

Inductive sensor

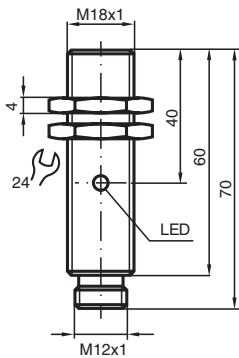
NBB5-18GM60-A2-V1-3G-3D



- 5 mm flush
- ATEX-/IECEX-approvals for zone 2/22 (Ex ec/tc)
- Polarity reversal protected



Dimensions



Technical Data

General specifications

Switching function		complementary
Output type		PNP
Rated operating distance	s_n	5 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 4.05 mm
Reduction factor r_{AI}		0.25
Reduction factor r_{Cu}		0.15
Reduction factor r_{304}		0.66
Output type		4-wire

Nominal ratings

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 800 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	U_d	≤ 3 V

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

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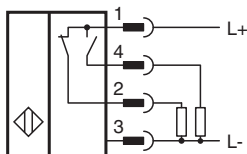
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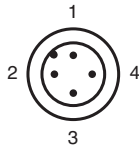
Technical Data

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	$\leq$ 20 mA
Switching state indicator		LED, yellow
Safety-relevant product characteristics		
MTTF _d		1138 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEX approval		
Equipment protection level Gc (ec)		IECEX TUR 21.0017X
Equipment protection level Dc (tc)		IECEX TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		
		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
Marine approval		DNVGL TAA0000160
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67
Connector		
Threading		M12 x 1
Number of pins		4
Mass		67 g
Dimensions		
Length		70 mm
Diameter		18 mm
General information		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Installation

Requirement for cable socket to achieve IP degree of protection

