

# CIM800 Contact Input Module – Installation Instructions

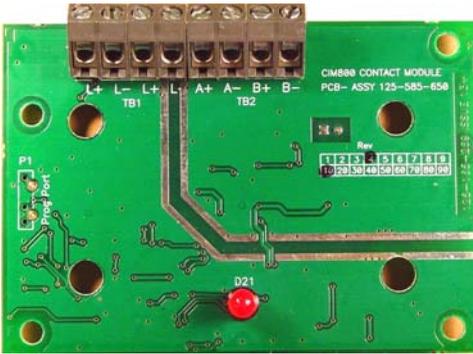


Fig. 1: CIM800 Contact Input Module

## Technical specification

Parameter	Value
Type Identification Value:	145
System Compatibility:	Use only with MX Fire Alarm Controllers
Environment:	Indoor Application only
Operating Temperature:	-25 °C to +70 °C
Storage Temperature:	-40 °C to +80 °C
Operating Humidity:	Up to 95 % non-condensing
Dimensions (HWD):	87 x 148 x 14 mm
Weight:	100 g
Mounting Requirements:	One MK backbox surface mount or an ANC-8 ancillary housing

Table 1: Technical Specifications

Parameter	Value
Battery Requirements:	
Standby current:	0.505mA
Alarm current:	4.5mA
Wire Size:	Min 1.5 mm <sup>2</sup> Max 2.5 mm <sup>2</sup>
Maximum Wiring Resistance Monitored Circuit:	10 ohm
Addressable Device Conditions:	<ul style="list-style-type: none"> <li>■ Normal</li> <li>■ Active</li> <li>■ Short Circuit wiring fault</li> <li>■ Open Circuit wiring fault</li> <li>■ Device Type Invalid</li> <li>■ Device No Response</li> </ul>

Table 1: Technical Specifications

## Electromagnetic Compatibility

The CIM800 complies with the following:

- Product family standard EN 50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy
- EN 61000-6-3 for emissions

## Introduction

The CIM800 Contact Input Module is designed to monitor fire contacts such as extinguishing system control, ventilation control, fire door control etc. The CIM800 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.
- Single loop circuit (Class A) monitoring a normally open contact, with short circuit giving a fault output.
- Single loop circuit (Class A) monitoring a normally closed contact, with short circuit giving a fault output.
- Two spur circuits (Class B) monitoring multiple normally open contacts, with short circuit giving an alarm.
- Single loop circuit (Class A) monitoring multiple normally open contacts, with short circuit giving an alarm.

## Features

The CIM800 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, or a single class Class A loop circuit.
- When two Class B spur circuits are connected, each must be of the same style. A monitored contact going to the active state, on either spur circuit, will cause the CIM800 to report the Active State back to the MX controller.
- An LED reports the CIM800 status to the user.
- The LED lights when the contact monitored by the CIM800 has switched to the active (off normal) state.

- The LED when normally off, will pulse when the CIM800 is polled by the controller.

## Wiring notes



### NOTICE

- There are no user-circuit required settings (such as switches or headers) on the CIM800.
- All wiring must conform to the current edition of IEE Wiring Regulations and BS5839 part 1.
- All conductors to be free of earths.
- Fit the PCB to the M520 cover/ANC-8 ancillary housing.
- Connect wiring to the monitored contact. For CIM800 typical wiring configurations (see Figures 6 to 11).
- Verify the correct polarity of wiring before connecting the CIM800 to the addressable loop

## Mounting

### Installation of modules into an ANC-8 ancillary housing

The housing can accommodate up to eight ancillary PCBs. A stacking kit is available if a second layer of PCBs is required.

### How to install MX800 modules into an ANC-8 ancillary housing

- 1 Assemble the required ancillary PCBs onto the chassis plate as required, fixing as shown in Fig. 3.
- 2 Assemble the chassis plate into the housing and secure using fixing screw, see Fig. 2.

- 3 Connect the chassis plate earth lead to the housing, see Fig. 2.

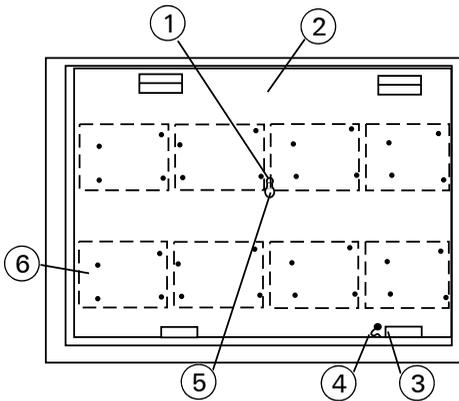


Fig. 2: ANC-8 - Chassis Plate

- 1- Chassis plate fixing screw
- 2- Chassis plate
- 3- Cover earth
- 4- Chassis plate earth
- 5- Transit screw
- 6- Typical positions of 800 modules (4 per row)



**CAUTION**

Ensure only nylon stand-offs and washers are used.

