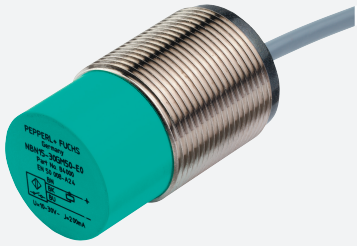


# Inductive sensor

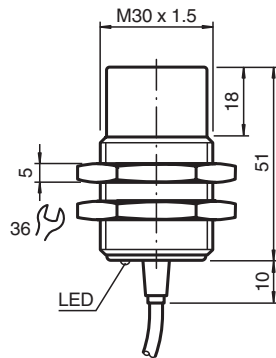
## NBN20-30GM50-EI-M1



- 20 mm non-flush
- Extended temperature range  
-40 ... +85 °C
- Digital current output
- E1-Type approval



### Dimensions



### Technical Data

General specifications		
Output type		Digital current output
Rated operating distance	$s_n$	20 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 16.2 mm
Actuating element		mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 60 mm x 60 mm x 1 mm
Reduction factor $r_{Al}$		0.45
Reduction factor $r_{Cu}$		0.4
Reduction factor $r_{304}$		0.7
Reduction factor $r_{Brass}$		0.45
Output type		3-wire
Nominal ratings		
Operating voltage	$U_B$	9 ... 30 V DC
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	2 ... 15 %

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

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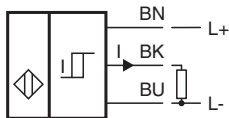
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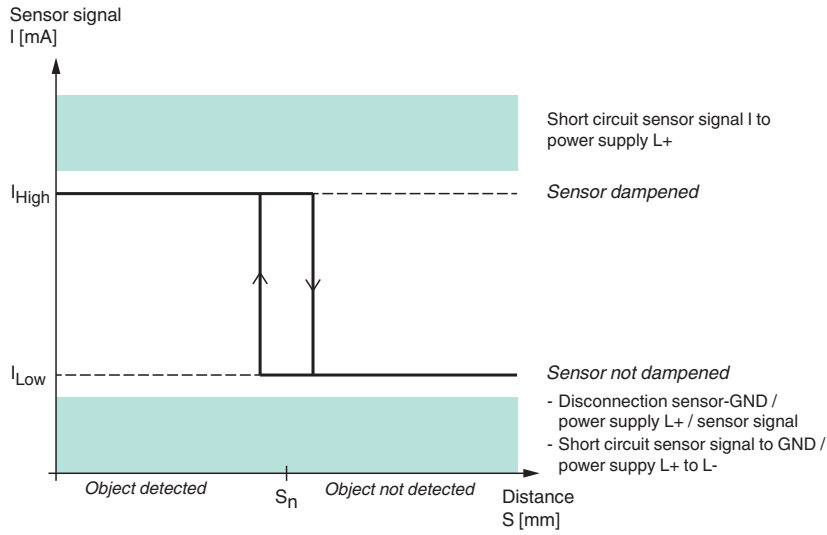
## Technical Data

Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Temperature drift		≤ 10 %
Time delay before availability	$t_v$	≤ 5 ms
Load resistor		100 ... 250 Ohm
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1545 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Digital output</b>		
Output value		object detected: 10 mA ± 1 mA object not detected: 5 mA ± 1 mA
<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, Class 2 Power Source
E1 Type approval		10R-04
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 85 °C (-40 ... 185 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		cablE PUR , 2 m
Core cross section		3 x 0.34 mm <sup>2</sup>
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP68 / IP69K
Mass		159 g
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery

## Connection



## Characteristic Curve



## Accessories

	<b>BF 30</b>	Mounting flange, 30 mm
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