









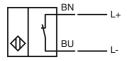
## **Model Number**

NJ0,8-4,5-N

### **Features**

- 0.8 mm flush
- Usable up to SIL2 acc. to IEC 61508

### Connection

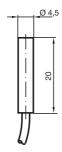


# Accessories

BF 4,5

Mounting flange, 4.5 mm

### **Dimensions**



### **Technical Data**

General specifications		
Switching element function		NAMUR, NC
Rated operating distance	s <sub>n</sub>	0.8 mm
Installation		flush
Output polarity		NAMUR
Assured operating distance	sa	0 0.65 mm
Reduction factor r <sub>Al</sub>		0.4
Reduction factor r <sub>Cu</sub>		0.3
Reduction factor r <sub>304</sub>		0.85

Suitable for 2:1 technology yes , Reverse polarity protection diode not required Current consumption

Measuring plate not detected  $\geq 3 \text{ mA}$ Measuring plate detected  $\leq 1 \text{ mA}$ 

Functional safety related parameters

MTTF<sub>d</sub> 1050 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 PVC , 2 m

 Core cross-section
 0.14 mm²

 Housing material
 Stainless steel 1.4305 / AISI 303

 Sensing face
 PBT

Protection degree IP67

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 / marking not required for products rated ≤36 V

#### ATEX 2G

Instruction

#### Device category 2G

EC-Type Examination Certificate CE marking

ATEX marking

Directive conformity

Standards

Appropriate type

Effective internal capacitance  $C_i$ Effective internal inductance  $L_i$ 

General

Ambient temperature

Installation, Comissioning

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 PTB 00 ATEX 2048 X **C €** 0102

0102

II 2G Ex ia IIC T6 Gb

#### 94/9/EG

EN 60079-0:2009, EN 60079-11:2007 Ignition protection "Intrinsic safety"
Use is restricted to the following stated conditions
NJ 0.8-4.5-N...

 $\leq$  30 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!

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  $^{\circ}$ 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  $^{\circ}\text{C}$  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.