

**TECHNICAL SPECIFICATION**

<b>Type Identification Value:</b>	145
<b>System Compatibility:</b>	Use only with FC Fire Alarm Controllers
<b>Environment:</b>	Indoor Application only
<b>Operating Temperature:</b>	-25 to +70 °C
<b>Storage Temperature:</b>	-40 to +80 °C
<b>Operating Humidity:</b>	Up to 95% non-condensing
<b>Dimensions (HxWxD):</b>	87 x 148 x 14 mm
Weight	100g
<b>Mounting Requirements:</b>	One FC backbox surface mount
<b>Battery Requirements:</b>	
Standby Current:	0.505mA
Alarm Current:	4.5mA
<b>Recommended Wire Size:</b>	Min. 1.5 mm <sup>2</sup> Max. 2.5 mm <sup>2</sup>
Maximum Wiring Resistance	
Monitored Circuit:	10Ω
<b>Addressable Device Conditions:</b>	– Normal – Active – Short Circuit wiring fault – Open Circuit wiring fault – Device Type Invalid – Device No Response

**Electromagnetic Compatibility**

The FC410CIM complies with the following:

- product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy;
- EN61000-6-3 for emissions.

**INTRODUCTION**

The FC410CIM FC Addressable Contact Input Module is designed to monitor fire contacts such as extinguishing system control, ventilation control, fire door control etc. The FC410CIM can be configured as:

- Two spur circuits (Class B) monitoring multiple normally open contacts, with short circuit giving a fault output.
- Two spur circuits (Class B) monitoring single normally closed contacts, with short circuit giving a fault output.
- Two spur circuits (Class B) monitoring multiple normally open contacts, with short circuit giving an alarm.

**FEATURES**

FC410CIM monitoring features include the following configurable items:

- Identifies all monitored contacts and signals to the Fire Controller the status of monitored contacts and wiring to the contacts.
  - Can monitor a single normally closed contact.
  - Can monitor two Class B spur circuits.
  - A monitored contact going to the active state, on either spur circuit, will cause FC410CIM to report the Active State back to the FireClass controller.
- An LED reports FC410CIM status to the user.
- The LED lights when the contact monitored by the FC410CIM has switched to the active (off normal) state.
  - The LED when normally off, will pulse when the FC410CIM is polled by the controller.

**WIRING NOTES**

The following notes apply:

- 1) There are no user-required settings (such as switches or headers) on FC410CIM.
- 2) All wiring must conform to the applicable standards.
- 3) All conductors to be free of earths.
- 4) Fit the PCB to the FC470CV cover.
- 5) Connect wiring to the monitored contact. For FC410CIM typical wiring configurations see Figures 4 to 6.

- 6) Verify the correct polarity of wiring before connecting the FC410CIM to the addressable loop circuit

☞ Refer to Fig.4.

- 1) If only one circuit is used, the other circuit must be terminated with 200/100 ohm resistors in parallel or a single 68 ohm EOL resistor.
- 2) FireClass Console configuration selection - Style C (normally closed).

☞ Refer to Fig.5.

- 1) If only one circuit is used, the other circuit must be terminated with 200 ohm EOL resistor.
- 2) FireClass Console configuration selection - Style C (normally open).

☞ Refer to Fig. 6

- FireClass Console configuration selection - Style B (normally open).  
If only one circuit is used, the other circuit must be terminated with 200 ohm EOL resistor.

**INSTALLATION TO FC470CV DOUBLE GANG COVER**

- 1) Assemble the FC410CIM to M520 Double Gang cover, using the four screws and washers provided.
- 2) Fit cover onto FC backbox.

**ADDRESS SETTINGS**

The FC410CIM has a default factory set address of 255, this must be set to the loop address of the device using the FC490ST Loop Service Tool. The FC410CIM may be programmed with the address prior to being installed by using the internal programming port (see Fig.2) or after being installed by using the programming port on the front cover (see Fig.3).

☞ Note: once the address has been programmed, take note of the device location and address number, to include on site drawings.

☞ Note: this device use one address only on the loop.

**CABLING**

Cables are to be selected in accordance with the system design document and the requirements of the applicable standard. Two pairs of connection terminals (L+ and L-) are provided on the terminal block. These terminals are used for connecting the module on to the addressable circuit. The maximum section of the cable that can be connected at any one terminal is 2.5mm<sup>2</sup>. The section is calculated based on the characteristics of the cable and the load.

**ASSOCIATED EQUIPMENT**

The module fits onto a standard dual-gang backbox.

**ORDERING INFORMATION**

FC410CIM: Contact Input Module:  
FC470CV: Double-Gang cover

**RECYCLING INFORMATION**

Customers are recommended to dispose of their used equipments (panels, detectors, sirens, and other devices) in an environmentally sound manner. Potential methods include reuse of parts or whole products and recycling of products, components, and/or materials.

