

# Inductive sensor

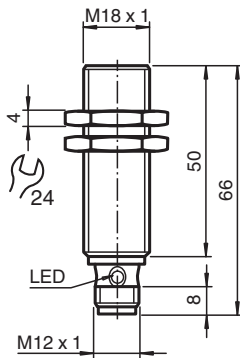
## NJ5-18GM50-E2-V1-3G-3D



- 5 mm flush
- ATEX-/IECEX-approvals for zone 2/22 (Ex ec/tc)
- Stainless steel housing
- Polarity reversal protected



### 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
Actual operating distance	$s_r$	4.5 ... 5.5 mm typ. 5 mm
Reduction factor $r_{Al}$		0.2
Reduction factor $r_{Cu}$		0.13
Reduction factor $r_{304}$		0.62
Reduction factor $r_{Brass}$		0.26
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 2000 Hz
Hysteresis	$H$	3 ... 15 % typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V

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

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## Technical Data

Voltage drop at $I_L$		
Voltage drop $I_L = 200$ mA, switching element on	$U_d$	1 ... 2 V typ. 1.5 V
Operating current	$I_L$	$\leq 200$ mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	$I_0$	$\leq 15$ mA
Time delay before availability	$t_v$	$\leq 100$ ms
Switching state indicator		LED, yellow
<b>Safety-relevant product characteristics</b>		
MTTF <sub>d</sub>		1504 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN IEC 60947-5-2
<b>Approvals and certificates</b>		
IECEX approval		
Equipment protection level Gc (ec)		IECEX TUR 21.0017X
Equipment protection level Dc (tc)		IECEX TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		
		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 200 mA
CCC approval		
Hazardous Location		2024322315005977 2024322315005859
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Connector		
Threading		M12 x 1
Number of pins		3
Mass		60 g
Dimensions		
Length		50 mm
Diameter		18 mm
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

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**Connection Assignment**



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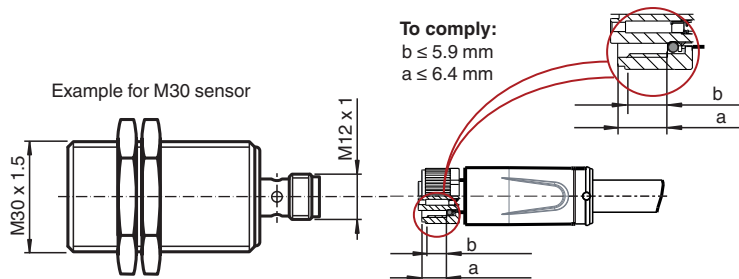


Wire colors in accordance with EN 60947-5-2

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

**Installation**

**Requirement for cable socket to achieve IP degree of protection**



b = max. distance from start of thread to seal  
 a = max. distance from start of union nut to seal

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