

Inductive sensor

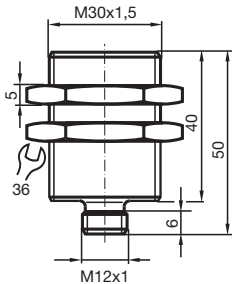
NJ10-30GM-N-V1



- 10 mm flush
- Usable up to SIL 2 acc. to IEC 61508



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	10 mm
Installation		flush
Assured operating distance	s_a	0 ... 8.1 mm
Reduction factor r_{AI}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85
Output type		2-wire

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 300 Hz

Technical Data

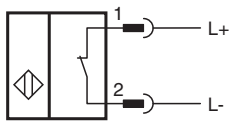
Hysteresis	H	1 ... 10 typ. 5 %
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		≤ 1 mA
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
Approvals and certificates		
EAC conformity		TR CU 012/2011
FM approval		
Control drawing		116-0165
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP65
Equipment protection level Ga		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ 10-30GM-N...
Effective internal capacitance	C _i	max. 140 nF ; a cable length of 10 m is considered.
Effective internal inductance	L _i	max. 100 μH ; a cable length of 10 m is considered.
Ambient temperature		Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate. Note: Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.
Equipment protection level Gb		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1G Ex ia IIC T6...T1 Ga The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ 10-30GM-N...
Effective internal capacitance	C _i	max. 140 nF ; a cable length of 10 m is considered.
Effective internal inductance	L _i	max. 100 μH ; a cable length of 10 m is considered.
Maximum permissible ambient temperature	T _{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.
Equipment protection level Da		
CE marking		[*PD-Z02585A*]
ATEX marking		⊕ II 1D Ex ia IIIC T135°C Da The Ex-related marking can also be printed on the enclosed label.

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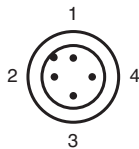
Technical Data

Standards	EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NJ 10-30GM-N...	
Effective internal capacitance	C_i	max. 140 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	max. 100 μ H ; a cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the surface temperature, and the effective internal reactance values can be found on the EC-type-examination certificate. The maximum permissible ambient temperature of the data sheet must be noted, in addition, the lower of the two values must be maintained.
General information		
Use in the hazardous area	see instruction manuals	
Category	1G; 2G	

Connection



Connection Assignment



Wire colors in accordance with EN 60947-5-6

1	BN	(brown)
2	BU	(blue)

Accessories

	V1-G-N-2M-PUR	Female cordset, M12, 2-pin, NAMUR, PUR cable
	V1-W-N-2M-PUR	Female cordset, M12, 2-pin, NAMUR, PUR cable
	BF 30	Mounting flange, 30 mm
	EXG-18	Quick mounting bracket with dead stop

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