

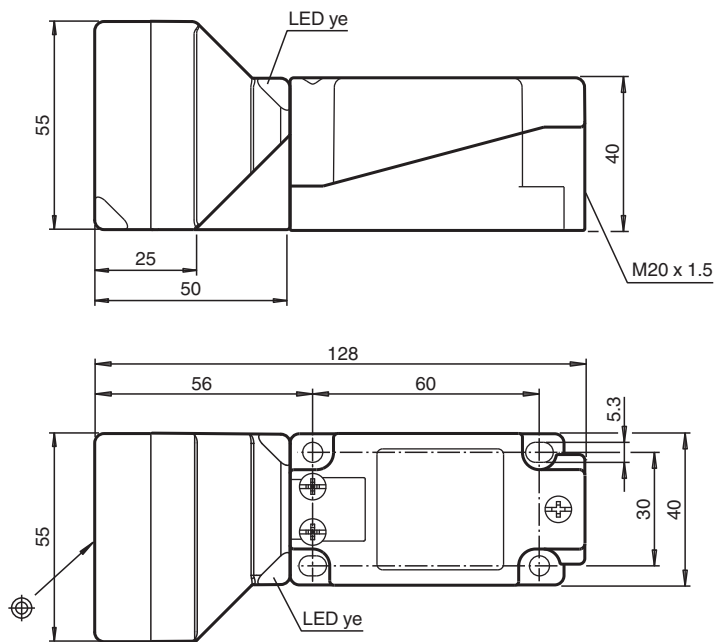


## Inductive sensor NBN40-U1L-Z2

- Sensor head bidirectional and rotatable
- Basic series
- 40 mm non-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	$s_n$	40 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 32.4 mm
Actual operating distance	$s_r$	36 ... 44 mm typ. 40 mm
Reduction factor $r_{AI}$		0.39
Reduction factor $r_{Cu}$		0.37

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

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## Technical Data

Reduction factor $r_{304}$		0.76
Output type		2-wire
<b>Nominal ratings</b>		
Operating voltage	$U_B$	5 ... 60 V DC
Switching frequency	$f$	0 ... 100 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 5$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 100$ mA, switching element on	$U_d$	... 5 V
Rated insulation voltage	$U_{BIS}$	60 V
Operating current	$I_L$	2 ... 200 mA
Off-state current	$I_r$	0 ... 1 mA typ. 0.7 mA
Switching state indicator		2 LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1170 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
<b>Approvals and certificates</b>		
Protection class		
		II
Rated insulation voltage	$U_i$	60 V
Rated impulse withstand voltage	$U_{imp}$	800 V
UL approval		cULus Listed, General Purpose
<b>Ambient conditions</b>		
Ambient temperature		
		-25 ... 85 °C (-13 ... 185 °F)
Storage temperature		
		-25 ... 85 °C (-13 ... 185 °F)
<b>Mechanical specifications</b>		
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 <sup>2</sup>
Minimum core cross-section		
		without wire end ferrule 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>
Maximum core cross-section		
		without wire end ferrule 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>
Housing material		
		PA
Sensing face		
		PA
Housing base		
		plastic
Degree of protection		
		IP68 / IP69K
Mass		
		225 g
Note		
		Tightening torque: 1.8 Nm (housing)

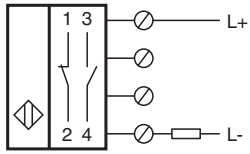
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Connection



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