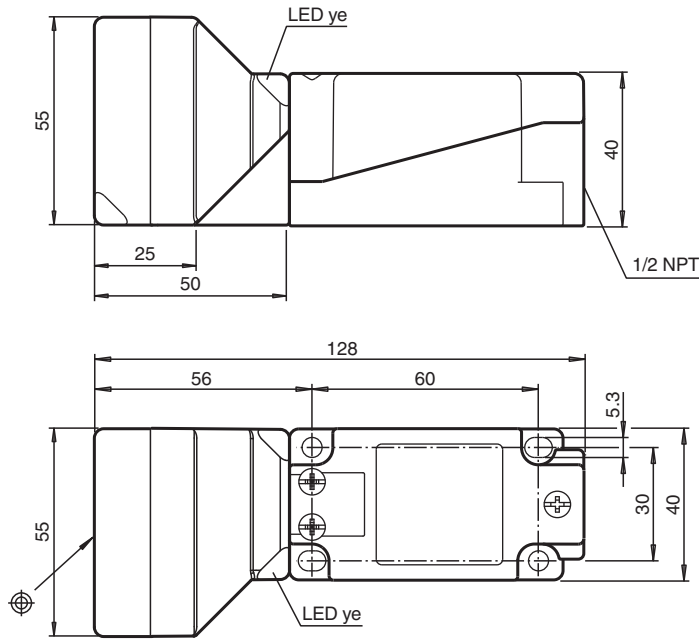


## Inductive sensor NBN40-U4L-Z2

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



### Dimensions



### Technical Data

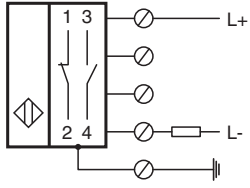
#### General specifications

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 $r_{Al}$		0.39
Reduction factor $r_{Cu}$		0.37
Reduction factor $r_{304}$		0.76
Output type		2-wire

## Technical Data

Nominal ratings		
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
Functional safety related parameters		
MTTF <sub>d</sub>		1170 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
Protection class		II
Rated insulation voltage	$U_i$	60 V
Rated impulse withstand voltage	$U_{imp}$	800 V
UL approval		cULus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Storage 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 <sup>2</sup>
Minimum core cross-section		without wire end ferrules 0.5 mm <sup>2</sup> , with connector sleeves 0.34 mm <sup>2</sup>
Maximum core cross-section		without wire end ferrules 2.5 mm <sup>2</sup> , with connector sleeves 1.5 mm <sup>2</sup>
Housing material		PA/metal
Sensing face		PA
Housing base		metal
Degree of protection		IP68 / IP69K
Mass		225 g
Dimensions		
Height		55 mm
Width		55 mm
Length		128 mm
Note		Tightening torque: 1.8 Nm (housing)

## Connection



Release date: 2025-06-05 Date of issue: 2025-06-05 Filename: 233002\_eng.pdf