

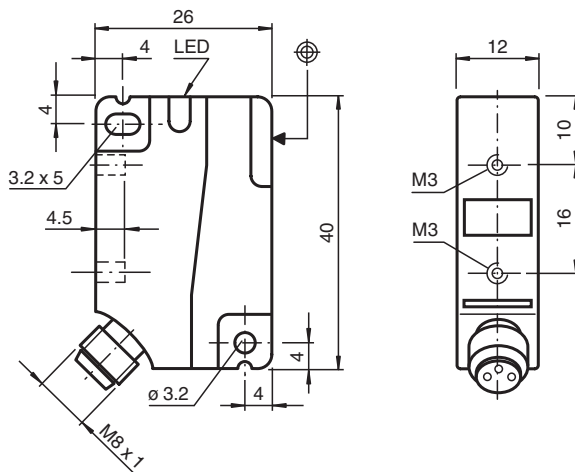


Inductive sensor NBN8-F1-E3-V3

- 8 mm non-flush
- 3-wire DC



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		PNP
Rated operating distance	s_n	8 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 6.48 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.45
Reduction factor r_{304}		0.7

Release date: 2022-05-18 Date of issue: 2022-05-18 Filename: 184380_eng.pdf

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

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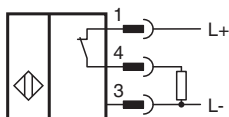
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Technical Data

Reduction factor r_{Brass}		0.55
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1400 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 2.5 V
Operating current	I_L	0 ... 250 mA
Off-state current	I_r	0 ... 0.01 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_o	≤ 15 mA
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1640 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
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
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		Connector plug M8 x 1 , 3-pin
Housing material		PA
Sensing face		PA
Degree of protection		IP67
Tightening torque, fastening screws		Threading M3 max: 1.1 Nm

Connection





Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

Accessories

	V3-WM-2M-PUR	Female cordset single-ended M8 angled A-coded, 3-pin, PUR cable grey
	V3-GM-2M-PUR	Female cordset single-ended M8 straight A-coded, 3-pin, PUR cable grey

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