SIEMENS

FDCI181-2 Input Module
Product Manual

Characteristic

- 2 monitored digital input
- Input lines are monitored for open line and short circuit (terminal resistors is mandatory)
- Microprocessor-controlled signal evaluation
- Prevention of noise interference through intelligent analysis of input signals
- LED display of input status
- Automatic address setting, without encoder settings or Dip-switch
- Power supply via FD18-BUS
- Communication with controller via FD18-BUS(detection line)
- Applicable in dry, dusty and humid areas
- "Sticker Method" easy for commissioning

Application

With the input a status can be monitored, the input can be configured by controller or configuration tools as follows:

- "Status" input or "Alarm" input
- Lead monitoring for open line or open line and short circuit
- When inputting status, according to different status of contact, can be set as fallows:
    - Normal mode: normally open NO input
    - Inverted mode: normally closed NO input

Building Technologies
Fire safety and security products

"Status" inputs and "Alarm" inputs

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

Line monitoring and circuitry

The input lines are monitored for open line or open/short line. To make these possible, resistors must be properly connected to the end of lines of the input (Fig.6). When an open line or a short line occurs on one of the input lines, a trouble 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 LEDs. The LEDs indicate the status of the inputs. The cover of the printed circuit board is transparent, so that the state of the LEDs is visible even when the housing is closed.

To protect the modules from environmental influences, there are additional options for the housing.
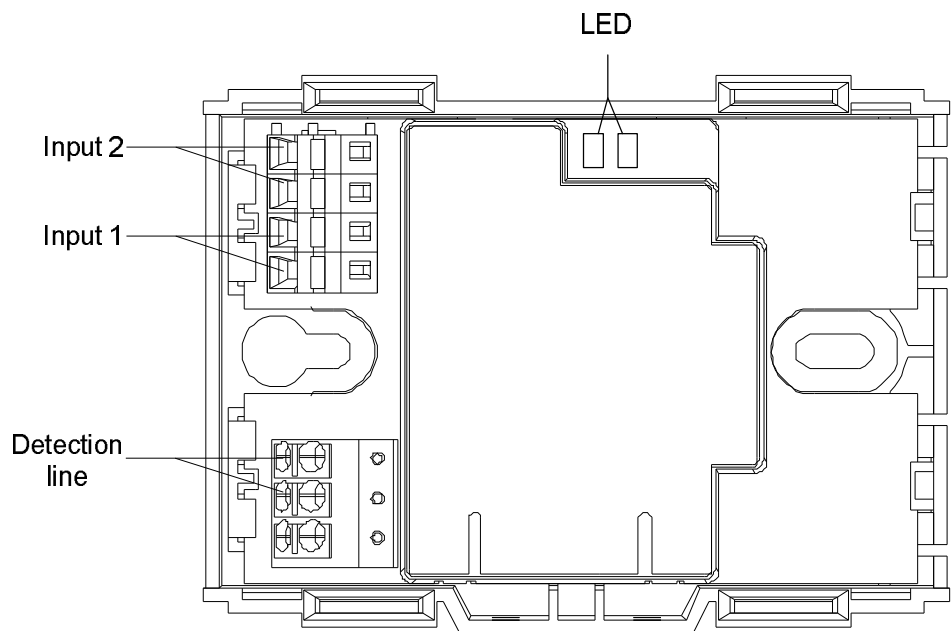

Fig. 1 Overview

LED indicator

LED indicator for input

Each input has indicator to show its status.

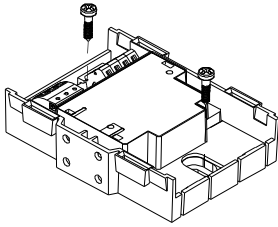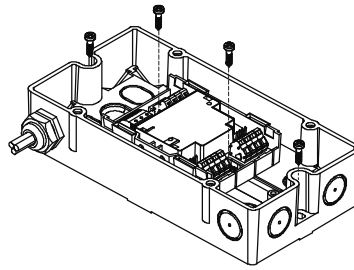| Status LED	Meaning
Off	Normal operation
Red LED flashing every 1 s (250 ms ON)	Input activated
Input 1, LED flashing every 1 s (short flashes)	Localization mode

