

Inductive sensor

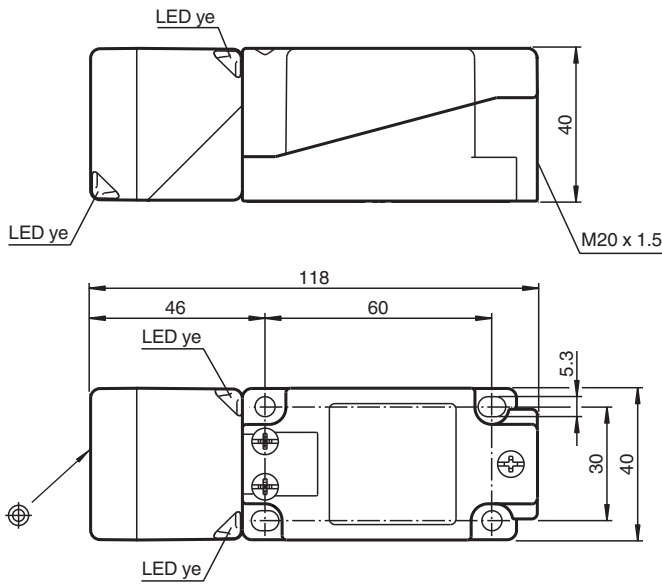
NBB20-U1-Z2



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



Dimensions



Technical Data

General specifications

Switching function		Normally open/closed (NO/NC)
Output type		Two-wire
Rated operating distance	s_n	20 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 16.2 mm
Actual operating distance	s_r	18 ... 22 mm typ. 20 mm
Reduction factor r_{AI}		0.3
Reduction factor r_{Cu}		0.3

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

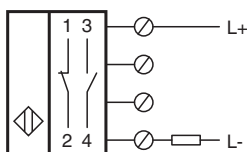
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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Technical Data

Reduction factor r_{304}		0.7
Output type		2-wire
Nominal ratings		
Operating voltage	U_B	5 ... 60 V DC
Switching frequency	f	0 ... 250 Hz
Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		yes
Voltage drop	U_d	≤ 5 V
Voltage drop at I_L		
Voltage drop $I_L = 100$ mA, switching element on	U_d	... 5 V
Operating current	I_L	2 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA
Switching state indicator		2 LED, yellow
Functional safety related parameters		
MTTF _d		1162 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
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		
UL approval		cULus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °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
Housing material		PA/metal with epoxy powder coating
Sensing face		PA
Housing base		plastic
Degree of protection		IP68 / IP69K
Mass		225 g
Note		Tightening torque: 1.8 Nm (housing)

Connection



Accessories

	V1-M20-80	Receptacles, M12/M20; plastic version
	MHW 01	Modular mounting bracket
	MH 04-2681F	Mounting aid for VariKont, +U1+ and +U9*