



CE
0102

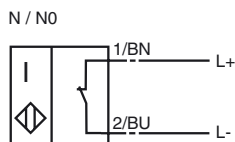
Model Number

NJ2,5-F-N

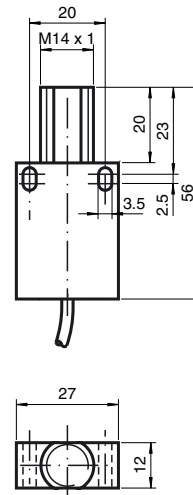
Features

- 2,5 mm not embeddable
- Comfort series

Connection



Dimensions



Technical Data

General specifications

Switching element function	NAMUR NC
Rated operating distance	s_n 2.5 mm
Installation	not embeddable
Output polarity	NAMUR
Assured operating distance	s_a 0 ... 2.03 mm
Reduction factor r_{AI}	0.4
Reduction factor r_{Cu}	0.3
Reduction factor r_{V2A}	0.85

Nominal ratings

Nominal voltage	U_o 8 V
Switching frequency	f 0 ... 2000 Hz
Hysteresis	H typ. 5 %
Reverse polarity protection	protected against reverse polarity
Current consumption	
Measuring plate not detected	≥ 3 mA
Measuring plate detected	≤ 1 mA

Standard conformity

EMC in accordance with	IEC / EN 60947-5-2:2004
Standards	DIN EN 60947-5-6 (NAMUR)

Ambient conditions

Ambient temperature	-25 ... 100 °C (248 ... 373 K)
---------------------	--------------------------------

Mechanical specifications

Connection type	2 m, PVC cable
Core cross-section	0.34 mm ²
Housing material	PBT
Sensing face	PBT
Protection degree	IP67

General information

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

ATEX 1G

Instruction

Device category 1G

Directive conformity

Standard conformity

CE symbol

Ex-identification

EC-Type Examination Certificate

Appropriate type

Effective internal capacitance C_i Effective internal inductance L_i

Cable length

Explosion group IIC

General

Highest permissible ambient temperature

Installation, Commissioning

Maintenance

Special conditions

Protection from mechanical danger

Electrostatic charging

Manual electrical apparatus for hazardous areas

for use in hazardous areas with gas, vapour and mist

94/9/EG

EN 50014:1997; EN 50020:1994; EN 50284:1999

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

CE 0102

Ⓔ II 1G EEx ia IIC T6

PTB 00 ATEX 2032 X

NJ 2,5-F-N...

≤ 40 nF ; a cable length of 10 m is considered.

≤ 50 μH ; a cable length of 10 m is considered.

Dangerous electrostatic charges on the fixed connection cable must be taken into account for lengths equal to and exceeding the following values:

7 cm

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. Note: Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1:1997 has already been accounted for in the temperature table for category 1.

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.

The associated apparatus must satisfy the requirements of category ia.

Due to the possible danger of ignition, which can arise due to faults and/or transient currents in the equipotential bonding system, galvanic isolation of the power supply and signal circuit is preferable. Associated apparatus without electrical isolation must only be used if the appropriate requirements of IEC 60079-14 are met.

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°C the sensor should be protected from knocks by the provision of an additional housing.

When used in group IIC non-permissible electrostatic charges should be avoided on the plastic housing parts.

ATEX 2G

Instruction

Device category 2G

Directive conformity

Standard conformity

CE symbol

Ex-identification

EC-Type Examination Certificate

Appropriate type

Effective internal capacitance C_i Effective internal inductance L_i

General

Highest permissible ambient temperature

Installation, Commissioning

Maintenance

[Fett]Special conditions

Protection from mechanical danger

Manual electrical apparatus for hazardous areasfor use in hazardous areas with gas, vapour and mist
94/9/EG

EN 50014:1997, EN 50020:1994

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

CE 0102

II 1G EEx ia IIC T6

PTB 00 ATEX 2032 X

NJ 2,5-F-N...

 ≤ 40 nF ; a cable length of 10 m is considered. ≤ 50 μ 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 °C the sensor should be protected from knocks by the provision of an additional housing.