

Inductive sensor

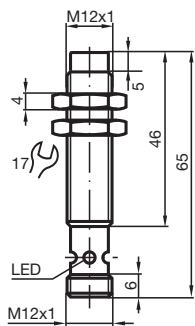
NBN4-12GM50-E2-C-V1



- 4 mm non-flush
- Weld Immune



Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	4 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Output type		3-wire
Nominal ratings		
Operating voltage	U_B	10 ... 30 V DC

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

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Technical Data

Switching frequency	f	0 ... 1200 Hz
Hysteresis	H	typ. 5%
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
No-load supply current	I_0	≤ 15 mA
Constant magnetic field	B	200 mT
Alternating magnetic field	B	200 mT
Switching state indicator		Multihole-LED, yellow

Functional safety related parameters

MTTF _d	990 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

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

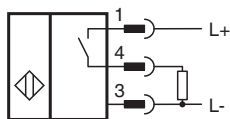
Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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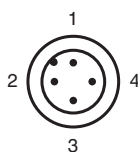
Mechanical specifications

Connection type	Connector plug M12 x 1 , 4-pin
Core cross-section	-
Housing material	Brass, PTFE coated
Sensing face	PPS
Degree of protection	IP67

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Accessories

	BF 12	Mounting flange, 12 mm
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-G-OR2M-POC	Female cordset single-ended M12 A-coded 4-pin, TPE cable welding-bead resistant orange
	V1-W-OR2M-POC	Female cordset single-ended M12 A-coded 4-pin, TPE cable welding-bead resistant orange