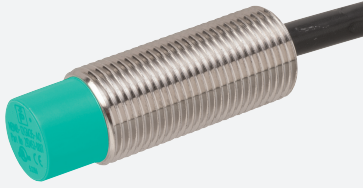


Inductive sensor

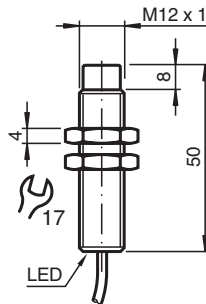
NBN7-12GM50-E2-M



- 7 mm non-flush
- Extended temperature range
-40 ... +85 °C
- Increased noise immunity 100 V/m
- E1-Type approval
- With increased sealing, protection class
IP68 / IP69K
- Highly shock and vibration resistant



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	7 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	s_a	0 ... 5.67 mm
Reduction factor r_{Al}		0.5
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.7
Reduction factor r_{Brass}		0.5
Output type		3-wire

Nominal ratings

Operating voltage	U_B	5 ... 60 V
Switching frequency	f	0 ... 1500 Hz
Hysteresis	H	typ. 5 %

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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		pulsing
Inductive overvoltage protection		yes
Surge suppression		yes
Voltage drop	U_d	$\leq 2 \text{ V}$
Rated insulation voltage	U_{BIS}	60 V
Operating current	I_L	0 ... 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μA at 25 °C
No-load supply current	I_0	$\leq 7 \text{ mA}$
Time delay before availability	t_v	$\leq 200 \text{ ms}$
Switching state indicator		LED, yellow

Functional safety related parameters

MTTF _d		1006 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, Class 2 Power Source
CSA approval		cCSAus Listed, General Purpose, Class 2 Power Source
CCC approval		Certified by China Compulsory Certification (CCC)
E1 Type approval		10R-04

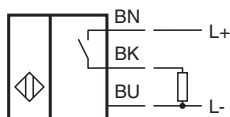
Ambient conditions

Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type		cabl PUR , 2 m
Core cross-section		3 x 0.75 mm ²
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Cable		
Cable diameter		6 mm $\pm$ 0.2 mm
Bending radius		> 6 x cable diameter
Mass		120 g

Connection



Mounting

Interference immunity in accordance with
DIN ISO 11452-2: 100 V/m
Frequency band 20 MHz up to 2 GHz

Mains-borne interference in accordance with ISO 7637-2: Pulse

	1	2a	2b	3 a	3b	4	5
Severity level	III	III	III	III	III	III	III
Failure criterion	C	A	C	A	A	A	B

EN 61000-4-2:	CD: 8 kV / AD: 15 kV
Severity level	IV IV
EN 61000-4-3:	30 V/m (80...2500 MHz)
Severity level	IV
EN 61000-4-4:	2 kV
Severity level	III
EN 61000-4-6:	10 V (0.01...80 MHz)
Severity level	III
EN 55011:	Class A

Accessories

	EXG-12	Quick mounting bracket with dead stop
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