

# Inductive sensor

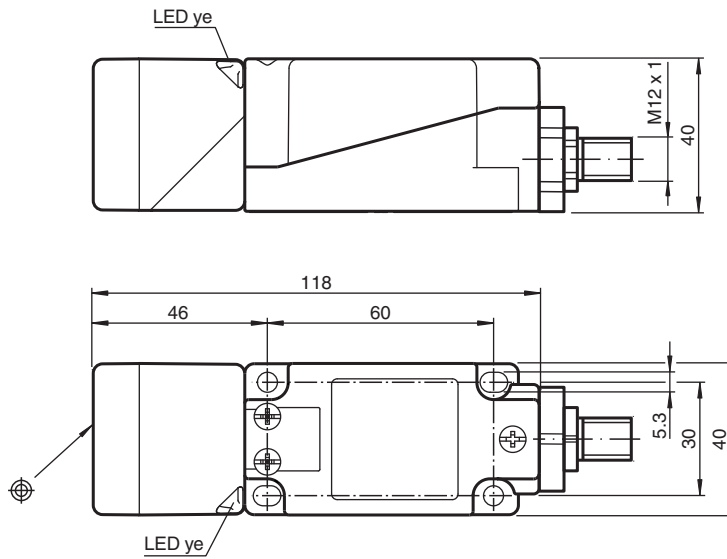
## NBB15-U4K-N0-V1



- Sensor head bidirectional and rotatable
- 15 mm flush



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	15 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 12.15 mm
Actual operating distance	$s_r$	13.5 ... 16.5 mm typ. 15 mm
Reduction factor $r_{Al}$		0.33
Reduction factor $r_{Cu}$		0.31
Reduction factor $r_{304}$		0.74

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

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## Technical Data

Output type		2-wire
<b>Nominal ratings</b>		
Nominal voltage	U <sub>o</sub>	8.2 V (R <sub>i</sub> approx. 1 kΩ)
Switching frequency	f	0 ... 300 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		yes
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		min. 2.2 mA
Measuring plate detected		≤ 1 mA
Switching state indicator		LED, yellow
<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 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<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
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
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CML approval		on request
KCC approval		
Hazardous Location		22-AV4BO-0032X
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/metal
Sensing face		PA
Degree of protection		IP68 / IP69K
Connector		
Threading		M12 x 1
Number of pins		4
Mass		225 g
Note		Tightening torque: 1.8 Nm (housing)
<b>General information</b>		
Use in the hazardous area		see instruction manuals

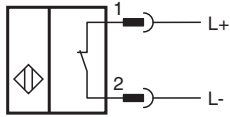
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**Connection**






**Connection Assignment**



Wire colors in accordance with EN 60947-5-6

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

**Accessories**

	<b>MHW 01</b>	Modular mounting bracket
	<b>V1-G-N-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 2-pin, PUR cable blue, NAMUR
	<b>V1-W-N-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 2-pin, PUR cable blue, NAMUR

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