



CE
0102

Model Number

NJ0,8-5GM-N-Y287110

Features

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

Accessories

BF 5

Mounting flange, 5 mm

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	0.8 mm
Installation		flush
Assured operating distance	s_a	0 ... 0.65 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)
Operating voltage	U_B	5 ... 25 V
Switching frequency	f	0 ... 5000 Hz
Hysteresis	H	3 %
Suitable for 2:1 technology		yes, Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		≥ 3 mA at nominal voltage
Measuring plate detected		≤ 1 mA at nominal voltage

Functional safety related parameters

MTTF _d	1050 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
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Mechanical specifications

Connection type	cable PVC, 0.085 m
Core cross-section	0.14 mm ²
Housing material	Stainless steel 1.4305 / AISI 303
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	1G; 2G; 1D

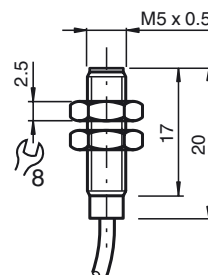
Compliance with standards and directives

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

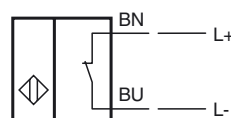
Approvals and certificates

CCC approval	CCC approval / marking not required for products rated ≤ 36 V
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Dimensions



Electrical Connection



Equipment protection level Ga

CE marking	CE 0102	
ATEX marking	II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012, EN 60079-11:2012, EN 60079-26:2007 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NJ 0,8-5GM-N...	
Effective internal capacitance	C_i	$\leq 30 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 50 \text{ }\mu\text{H}$; 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 1127-1:2007 has already been accounted for in the temperature table for category 1.	

Equipment protection level Gb

CE marking	CE 0102	
ATEX marking	II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions	
Appropriate type	NJ 0,8-5GM-N...	
Effective internal capacitance	C_i	$\leq 30 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 50 \text{ }\mu\text{H}$; 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 Da

CE marking	CE 0102	
ATEX marking	II 1D Ex iaD 20 T 108 °C (226.4 °F) The Ex-relevant identification may also be printed on the accompanying adhesive label.	
Standards	IEC 61241-11:2002: draft; prEN61241-0:2002 type of protection intrinsic safety "iD" Use is restricted to the following stated conditions	
Appropriate type	NJ0,8-5GM-N...	
Effective internal capacitance	C_i	$\leq 30 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance	L_i	$\leq 50 \text{ }\mu\text{H}$; a cable length of 10 m is considered.
Special conditions		