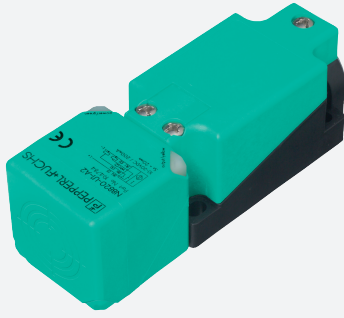


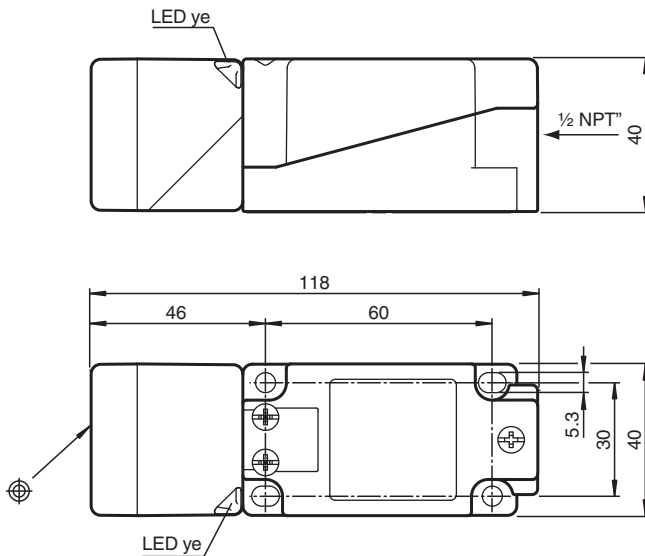
Inductive sensor NBB20-U4K-N0



- Sensor head bidirectional and rotatable
- 20 mm flush
- 2 LEDs indicator for 360° visibility



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 typ. 20 mm
Reduction factor r_{Al}	0.33	
Reduction factor r_{Cu}	0.31	
Reduction factor r_{304}	0.74	
Output type	2-wire	

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 %

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

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PEPPERL+FUCHS

Technical Data

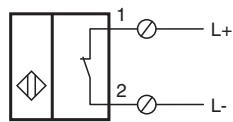
Reverse polarity protection	reverse polarity protected
Short-circuit protection	yes
Current consumption	
Measuring plate not detected	≥ 2.2 mA
Measuring plate detected	≤ 1 mA
Switching state indicator	LED, yellow
Functional safety related parameters	
MTTF _d	1697 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %
Compliance with standards and directives	
Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
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
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
CCC approval	
Hazardous Location	2020322315002303
NEPSI approval	
NEPSI certificate	GYJ16.1394X
CML approval	on request
Ambient conditions	
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications	
Connection type	screw terminals
Information for connection	A maximum of two conductors with the same core cross section may be mounted on one terminal connection! tightening torque 1.2 Nm + 10 %
Core cross section	up to 2.5 mm ²
Minimum core cross-section	without wire end ferrules 0.5 mm ² , with connector sleeves 0.34 mm ²
Maximum core cross-section	without wire end ferrules 2.5 mm ² , with connector sleeves 1.5 mm ²
Housing material	PA/metal
Sensing face	PA
Degree of protection	IP68 / IP69K
Mass	225 g
Dimensions	
Height	40 mm
Width	40 mm
Length	118 mm
Note	Tightening torque: 1.8 Nm (housing)

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Technical Data

General information	
Use in the hazardous area	see instruction manuals

Connection



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