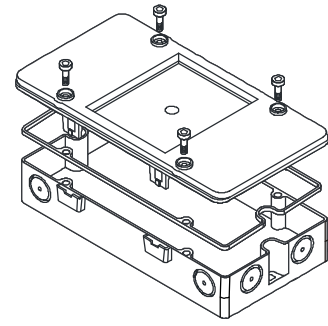# Installation

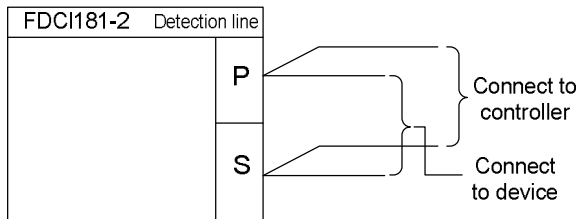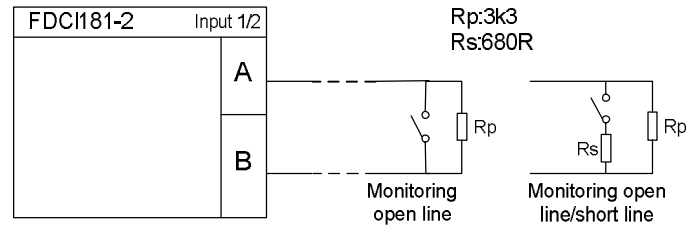Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Preparation

1. Determine the type of installation: there are 2 types of installation for FDCI181-2 Input module:
   – Installation outside a switching cabinet or a control unit: use FDCH221 housing (Fig. 3) .
   – Installation directly in a switching cabinet or a control unit: mount the module on an even surface (Fig.2).

⚠️ **Damage by water!**
In humid or wet environments always use the housing FDCH221!

Installation of FDCH221 Housing

1. Open the housing.
2. Determine the cable entries in the housing and break these open.
3. Use two screws (M 4) to fit the housing on a plane surface (Fig. 3). Distance between holes: 182.0 ± 1.0mm.
4. Fix and guide in the cables with waterproof joint (provided by users themselves).
5. Fix the lid additionally with four screws (Fig. 4). (Only this way is IP protection guaranteed.)

ℹ️ The housing lid is transparent. Consider a suitable installation position to make sure that the LEDs of the module are visible at any time.

Installation of module in FDCH221 housing

⚠️ **Caution!**
Overheating of FDCI81-2 input module.

1. Open the housing.
2. Fix module with two screws in the housing (Fig. 3)
3. Close the housing.

Installation on an even surface

1. Position module on an even surface (Fig. 2).
2. Fix module with two M4 screws. Distance between holes:63.5 ± 1.0mm.

Electric connection

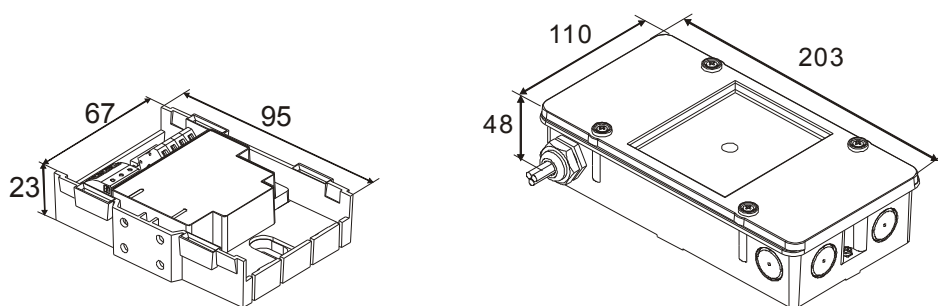1. Connect the cables to the terminals according to Fig. 5/6.

ℹ️ Connect only one wire per terminal!

2. Connect the resistors to the end of the monitored line. 2 resistors of $3.3K\Omega$ and 2 of 680Ω are delivered with the product.

Dimension

In:mm

Specification

Operating voltage	12 … 32 VDC
Operating current(Quiescent)	0.33 mA
Activation current	0.45 mA
Operating temperature	0 ... +42 °C
Storage temperature	–20 ... +75 °C
Humidity	≤95 %
Communication protocol	FD18-BUS
Connection terminal	1.0 ... 1.5 mm^2
Color	
– Housing	white，RAL 9010
– Cover	transparent
Protection category EN60529 / IEC529/GB4208-93	
– With housing FDCH221	IP65

Details for ordering

Type	Material No.	Part No.	Designation	Weight
FDCI181-2	S54322-F1-A1	100856215	Input module	0.056 kg
FDCH221	S54312-F3-A1	100686595	Housing(IP65)	0.250 kg