

# Inductive sensor

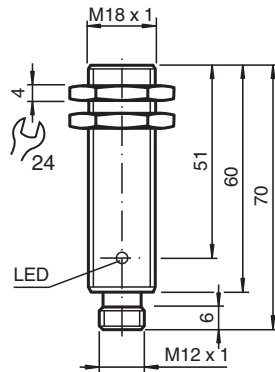
## NBB8-18GM60-A2-V1



- 8 mm flush
- Increased operating distance



### Dimensions



### Technical Data

#### General specifications

Switching function		complementary
Output type		PNP
Rated operating distance	$s_n$	8 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 6.48 mm ( -25 ... 70 °C (-13 ... 158 °F) ) 0 ... 6.08 mm ( -40 ... -25 °C (-40 ... -13 °F) )
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		0.7
Output type		4-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 500 Hz
Hysteresis	$H$	typ. 5%
Reverse polarity protection		reverse polarity protected

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

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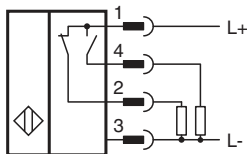
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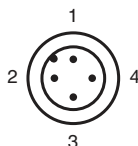
## Technical Data

Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3\text{ V}$
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C
No-load supply current	$I_0$	$\leq 25\text{ mA}$
Time delay before availability	$t_v$	$\leq 20\text{ ms}$
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1216 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
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
<b>Approvals and certificates</b>		
EAC conformity		TR CU 020/2011
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated $\leq 36\text{ V}$
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67

## Connection



## Connection Assignment







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Wire colors in accordance with EN 60947-5-2

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

## Accessories

	<b>BF 18</b>	Mounting flange, 18 mm
	<b>EXG-18</b>	Quick mounting bracket with dead stop
	<b>V1-G-2M-PUR</b>	Female cordset, M12, 4-pin, PUR cable
	<b>V1-W-2M-PUR</b>	Female cordset, M12, 4-pin, PUR cable

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