

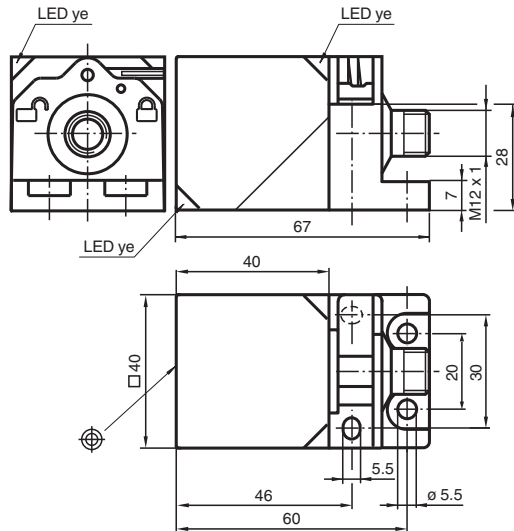


## Inductive sensor NCB20-L2-N0-V1

- 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 $\Omega$ )
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
<b>Functional safety related parameters</b>		
Safety Integrity Level (SIL)		SIL 2
MTTF <sub>d</sub>		1660 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
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
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 <sub>i</sub>	253 V
Rated impulse withstand voltage	U <sub>imp</sub>	4000 V
UL approval		
		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 8.2 V DC
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
<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		PA
Sensing face		PA
Degree of protection		IP66 / IP69K
Connector		
Threading		M12 x 1
Number of pins		4

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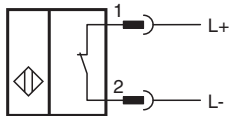
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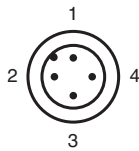
## Technical Data

Mass	130 g
Dimensions	
Height	40 mm
Width	40 mm
Length	67 mm
<b>General information</b>	
Use in the hazardous area	see instruction manuals

## Connection Assignment



## Connection Assignment

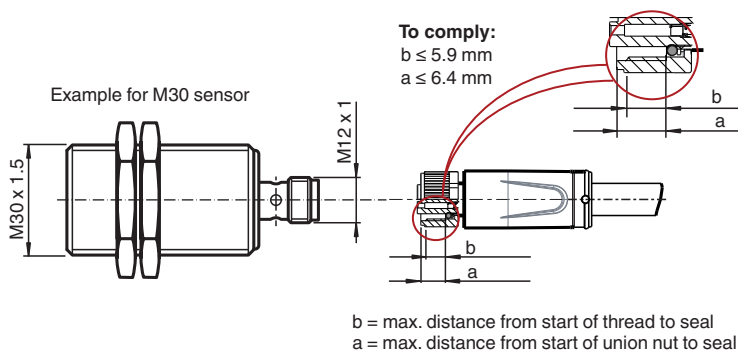


Wire colors in accordance with EN 60947-5-6

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

## Installation

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



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