



Model Number

NJ1,5-8-N-Y18812

Features

- With special adjustment

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	1.5 mm
Installation		flush
Assured operating distance	s_a	0 ... 0.97 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 V
Switching frequency	f	0 ... 2000 Hz
Hysteresis	H	0.1 mm
Current consumption		
Measuring plate not detected		≥ 2.5 mA
Measuring plate detected		≤ 1.2 mA

Functional safety related parameters

MTTF _d		11467 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %

Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
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Mechanical specifications

Connection type		cable PUR , 6 m
Core cross-section		0.14 mm ²
Housing material		brass
Sensing face		PBT
Degree of protection		IP67
Cable		
Bending radius		> 10 x cable diameter

General information

Use in the hazardous area		see instruction manuals
Category		2G; 3G; 1D

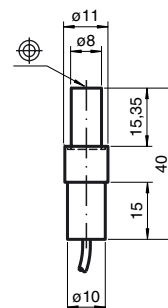
Compliance with standards and directives

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

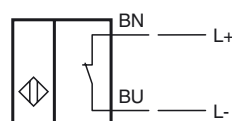
Approvals and certificates

UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose

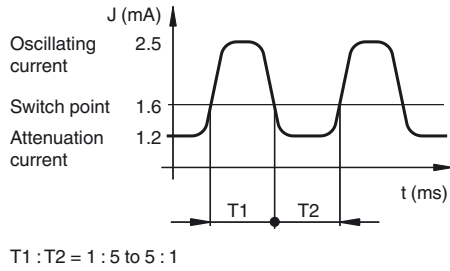
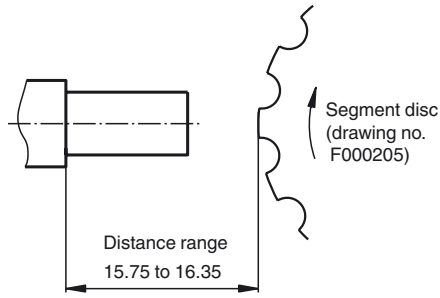
Dimensions



Electrical Connection



Installation Hint



Equipment protection level Gb

CE marking	CE 0102	
ATEX marking	II 2G Ex ia IIC T6...T1 Gb 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	NJ1,5-8-N..	
Effective internal capacitance C_i	≤ 20 nF ; a cable length of 10 m is considered.	
Effective internal inductance L_i	≤ 50 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 temperature class, and the effective internal reactance values can be found on the EC-type examination certificate.	

Equipment protection level Gc (ic)

Certificate	PF 13 CERT 2895 X	
CE marking	CE	

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ATEX marking	⊕ II 3G Ex ic IIC T6...T1 Gc The Ex-significant identification is on the enclosed adhesive label	
Standards	EN 60079-0:2012+A11:2013 EN 60079-11:2012 Ignition protection category "ic" Use is restricted to the following stated conditions	
Effective internal capacitance	C_i	≤ 20 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 50 μ H ; A cable length of 10 m is considered.
Special conditions		
	for $P_i=34$ mW, $I_i=25$ mA, T6	70 °C (158 °F)
	for $P_i=34$ mW, $I_i=25$ mA, T5	85 °C (185 °F)
	for $P_i=34$ mW, $I_i=25$ mA, T4-T1	100 °C (212 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T6	68 °C (154.4 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T5	83 °C (181.4 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T4-T1	100 °C (212 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T6	49 °C (120.2 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T5	64 °C (147.2 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T4-T1	67 °C (152.6 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T6	36 °C (96.8 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T5	42 °C (107.6 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T4-T1	42 °C (107.6 °F)
Equipment protection level Gc (nL)		
Standard conformity	EN 60079-15:2003 Ignition protection category "n" Use is restricted to the following stated conditions	
Effective internal capacitance	C_i	≤ 20 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 50 μ H ; A cable length of 10 m is considered.
General	The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The data stated in the data sheet are restricted by this operating instruction! The special conditions must be observed! The ATEX Directive applies only to the use of apparatus under atmospheric conditions. If you use the device outside atmospheric conditions, consider that the permissible safety parameters should be reduced.	
Special conditions		
	for $P_i=34$ mW, $I_i=25$ mA, T6	70 °C (158 °F)
	for $P_i=34$ mW, $I_i=25$ mA, T5	85 °C (185 °F)
	for $P_i=34$ mW, $I_i=25$ mA, T4-T1	100 °C (212 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T6	68 °C (154.4 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T5	83 °C (181.4 °F)
	for $P_i=64$ mW, $I_i=25$ mA, T4-T1	100 °C (212 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T6	49 °C (120.2 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T5	64 °C (147.2 °F)
	for $P_i=169$ mW, $I_i=52$ mA, T4-T1	67 °C (152.6 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T6	36 °C (96.8 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T5	42 °C (107.6 °F)
	for $P_i=242$ mW, $I_i=76$ mA, T4-T1	42 °C (107.6 °F)
Equipment protection level Da		
CE marking	CE 0102	
ATEX marking	⊕ II 1D Ex ia IIC T135°C Da 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	NJ1,5-8-N..	
Effective internal capacitance	C_i	≤ 20 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 50 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.	

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