

## FDCI221-CN Input module Product Manual

### Characteristic

- Fulfill Chinese Standard of GB16806-2006 "Interlocking Control System"
- 1 monitored contact input
- Input lines are monitored for open line and short circuit (termination resistors)
- LED display of input status
- Integrated line separator
- Microprocessor-controlled signal evaluation
- Communication via C-NET (detector line)
- Applicable in dry, dusty and humid areas

### Application

With the input a status can be monitored e.g. whether a door is closed. The input can be configured as follows:

- Status input or danger input
- Lead monitoring for open line or open line and short circuit
- active, when contact is:
  - open (normally closed NC)
  - closed (normally open NO)

#### Status inputs and danger inputs

Danger inputs trigger an alarm as soon as the input is activated. Status inputs trigger a status change as soon as they are activated.

#### Line monitoring and circuitry

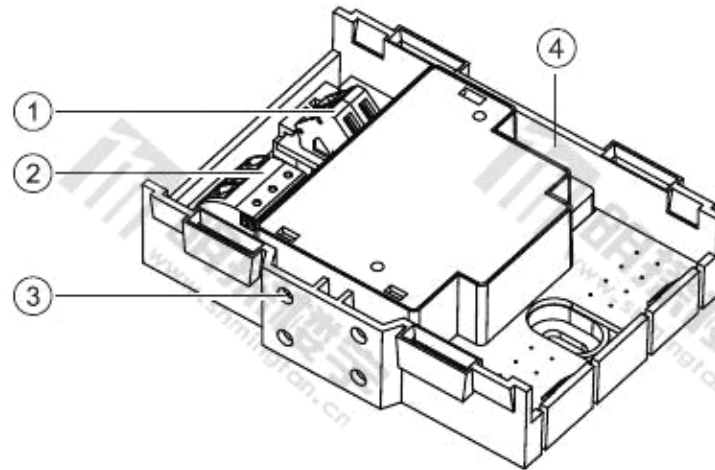
The input lines are monitored for open line or open line and short circuit. To make this possible, resistors must be connected to the lines of the input. When an open line or a short circuit occurs on one of the input lines, a fault message is transmitted to the control panel.

The input must be potential-free.

## Structure

The module consists of the module carrier, the printed circuit board and the cover. The printed circuit board includes the LED. The LED indicates the status of the input. The cover of the printed circuit board is transparent, so that the state of the LED is visible even when the housing is closed.

To protect the modules from environmental influences, the FDCH221 housing is available.



### Legend

1. Terminals for input
2. Terminals for the C-NET detector line
3. Break-outs for the mounting feet
4. LED for the status of the input

## LED indicator

The tables below show the meaning of the LED status.

Status LED	Meaning
LED off	Normal operation
LED flashing every 1 s (250 ms ON)	Input activated
LED flashing every 1 s (short flashes)	Localization mode

