



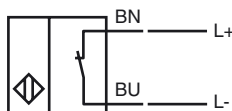
Model Number

NJ5-11-N

Features

- Comfort series
- 5 mm not embeddable

Connection



Accessories

BF 11

Mounting flange, 11 mm

Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|----------------|
| Switching element function | | NAMUR, NC |
| Rated operating distance | s_n | 5 mm |
| Installation | | not embeddable |
| Output polarity | | NAMUR |
| Assured operating distance | s_a | 0 ... 4.05 mm |
| Reduction factor r_{AI} | | 0.4 |
| Reduction factor r_{Cu} | | 0.3 |
| Reduction factor r_{303} | | 0.85 |

Nominal ratings

| | | |
|------------------------------|-------|---|
| Nominal voltage | U_o | 8.2 V (R_i approx. 1 k Ω) |
| Switching frequency | f | 0 ... 3000 Hz |
| Hysteresis | H | typ. % |
| Suitable for 2:1 technology | | yes, Reverse polarity protection diode not required |
| Current consumption | | |
| Measuring plate not detected | | ≥ 3 mA |
| Measuring plate detected | | ≤ 1 mA |

Ambient conditions

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

Mechanical specifications

| | | |
|--------------------|--|----------------------|
| Connection type | | cablc PVC, 2 m |
| Core cross-section | | 0.34 mm ² |
| Housing material | | PVDF |
| Sensing face | | PVDF |
| Protection degree | | IP68 |

General information

| | | |
|---------------------------|--|-------------------------|
| Use in the hazardous area | | see instruction manuals |
| Category | | 2G |

Compliance with standards and directives

| | | |
|---------------------|--|---|
| Standard conformity | | |
| NAMUR | | EN 60947-5-6:2000 IEC 60947-5-6:1999 |
| Standards | | EN 60947-5-2:2007 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 |
| CCC approval | | Products with a maximum operating voltage of ≤ 36 V do not bear a CCC marking because they do not require approval. |

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

Special 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 60079-0:2006, EN 60079-11:2007

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions

CE 0102

 II 2G Ex ia IIC T6

PTB 00 ATEX 2048 X

NJ 5-11-N...

 ≤ 45 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.