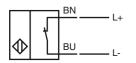
# **CE** 0102 c (UL) us FM **Model Number** NJ2-11-N-Y14235 Features

- Comfort series
- 2 mm flush

## Connection



Subject to modifications without notice Pepperl+Fuchs Group www.pepperl-fuchs.com

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## **Technical Data**

**Dimensions** 

General specifications		
Switching element function		NAMUR, NC
Rated operating distance	s <sub>n</sub>	2 mm
Installation		flush
Output polarity		NAMUR
Assured operating distance	s <sub>a</sub>	0 1.62 mm
Reduction factor r <sub>Al</sub> Reduction factor r <sub>Cu</sub>		0.4
Reduction factor r <sub>304</sub>		0.85
Nominal ratings		0.00
Nominal voltage	Uo	8 V
Switching frequency	f	0 3000 Hz
Hysteresis	Н	0.5 3.5 typ. 2 %
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related paramete	rs	
MTTF <sub>d</sub>		11770 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-25 100 °C (-13 212 °F)
Mechanical specifications		
Connection type		cable PUR, 5 m
Core cross-section		0.34 mm <sup>2</sup>
Housing material		PVDF PVDF
Sensing face Protection degree		IP68
General information		1 00
Use in the hazardous area		see instruction manuals
Category		2G
Compliance with standards and di	rectives	
Standard conformity		
•		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards		EN 60947-5-2:2007
Standards		IEC 60947-5-2:2007
Approvals and certificates		
FM approval		
Control drawing		116-0165F
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
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# ATEX 2G

Instruction

**Device category 2G** Directive conformity Standard conformity

CE marking

Ex-identification

EC-Type Examination Certificate Appropriate type Effective internal capacitance C<sub>i</sub> Effective internal inductance L<sub>i</sub> General

Highest permissible ambient temperature

Installation, Comissioning

Maintenance

#### Specific conditions

Protection from mechanical danger

### Manual electrical apparatus for hazardous areas

for use in hazardous areas with gas, vapour and mist 94/9/EG EN 60079-0:2009, EN 60079-11:2007 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions  $C \in 0102$ 

(Ex) II 2G Ex ia IIC T6 Gb

PTB 00 ATEX 2048 X NJ 2-11-N...  $\leq$  45 nF ; a cable length of 10 m is considered.

 $\leq$  50  $\mu$ H ; a cable length of 10 m is considered.

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to!

Directive 94/9/EG and hence also EC-Type Examination Certificates apply in general only to the use of electrical apparatus under atmospheric conditions. The use in ambient temperatures of > 60 °C was tested with regard to hot surfaces

by the mentioned certification authority. If the equipment is not used under atmospheric conditions, a reduction of the permissible minimum ignition energies may have to be taken into consideration.

The temperature ranges, according to temperature class, are given in the EC-Type Examination Certificate.

Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety.

No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.

When used in the temperature range below -20  $^\circ C$  the sensor should be protected from knocks by the provision of an additional housing.

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