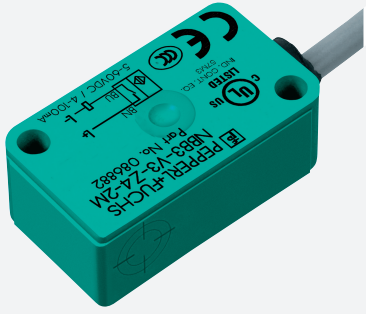


Inductive sensor

NBB3-V3-Z4-3G-3D



- 3 mm flush
- 2-wire DC
- 60 V DC output
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)



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

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

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PEPPERL+FUCHS

Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		no
Inductive overvoltage protection		yes
Voltage drop	U_d	≤ 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	≤ 1 ms
Switching state indicator		LED, yellow
Limit data		
Tightening torque, fastening screws		0.4 Nm
Functional safety related parameters		
MTTF _d		1552 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		
IECEX approval		
Equipment protection level Gc (ec)		IECEX TUR 21.0019X
Equipment protection level Dc (tc)		IECEX TUR 21.0020X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8525 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8526 X
UL approval		cULus Listed, General Purpose
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Connection type		cable PVC , 130 mm
Core cross section		0.14 mm ²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Bending radius		> 10 x cable diameter
General information		
Use in the hazardous area		see instruction manuals

Connection

