

# Inductive sensor

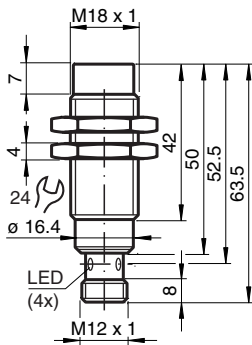
## NMN20-18GH50-E2-V1



- 20 mm non-flush
- Active surface metal
- One-piece housing with stainless steel (V4A; 1.4435)



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
Rated operating distance	$s_n$	20 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	0 ... 16.2 mm
Reduction factor $r_{Al}$		1
Reduction factor $r_{Cu}$		0.9
Reduction factor $r_{304}$		0.3 (0.6 of material thickness 2 mm)
Reduction factor $r_{S137}$		1
Output type		3-wire

#### Nominal ratings

Installation conditions

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

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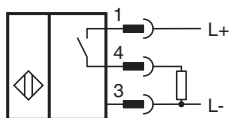
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## Technical Data

A		34 mm (mild steel) 36 mm (stainless steel) 20 mm (aluminum) 22 mm (brass)
B		41 mm
C		60 mm
F		200 mm
Operating voltage	$U_B$	10 ... 30 V
Switching frequency	f	0 ... 200 Hz
Hysteresis	H	3 ... 15 typ. 5 %
Reverse polarity protection		yes
Short-circuit protection		yes
Voltage drop	$U_d$	$\leq 2$ V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	$\leq 0.1$ mA
No-load supply current	$I_0$	$\leq 10$ mA
Time delay before availability	$t_v$	$\leq 40$ ms
Switching state indicator		LED, yellow
<b>Limit data</b>		
Operating pressure statically		60 bar (870.2 psi) max.
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		655 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 $\leq 36$ V
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4435 / AISI 316L
Sensing face		Stainless steel 1.4435 / AISI 316L
Degree of protection		IP68 / IP69K
Mass		24 g

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

## Installation



## Accessories

	<b>BF 18</b>	Mounting flange, 18 mm
	<b>V1-G-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
	<b>V1-W-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey

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