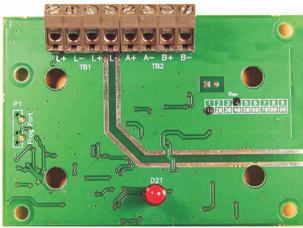
**WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)**

**DIRECTIVE**

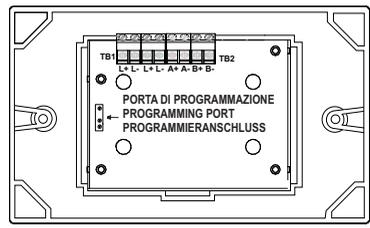


In the European Union, this label indicates that this product should NOT be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

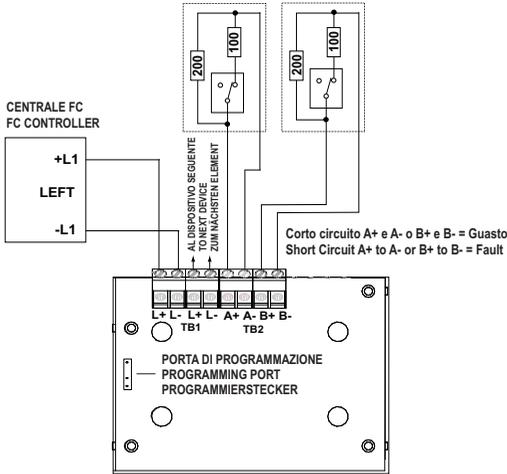
The manufacturer reserves the right to change the technical specifications of this product without prior notice.



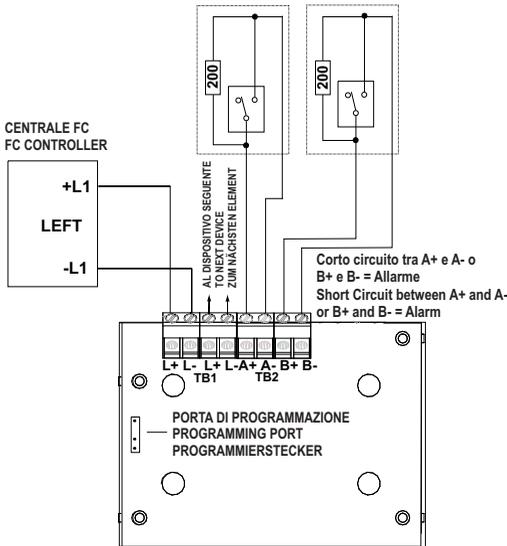
**FIG. 1** FC410CIM Modulo a 2 ingressi  
FC410CIM Contact Input Module  
FC Eingangselement für Kontakte, überwacht - FC410CIM



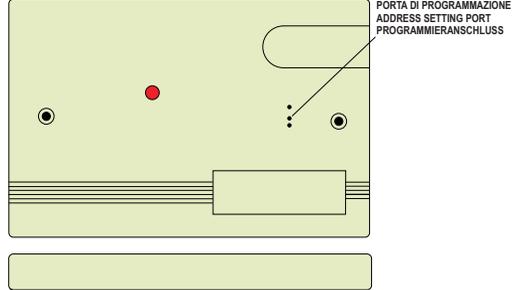
**FIG. 2** FC410CIM fissata al coprerchio  
FC410CIM fitted to cover  
FC410CIM ins Gehäuse eingebaut



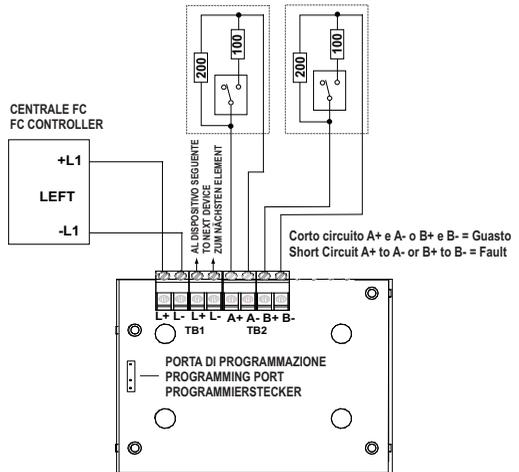
**FIG. 4** Circuito SPUR (Classe B) Contatti normalmente chiusi.  
Spur Circuit (Class B) Normally Closed Contacts  
Stichleitung, Öffner-Kontakte; Stichleitungskurzschluss ergibt „Störung“



**FIG. 6** Circuito SPUR (Class B) Contatti normalmente aperti  
Spur Circuits (Class B) Normally Closed Contacts  
Stichleitung, Schließer-Kontakte; Stichleitungskurzschluss ergibt „Alarm“



**FIG. 3** FC410CIM Placca  
FC410CIM Facia Plate  
Kurzschlussisolator Vorderseite



**FIG. 5** Circuito SPUR (Classe B) Contatti normalmente aperti  
Spur Circuits (Class B) Normally Open Contacts  
Stichleitung, Schließer-Kontakte; Stichleitungskurzschluss ergibt „Störung“

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