

TECHNICAL SPECIFICATION

System Compatibility:	Use only with FC Fire Alarm Controllers
Environment:	Indoor Application only
Operating Temperature:	-25 to +70 °C
Storage Temperature:	-40 to +80 °C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HxWxD):	85 x 60 x 15 mm
Mounting Requirements:	Dual-gang electrical backbox
Recommended Wire Size:	Min. 1.5 mm ² Max. 2.5 mm ²
Maximum Wiring Resistance	
Monitored Circuit:	10 Ω

Electromagnetic Compatibility

The FC410LI 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 FC410LI Line Isolator Module is designed to be used on the FC addressable controller loop circuits. It monitors the line condition and when detecting a short circuit will isolate the affected section whilst allowing the rest of the addressing circuit to function normally. The purpose of the FC410LI Line Isolator Module is to ensure that, on a looped addressable system, no short circuit fault can disable more detection devices than would be lost on a conventional non-addressable fire circuit.

INSTALLATION TO FC470CV ANCILLARY COVER

- 1) Assemble the FC410LI to the FC470CV Double Gang cover, using the four screw and washers provided.
- 2) Fit cover onto dual-gang backbox.

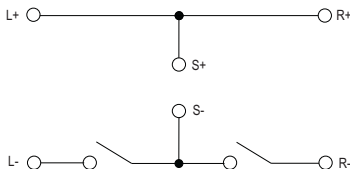
CABLING

Cables are to be selected in accordance with the system design document and the requirements of the applicable standards. One pair of terminals is used to provide a spur circuit (S+/S-). Two pairs of connection terminals (R+/R- and L+/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 2.5mm². The section is calculated based on the characteristics of the cable and the load.

WIRING NOTES

The following notes apply:

- 1) There are no user-required settings (such as switches or headers) on the FC410LI.
- 2) All wiring must conform to the applicable standards.
- 3) All conductors to be free of earths.
- 4) Connect loop wiring. For FC410LI typical wiring configurations (see Fig. 1b).
- 5) Verify the correct polarity of wiring before connecting the FC410LI to the addressable loop circuit.
- 6) It is possible to connect a maximum of 32 devices between two loop isolators (FC450IB or FC410LI), note that in the device counting process, each FC410MIO or each FC410SIO adds a double value.



Switches are normally closed.

If a short circuit is detected on the spur, both switches open.

If a short circuit is detected on the left hand side, the left hand side switch opens.

If a short circuit is detected on the right hand side, the right hand side switch opens.

VERIFYING LOOP WIRING

WARNING: DO NOT MEGGER LOOP WIRING WITH LINE ISOLATOR MODULES CONNECTED.

The Line Isolator Module is not designed to work with line voltages above the specified maximum 40 Vdc. This means that continuity testing of the loop wiring with Line Isolator Bases connected must be done using a voltage between 20-40 Vdc.

The resistance measurement range on conventional voltmeters use low voltage only, therefore, the following method can be employed to confirm loop integrity.

A power supply capable of providing 30-40 Vdc with a 300 to 600 mA current limit is connected to one end of the loop (in correct polarity). A voltmeter is connected to the other end of the loop or any base along the loop to verify the wiring up to that point.

If there is no voltage out at any measured point, this may be due to:

- 1) Loop Open Circuit - wiring incomplete to part of the loop.
- 2) Incorrect Polarity - FC410LI Line Isolator Modules will appear as a short circuit if they are wired with incorrect polarity.
- 3) Loop Short Circuit - If this occurs between two FC410LI Line Isolator Modules, it will isolate that section of the line, which will then appear as an open circuit. If this occurs between the supply and the first FC410LI Line Isolator Modules, the supply output will go low due to the internal current limit.

ASSOCIATED EQUIPMENT

The module fits onto a standard dual-gang backbox.

ORDERING INFORMATION

FC410LI: Line Isolator 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.

b)

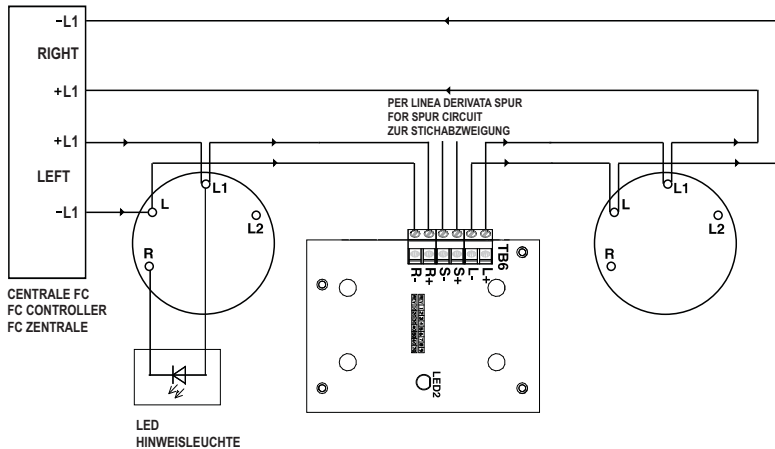


FIG. 1 FC410LI schema di collegamento
FC410LI Wiring Diagram
Typische Verdrahtung des FC410LI

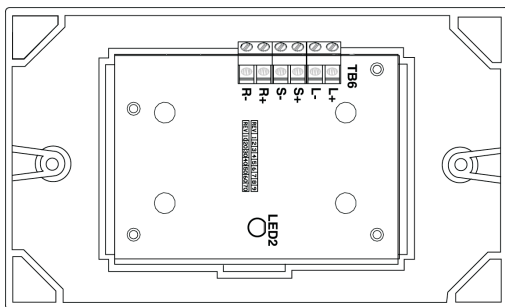


FIG. 2 FC410LI fissata al coperchio
FC410LI fitted to cover
FC410LI ins Gehäuse eingebaut

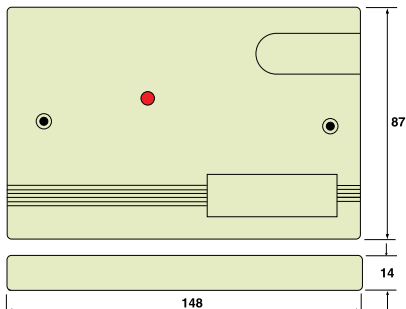


FIG. 3 FC410LI Placca
Facia Plate
Kurzschlussisolator Vorderseite

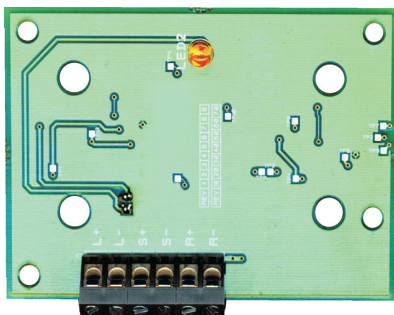


FIG. 4 Modulo Isolatore FC410LI
FC410LI Line Isolator Module
FC410LI Kurzschlussisolator