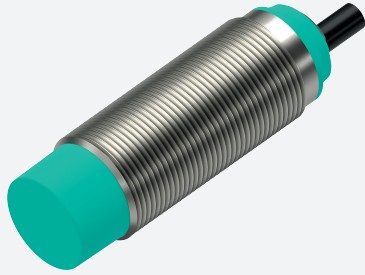


# Inductive sensor

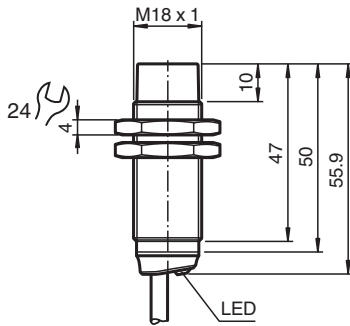
## NBN12-18GM50-E2-5M



- 12 mm non-flush
- Increased operating distance
- Extended temperature range  
-40 ... +85 °C
- Extended operating voltage range
- Flexible use with versatile mounting opportunities



### Dimensions



### Technical Data

General specifications			
Switching function			Normally open (NO)
Output type			PNP
Rated operating distance	$s_n$		12 mm
Installation			non-flush
Output polarity			DC
Assured operating distance	$s_a$		0 ... 9.72 mm
Actuating element			mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 36 mm x 36 mm x 1 mm
Reduction factor $r_{Al}$			0.49
Reduction factor $r_{Cu}$			0.46
Reduction factor $r_{304}$			0.75
Reduction factor $r_{Brass}$			0.55
Output type			3-wire
Nominal ratings			
Operating voltage	$U_B$		5 ... 36 V
Switching frequency	$f$		0 ... 1300 Hz
Hysteresis	$H$		typ. 5 %
Reverse polarity protection			reverse polarity protected
Short-circuit protection			pulsing
Voltage drop	$U_d$		$\leq 1$ V
Operating current	$I_L$		0 ... 200 mA

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

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## Technical Data

Off-state current	$I_r$	max. 20 $\mu$ A
No-load supply current	$I_0$	$\leq$ 10 mA
Time delay before availability	$t_v$	$\leq$ 10 ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1708 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Conformity</b>		
PWIS conformity		VDMA 24364-C1/T100°C-W
<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>		
Protection class		II
Rated insulation voltage	$U_i$	36 V
Rated impulse withstand voltage	$U_{imp}$	500 V
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated $\leq$ 36 V
<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
Housing material		brass , white bronze coated
Sensing face		PBT , green
Degree of protection		IP65 / IP66 / IP67 / IP68
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm $\pm$ 0.15 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm <sup>2</sup>
Length	L	5 m
Mass		191 g
Dimensions		
Length		56 mm
Diameter		18 mm
Mounting		with nuts, M18
Tightening torque		0 ... 30 Nm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery

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## Connection



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