

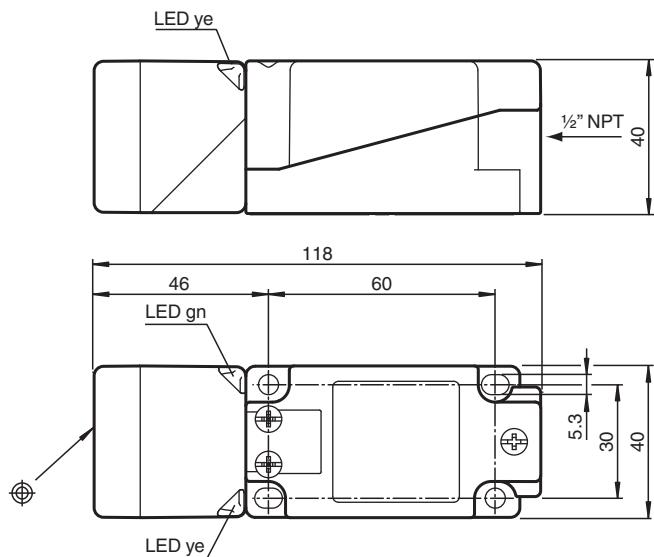
## Inductive sensor

### NBB15-U4-Z2

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



## Dimensions



## Technical Data

Release date: 2024-05-27 Date of issue: 2024-05-28 Filename: 203032\_eng.pdf

### General specifications

Switching function	Normally open/closed (NO/NC)	
Output type	Two-wire	
Rated operating distance	$s_n$	15 mm
Installation	flush	
Output polarity	DC	
Assured operating distance	$s_a$	0 ... 12.15 mm
Actual operating distance	$s_r$	13.5 ... 16.5 mm typ. 15 mm
Reduction factor $r_{AI}$	0.3	
Reduction factor $r_{Cu}$	0.3	
Reduction factor $r_{304}$	0.7	
Output type	2-wire	

### Nominal ratings

Operating voltage	$U_B$	5 ... 60 V
Switching frequency	$f$	0 ... 400 Hz

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

Hysteresis	H	typ. 5 %
Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		yes
Voltage drop	U <sub>d</sub>	≤ 5 V
Voltage drop at I <sub>L</sub>		
Voltage drop I <sub>L</sub> = 100 mA, switching element on	U <sub>d</sub>	... 5 V
Operating current	I <sub>L</sub>	2 ... 200 mA
Off-state current	I <sub>r</sub>	0 ... 0.5 mA
Switching state indicator		2 LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1133 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient 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 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 with epoxy powder coating
Sensing face		PA
Housing base		metal
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)

## Connection

