



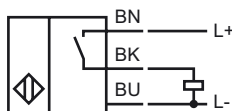
Model Number

NCN8-18GM50-E2-3G-3D-5M

Features

- Comfort series
- 8 mm not embeddable

Connection

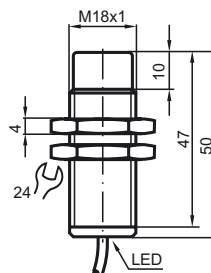


Accessories

BF 18

Mounting flange, 18 mm

Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|----------------|
| Switching element function | PNP | NO |
| Rated operating distance | s_n | 8 mm |
| Installation | | not embeddable |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 6.48 mm |
| Reduction factor r_{Al} | | 0.45 |
| Reduction factor r_{Cu} | | 0.4 |
| Reduction factor r_{V2A} | | 0.7 |

Nominal ratings

| | | |
|-----------------------------------|-------|----------------------------|
| Operating voltage | U_B | 10 ... 60 V |
| Switching frequency | f | 0 ... 400 Hz |
| Hysteresis | H | 1 ... 10 typ. 5 % |
| Reverse polarity protected | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 V |
| Operating current | I_L | 0 ... 200 mA |
| Lowest operating current | I_m | 0 mA |
| Off-state current | I_r | 0 ... 0.5 mA typ. 0.01 mA |
| No-load supply current | I_0 | ≤ 10 mA |
| Indication of the switching state | | LED, yellow |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | -40 ... 85 °C (-40 ... 185 °F) |

Mechanical specifications

| | |
|--------------------|-----------------------------------|
| Connection type | cable PVC, 5 m |
| Core cross-section | 0.5 mm ² |
| 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 | 3G; 3D |

Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|---|
| CCC approval | Certified by China Compulsory Certification (CCC) |
|--------------|---|

ATEX 3G (nA)

Instruction

Manual electrical apparatus for hazardous areas**Device category 3G (nA)**

Directive conformity

Standard conformity

for use in hazardous areas with gas, vapour and mist

94/9/EG

EN 60079-0:2006, EN 60079-15:2005


Ignition protection category "n"

Use is restricted to the following stated conditions

CE symbol



Ex-identification

 II 3G Ex nA IIC T6 X

General

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The data stated in the data sheet are restricted by this operating instruction! The special conditions must be observed!

Installation, Commissioning

Laws and/or regulations and standards governing the use or intended usage goal must be observed.

Maintenance

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

Repairs to these apparatus are not possible.

Special conditionsMaximum operating current I_L

The maximum permissible load current must be restricted to the values given in the following list. High load currents and load short-circuits are not permitted.

Maximum operating voltage U_{Bmax}

The maximum permissible operating voltage U_B max is restricted to the values in the following list. Tolerances are not permissible.

Maximum permissible ambient temperature T_{Umax}

dependant of the load current I_L and the max. operating voltage U_{Bmax} . Information can be taken from the following list.

at $U_{Bmax}=60$ V, $I_L=200$ mA

41 °C (105.8 °F)

at $U_{Bmax}=60$ V, $I_L=100$ mA

46 °C (114.8 °F)

at $U_{Bmax}=30$ V, $I_L=200$ mA

48 °C (118.4 °F)

Protection from mechanical danger

The sensor must not be exposed to **ANY FORM** of mechanical danger.

Protection from UV light

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

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.

Protection of the connection cable

The connection cable must be prevented from being subjected to tension and torsional loading.

ATEX 3D (tD)

Instruction

Manual electrical apparatus for hazardous areas**Device category 3D**

Directive conformity

Standard conformity

for use in hazardous areas with combustible dust

94/9/EG

EN 61241-0:2006, EN 61241-1:2004

Protection via housing "tD"

Use is restricted to the following stated conditions

CE symbol



Ex-identification

II 3D Ex tD A22 IP67 T80°C X

General

The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The maximum surface temperature has been determined in accordance with method A without a dust layer on the equipment.

The data stated in the data sheet are restricted by this operating instruction!

The special conditions must be adhered to!

Installation, Commissioning

Laws and/or regulations and standards governing the use or intended usage goal must be observed.

Maintenance

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

Repairs to these apparatus are not possible.

Special conditionsMaximum operating current I_L

The maximum permissible load current must be restricted to the values given in the following list.

High load currents and load short-circuits are not permitted.

Maximum operating voltage U_{Bmax} The maximum permissible operating voltage U_{Bmax} must be restricted to the values given in the following list. Tolerances

are not permitted.

Maximum permissible ambient temperature

dependant of the load current I_L and the max. operating voltage U_{Bmax} .

Information can be taken from the following list.

at $U_{Bmax}=60$ V, $I_L=200$ mA

41 °C (105.8 °F)

at $U_{Bmax}=60$ V, $I_L=100$ mA

46 °C (114.8 °F)

at $U_{Bmax}=30$ V, $I_L=200$ mA

48 °C (118.4 °F)

Protection from mechanical danger

The sensor must not be exposed to **ANY FORM** of mechanical danger.

Protection from UV light

The sensor and the connection cable must be protected from damaging UV-radiation. This can be achieved when the sensor is used in internal areas.

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.

Sliding contact discharges must be avoided.

Protection of the connection cable

The connection cable must be prevented from being subjected to tension and torsional loading.