

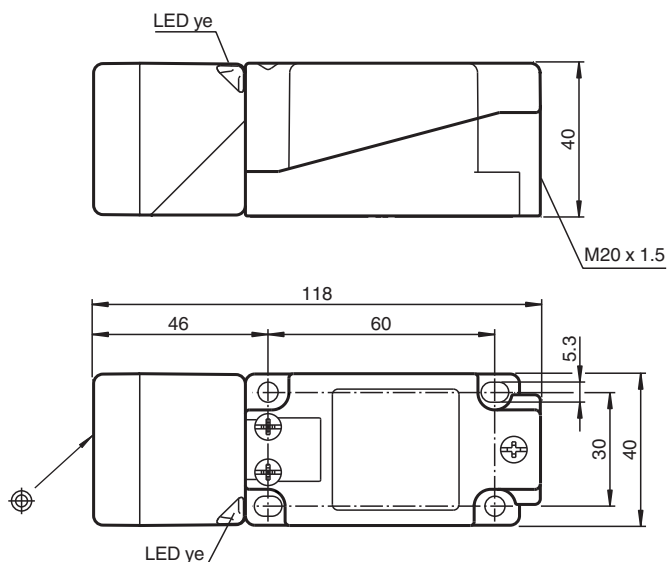


Inductive sensor NBB20-U1K-N0

- Sensor head bidirectional and rotatable
- 20 mm flush



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}	0.37	
Reduction factor r_{Cu}	0.35	
Reduction factor r_{304}	0.79	

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

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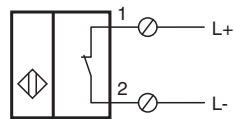
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 **PEPPERL+FUCHS**

Technical Data

Output type		2-wire
Nominal ratings		
Nominal voltage	U _o	8.2 V (R _i approx. 1 kΩ)
Switching frequency	f	0 ... 250 Hz
Hysteresis	H	1 ... 15 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Current consumption		
Measuring plate not detected		≥ 3 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 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		
EAC conformity		TR CU 012/2011
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0451
CCC approval		CCC approval / marking not required for products rated ≤36 V
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 ferrule 0.5 mm ² , with connector sleeves 0.34 mm ²
Maximum core cross-section		without wire end ferrule 2.5 mm ² , with connector sleeves 1.5 mm ²
Connection (system side)		screw terminals, M20 x 1.5 cable gland, usable thread length 9.1 mm, screw-in depth max. 9.1 mm
Housing material		PA
Sensing face		PA
Degree of protection		IP66 / IP68 / IP69K
Mass		225 g
Note		Tightening torque: 1.8 Nm (housing)
General information		
Use in the hazardous area		see instruction manuals

Connection



Accessories

	MHW 01	Modular mounting bracket
	MH 04-2057B	Mounting aid for VariKont and +U1+
	KCD2-SR-Ex1.LB	24 V DC
	KCD2-E2L	Sensor output interface terminal with lead breakage monitoring

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