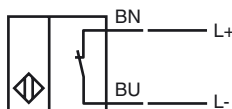
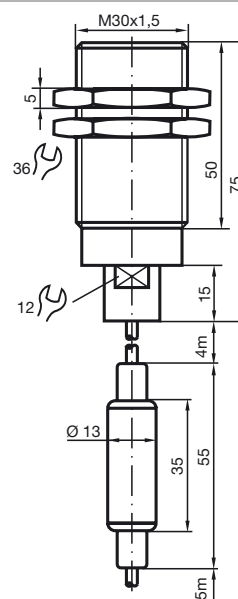


**Model Number**

NJ4-30GM-N-200-Y128006

Features

- Temperature range
0 ... 200 °C (0 ... 392 °F)
- 4 mm flush

Connection**Dimensions****Technical Data****General specifications**

| | | |
|----------------------------|-------|---------------|
| Switching element function | | NAMUR, NC |
| Rated operating distance | s_n | 4 mm |
| Installation | | flush |
| Output polarity | | NAMUR |
| Assured operating distance | s_a | 0 ... 3.04 mm |
| Reduction factor r_{Al} | | 0.4 |
| Reduction factor r_{Cu} | | 0.3 |
| Reduction factor r_{304} | | 0.85 |

Nominal ratings

| | | |
|------------------------------|-------|---------------|
| Nominal voltage | U_o | 8 V |
| Switching frequency | f | 0 ... 1000 Hz |
| Hysteresis | H | typ. % |
| Current consumption | | |
| Measuring plate not detected | | ≥ 3 mA |
| Measuring plate detected | | ≤ 1 mA |

Ambient conditions

| | | |
|---------------------|--|------------------------------|
| Ambient temperature | | 0 ... 200 °C (32 ... 392 °F) |
|---------------------|--|------------------------------|

Mechanical specifications

| | | |
|--------------------|--|---|
| Connection type | | cable SIHF , 5 m |
| Core cross-section | | 0.34 mm ² |
| Housing material | | Stainless steel 1.4305 / AISI 303 |
| Sensing face | | PPS |
| Protection degree | | IP65 |
| Note | | amplifier -25°C...70°C 4 m PTFE cable between amplifier and oscillator |

General information

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

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

ATEX 1G

Instruction

Device category 1G
 Directive conformity
 Standard conformity

CE marking

Ex-identification

EC-Type Examination Certificate
 Appropriate type
 Effective internal capacitance C_i
 Effective internal inductance L_i
 Cable length

Explosion group IIA
 Explosion group IIB
 Explosion group IIC
 General

Highest permissible ambient temperature

Installation, Commissioning

Maintenance

Specific 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 60079-0:2009, EN 60079-11:2007, EN 60079-26:2007
 Ignition protection "Intrinsic safety"
 Use is restricted to the following stated conditions
 C E 0102

⊕ II 1G Ex ia IIC T6 Ga

PTB 00 ATEX 2048 X
 NJ4-30GM-N-200...

≤ 70 nF ; a cable length of 10 m is considered.
 ≤ 100 μ H ; 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:

113 cm
 56 cm
 9 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 1127-1:2007 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.

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding. 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 marking

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

Specific 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 60079-0:2009, EN 60079-11:2007

Ignition protection "Intrinsic safety"

Use is restricted to the following stated conditions


 0102

 II 1G Ex ia IIC T6 Ga

PTB 00 ATEX 2048 X

NJ4-30GM-N-200...

≤ 70 nF ; a cable length of 10 m is considered.

≤ 100 μH ; 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.

The adhesive label provided must be affixed in the immediate vicinity of the sensor!

The surface to which the label is applied must be clean, flat and free from grease!

The affixed adhesive label must be readable and durable, taking account of the possibility of chemical corrosion!

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.

Electrostatic charges must be avoided on the mechanical housing components. Dangerous electrostatic charges on the mechanical housing components can be avoided by incorporating these in the equipotential bonding.