## Installation

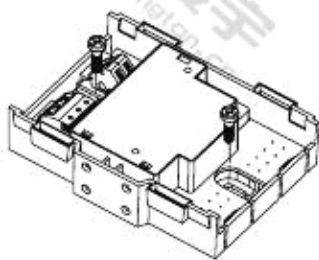


Fig. 1

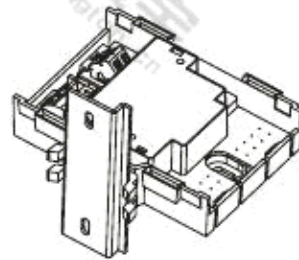


Fig. 2

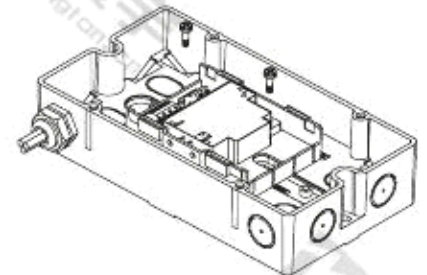


Fig. 3

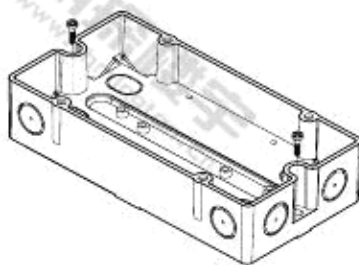


Fig. 4

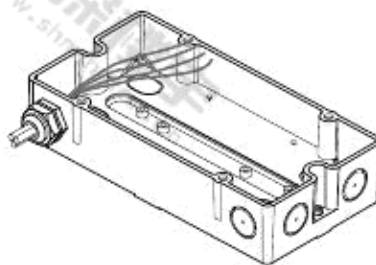


Fig. 5

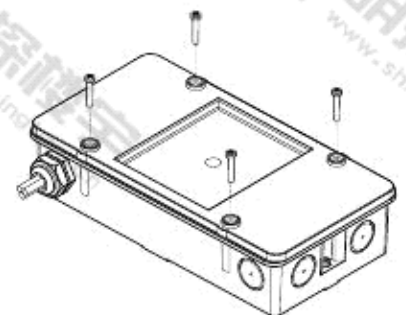


Fig. 6

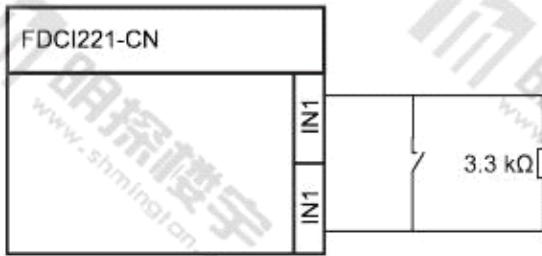


Fig. 7

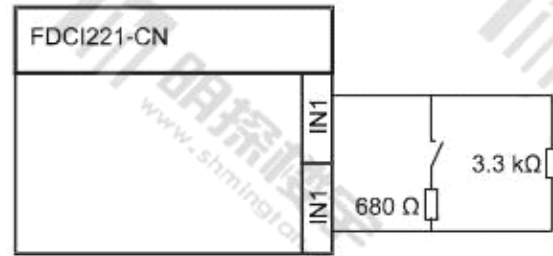


Fig. 8

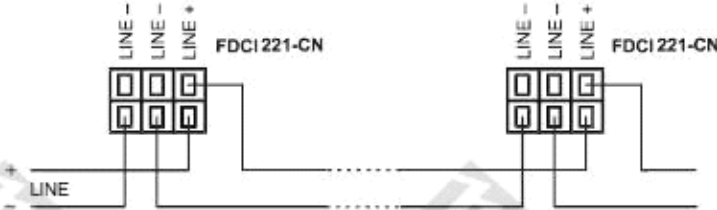


Fig. 9

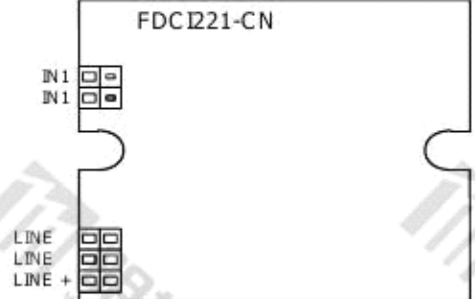


Fig. 10

## Preparation

The installation procedure depends on the module's place of use and type of installation.



### Electric shock!

During installation work, voltage must not be applied to the cables.

1. Define the place of use.
  - Installation outside an electric cabinet or control panel (module **always** in FDCH221 housing)
  - Installation in electric cabinet or in control panel (any type of module installation)
2. Define the type of installation.
  - on a plane surface (Fig. 1)
  - on a top hat rail (Fig. 2)
  - in FDCH221 housing (Fig. 3)

## Installation on a plane surface

1. Position the module on a plane surface (Fig. 1).
2. Use two screws to secure the module. Distance between holes:  $63.5 \pm 1.0\text{mm}$ .

## Installation on a top hat rail

1. Insert two installation feet in the module.
2. Press the module and the installation feet against the top hat rail until the feet snap in (Fig. 2).

## Installation in housing

1. Open the housing (Fig. 6).
2. Determine the cable entries in the housing and break these open.
3. Use two screws to fit the housing on a plane surface (Fig. 4). Distance between holes:  $182.0 \pm 1.0\text{mm}$ .
4. Secure the M20 cable glands on the housing and guide in the cables (Fig. 5).
5. Use two M3 x 12 screws to fit the module in the housing (Fig. 3).
6. Close the housing with the lid and screws provided (Fig. 6).

## Electric connection



### Electrical voltage!

When connecting up the C-NET, note the positive and negative connections.

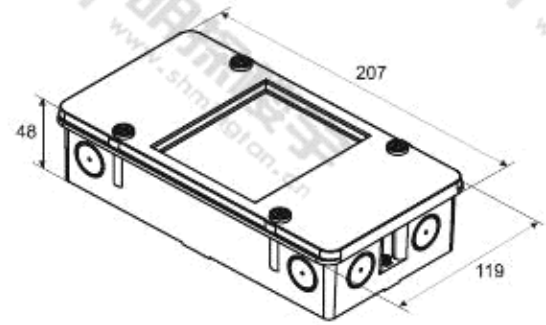
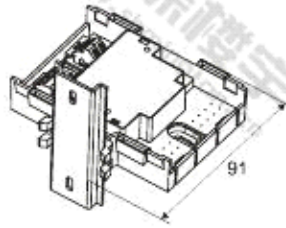
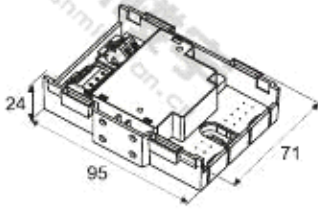
Connect only one wire to each terminal.

1. Connect the cables to the terminals as shown in the connection diagram (Fig. 10). Refer to the following figures for connection details:
  - Detector line: Fig. 9
  - Input monitored for open line: Fig. 7
  - Input monitored for open line and short circuit: Fig. 8
2. If you are using shielded cables for the detector line, connect the shielding to the DBZ1190-AB connection terminal. The shielding must not touch any extrinsic earthing potentials or metal parts in the housing.
3. Connect the resistors to the end of the input line (Fig. 7 and Fig. 8).



## Dimension

In: mm



## Specification

Operating voltage	12 ... 32 VDC
Operating current (quiescent)	0.25 mA
Activation current	0.40 mA
Operating temperature	-25 ... +70 °C
Storage temperature	-30 ... +75 °C
Humidity	≤95 % rel.
Communication protocol	C-NET
Connection terminals	0.2 ... 2.5 mm <sup>2</sup>
Color	
- Housing	white, RAL 9010
- Cover	transparent
Protection category EN60529 / IEC529	
- Without auxiliary housing	IP30
- With auxiliary housing	IP65

## Details for ordering

Type	Material No.	Part No.	Designation	Weight
FDCI221-CN	S54312-F1-A101	100680555	Input module	0.06 Kg
FDCH221	S54312-F3-A1	100686595	Housing	0.25 Kg
FDCM291	A5Q00003855		Mounting foot (25 pcs. Per pack)	
	A5Q00004478		Metal cable gland M20 x 1.5 (10 pcs. per pack)	
	A5Q00004479		Counter nut M20 x 1.5 (100 pcs. per pack)	
DBZ1190-AB	4942340001		Connection terminal 1 ... 2.5 mm <sup>2</sup> (50 pcs. per pack)	

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