

Inductive sensor

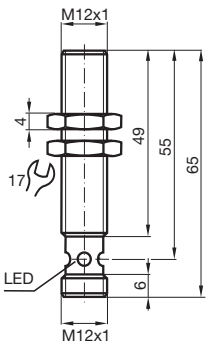
NBB4-12GM50-E2-V1-3G-3D



- Increased operating distance
- 4 mm flush
- ATEX-approval for zone 2 and zone 22



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	s_n	4 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 3.24 mm
Reduction factor r_{Al}		0.45
Reduction factor r_{Cu}		0.35
Reduction factor r_{304}		0.7
Output type		3-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 1000 Hz

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

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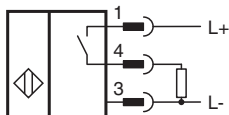
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Technical Data

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 ... 150 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.1 μ A at 25 °C
Off-state current $T_U = 40$ °C, switching element off		\leq
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 5 ms
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1820 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		
ATEX approval		
Equipment protection level Gc (nA)		PF15CERT3754X
Equipment protection level Dc (tc)		PF15CERT3774X
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
Marine approval		DNVGL TAA0000160
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Cable version		PBT
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
General information		
Use in the hazardous area		see instruction manuals

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
	EXG-12	Quick mounting bracket with dead stop

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