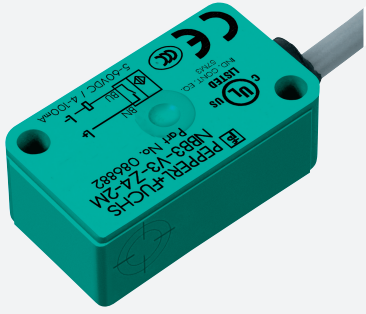


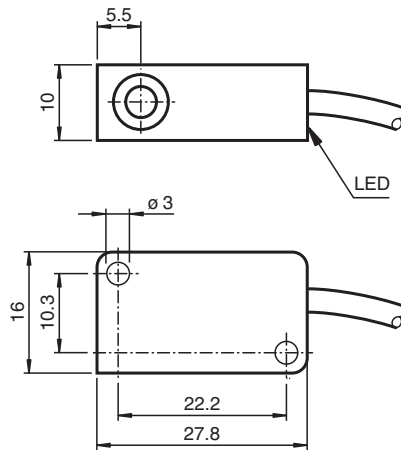
# Inductive sensor NBB3-V3-Z4-2M



- 3 mm flush
- 2-wire DC



## Dimensions



## Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		Two-wire
Rated operating distance	$s_n$	3 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 2.4 mm
Actual operating distance	$s_r$	2.7 ... 3.3 mm typ.
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.35
Reduction factor $r_{304}$		0.8
Reduction factor $r_{Brass}$		0.5
Output type		2-wire
Nominal ratings		
Operating voltage	$U_B$	5 ... 60 V DC
Switching frequency	$f$	0 ... 2000 Hz
Hysteresis	$H$	typ. 0.2 mm

Release date: 2022-05-25 Date of issue: 2022-05-25 Filename: 301160\_eng.pdf

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

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## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		no
Inductive overvoltage protection		yes
Voltage drop	$U_d$	$\leq 4$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 10$ mA, switching element on	$U_d$	3.4 ... 3.9 V typ. 3.6 V
Operating current	$I_L$	4 ... 100 mA
Lowest operating current	$I_m$	4 mA
Off-state current	$I_r$	0.4 ... 0.55 mA typ. 0.46 mA
Time delay before availability	$t_v$	$\leq 1$ ms
Switching state indicator		LED, yellow
<b>Limit data</b>		
Tightening torque, fastening screws		0.4 Nm
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1552 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 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus 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		cablc PVC , 2 m
Core cross section		0.14 mm <sup>2</sup>
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
<b>Cable</b>		
Cable diameter		3 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter

## Connection

