

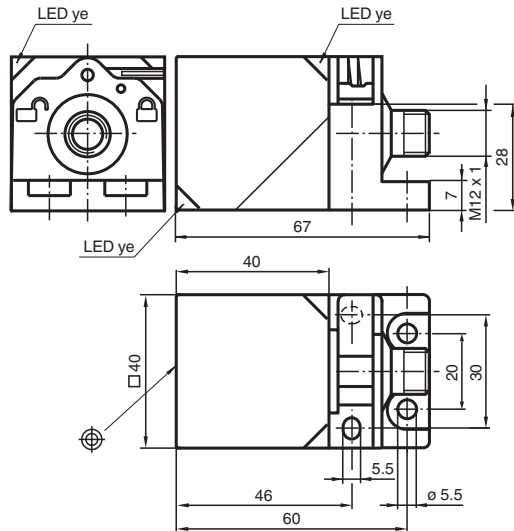


Inductive sensor NCB20-L2-N0-V1

- Sensor head bidirectional and rotatable
- 20 mm flush
- Quick mounting bracket
- 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	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

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

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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 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
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
NEPSI approval		
NEPSI certificate		GYJ16.1394X
CML approval		
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

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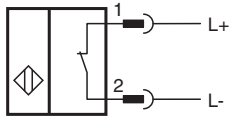
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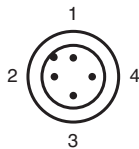
Technical Data

Number of pins	4
Mass	130 g
General information	
Use in the hazardous area	see instruction manuals

Connection



Connection Assignment

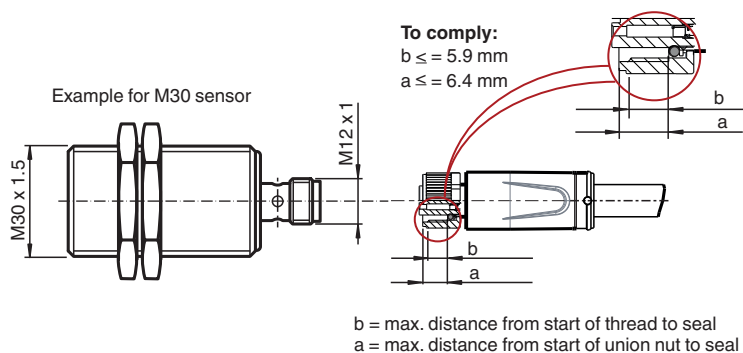


Wire colors in accordance with EN 60947-5-6

1	BN	(brown)
2	BU	(blue)





Installation

Requirement for male cordset to achieve IP degree of protection



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Accessories

	V1-G-N-2M-PUR	Female cordset single-ended M12 straight A-coded, 2-pin, PUR cable blue, NAMUR
	V1-W-N-2M-PUR	Female cordset single-ended M12 angled A-coded, 2-pin, PUR cable blue, NAMUR
	MHW 01	Modular mounting bracket
	KCD2-E2L	Sensor output interface terminal with lead breakage monitoring