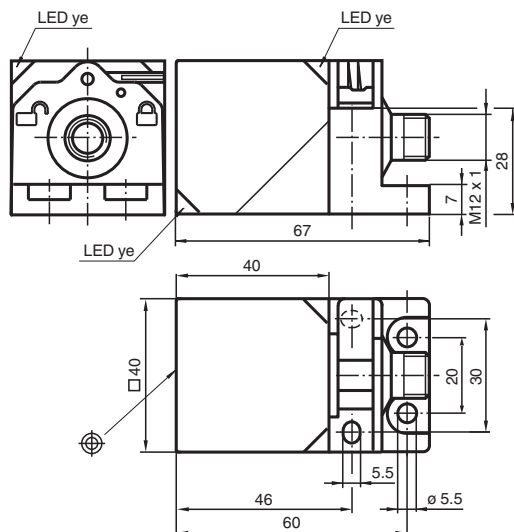


Inductive sensor NCB20-L2-N0-V1

- 20 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- Sensor head bidirectional and rotatable
- Quick mounting bracket
- NAMUR output
- Polarity reversal protected



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	20 mm
Installation		flush
Assured operating distance	s_a	0 ... 16.2 mm
Actual operating distance	s_r	18 ... 22 mm
Reduction factor r_{AI}		0.33
Reduction factor r_{Cu}		0.31
Reduction factor r_{304}		0.74

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 300 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity protected

Technical Data

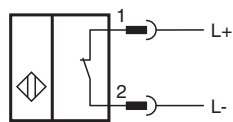
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		≥ 2.2 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		LED, yellow
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
MTTF _d		1660 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEx approval		
Equipment protection level Ga		IECEx PTB 11.0021X
Equipment protection level Gb		IECEx PTB 11.0021X
Equipment protection level Da		IECEx PTB 11.0021X
Equipment protection level Dc (tc)		IECEx TUR 21.0020X
Equipment protection level Mb		IECEx PTB 11.0021X
ATEX approval		
Equipment protection level Ga		PTB 00 ATEX 2032 X
Equipment protection level Gb		PTB 00 ATEX 2032 X
Equipment protection level Da		PTB 00 ATEX 2032 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8526 X
Protection class		II
Rated insulation voltage	U _i	253 V
Rated impulse withstand voltage	U _{imp}	4000 V
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CCC approval		
Hazardous Location		2020322315002302 2024322315005982
CML approval		on request
ANZEx		19.3001X
Marine approval		DNVGL TAA00001A5
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		PA
Sensing face		PA
Degree of protection		IP66 / IP69K
Connector		
Threading		M12 x 1
Number of pins		4
Mass		130 g
Dimensions		

Release date: 2025-06-12 Date of issue: 2025-06-15 Filename: 70133147_eng.pdf

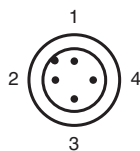
Technical Data

Height	40 mm
Width	40 mm
Length	67 mm
General information	
Use in the hazardous area	see instruction manuals

Connection Assignment



Connection Assignment

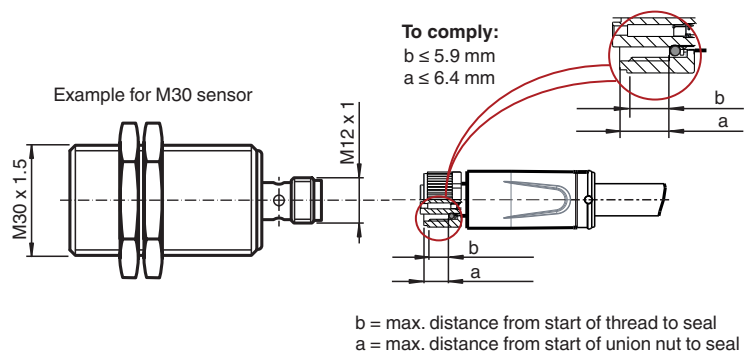


Wire colors in accordance with EN 60947-5-6

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

Installation

Requirement for cable socket to achieve IP degree of protection



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