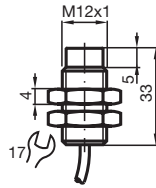


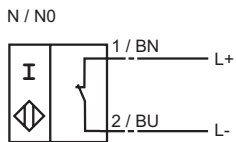
Comfort series
4 mm not embeddable



CE 0102

Switching element function	NAMUR NC
Rated operating distance s_n	4 mm
Installation	not embeddable
Assured operating distance s_a	0 ... 3,24 mm
Reduction factor r_{AI}	0,4
Reduction factor r_{Cu}	0,3
Reduction factor r_{V2A}	0,85
Nominal voltage U_o	8 V
Operating voltage U_B	5 ... 25 V
Switching frequency f	0 ... 1500 Hz
Hysteresis H	3 %
Current consumption	
Measuring plate not detected	≥ 3 mA
Measuring plate detected	≤ 1 mA
EMC in accordance with	EN 60947-5-2
Standards	DIN EN 60947-5-6 (NAMUR)
Ambient temperature	-25 ... 100 °C (248 ... 373 K)
Connection type	2 m, PVC cable
Core cross-section	0.34 mm ²
Housing material	high grade steel
Sensing face	PBT
Protection degree	IP67
Use in the hazardous area	see instruction manuals
Category	1G; 2G

Connection_type:



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2003-07-22

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Instruction

Device category 1G
 Directive conformity
 Standard conformity

CE symbol

Ex-identification

EC-Type Examination Certificate

Assigned 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

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

Ex II 1G EEx ia IIC T6

PTB 00 ATEX 2048 X

NJ 4-12GM-N...

≤ 45 nF ; a cable length of 10 m is considered.

≤ 50 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:

96 cm

48 cm

7 cm

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual.

The EU prototype test certificate must be observed. The special conditions must be adhered to!

The temperature ranges, according to temperature class, are given in the EU prototype test 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" and have galvanic isolation between the power supply and signal circuits.

The sensor must be protected from strong electromagnetic fields.

No changes can be made to apparatus, which are operated in hazardous areas.

Repairs to these apparatus are not possible.

The sensor must be protected from mechanical damage.

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

Instruction

Manual electrical apparatus for hazardous areas

Device category 2G

Directive conformity

Standard conformity

for 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 symbol

CE 0102

Ex-identification

⊕ II 1G EEx ia IIC T6

EC-Type Examination Certificate

PTB 00 ATEX 2048 X

Assigned type

NJ 4-12GM-N...

Effective internal capacitance C_i

≤ 45 nF ; a cable length of 10 m is considered.

Effective internal inductance L_i

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

General

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EU prototype test certificate must be observed. The special conditions must be adhered to!

Highest permissible ambient temperature

The temperature ranges, according to temperature class, are given in the EU prototype test certificate.

Installation, Commissioning

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 sensor must be protected from strong electromagnetic fields.

Maintenance

No changes can be made to apparatus, which are operated in hazardous areas.

Repairs to these apparatus are not possible.

Special conditions

Protection from mechanical danger

The sensor must be protected from mechanical damage.

Electrostatic charging

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.