

# Inductive sensor

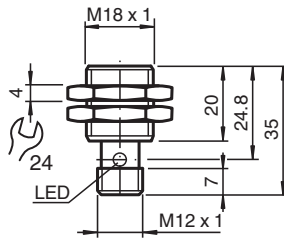
## NBB5-18GM20-E2-V1



- 5 mm flush
- Extended temperature range



### Dimensions



### Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	5 mm
Installation		flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 4.05 mm ( -25 ... 70 °C ( -13 ... 158 °F ) ) 0 ... 3.8 mm ( -40 ... -25 °C ( -40 ... -13 °F ) )
Reduction factor $r_{Al}$		0.2
Reduction factor $r_{Cu}$		0.15
Reduction factor $r_{304}$		0.62
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	10 ... 30 V
Switching frequency	$f$	0 ... 1000 Hz
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing

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

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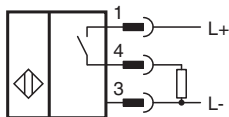
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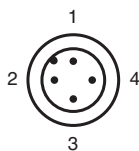
## Technical Data

Voltage drop	$U_d$	$\leq 3 \text{ V}$
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.1 $\mu\text{A}$ at 25 °C
No-load supply current	$I_0$	$\leq 20 \text{ mA}$
Switching state indicator		Multihole-LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		2210 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>		
UL approval		cULus 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



Wire colors in accordance with EN 60947-5-2

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