

Inductive sensor

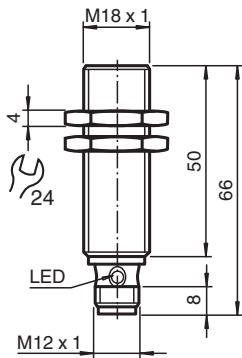
NJ5-18GM50-E2-V1-3G-3D



- 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	≤ 3 V

Release date: 2025-06-13 Date of issue: 2025-06-17 Filename: 70126076_eng.pdf

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	≤ 200 mA
Off-state current	I_r	0 ... 0.5 mA typ. 0.01 mA
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 100 ms
Switching state indicator		LED, yellow
Functional safety related parameters		
MTTF _d		1504 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
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, General Purpose, Class 2 Power Source
CCC approval		
Hazardous Location		2024322315005977 2024322315005859
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
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
General information		
Scope of delivery		2 self locking nuts in scope of delivery
Use in the hazardous area		see instruction manuals

Connection Assignment



Connection Assignment

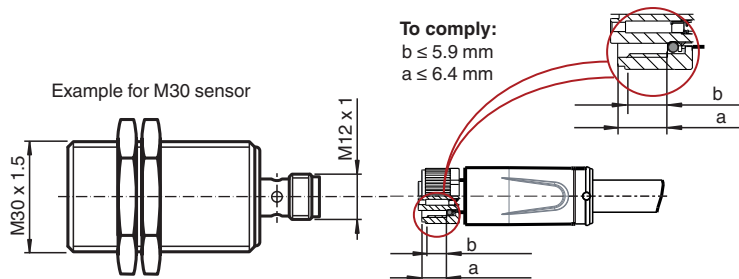


Wire colors in accordance with EN 60947-5-2

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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