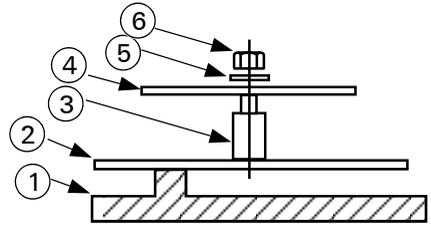


Fig. 3: ANC-8 - PCB Fixing Detail

- 1- Housing
- 2- Plate
- 3- Nylon spacer
- 4- Ancillary PCB.
- 5- Plain washer
- 6- Nylon nut

**Installation to M520 double gang cover**

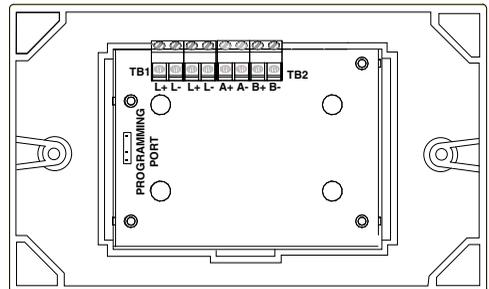


Fig. 4: CIM800 Fitted to Cover

**How to install MX800 modules to an M520 double gang cover**

- 1 Assemble the CIM800 to the M520 Double Gang cover, using the four screws and washers provided,
- 2 Fit cover onto MK backbox.
- 3 If an IP22 rating is required additional sealing must be applied. Apply Loctite S 1595 silicone sealant around the LED, as shown in Fig. 5. Note how the sealant fills the small gap between the LED and its hole in the cover.

Avoid smearing sealant over the LED surface.  
Using a fine nozzle is recommended.

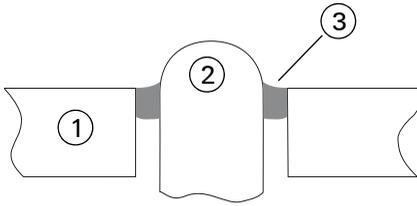


Fig. 5: Sealed LED

- 1- Cover
- 2- LED
- 3- Sealant

## Address settings

The CIM800 has a default factory set address of 255, this must be set to the loop address of the device using the 801AP MX Service Tool. The CIM800 may be programmed with the address prior to being installed by using the internal programming port (see Fig. 4) or after being installed by using the programming port on the front cover (see Fig. 6).



### NOTICE

Once the address has been programmed, take note of the device location and address number, to include on site drawings.

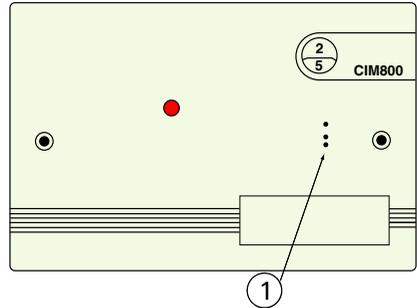


Fig. 6: CIM800 Contact Input Module Facia Plate

- 1- Address setting port

## Cabling

Cables are to be selected in accordance with Publication 17A-02-D and the requirements of the current issue of BS5839. Two pairs of connection terminals (L+ and L-) are provided on the terminal block. These terminals are used for connecting the module onto the addressable circuit. A maximum of one 1.5mm<sup>2</sup> or one 2.5mm<sup>2</sup> cable may be connected at any one terminal.

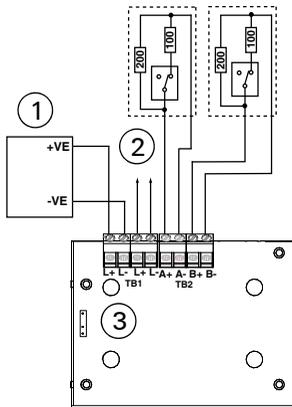
## Associated equipment

The module fits onto a standard dual-gang MK box, or an ANC8 ancillary housing.



### NOTICE

- If only one circuit is used the user circuit must be terminated with 200/100 ohm resistors in parallel or a single 68 ohm EOL resistor.
- MX CONSYS configuration selection – style C (normally closed)
- Mode 3



## NOTICE

- If only one circuit is used the user circuit must be terminated with 200 ohm EOL resistor.
- MX CONSYS configuration selection – style C (normally open)
- Mode 2

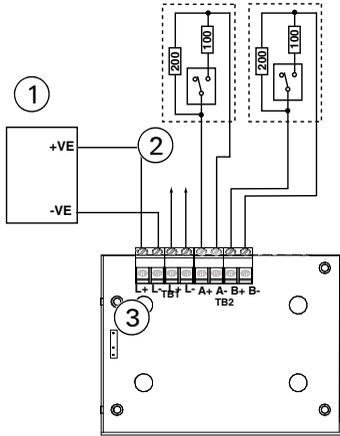
Fig. 7: Spur Circuits (Class B) Normally Closed Contacts

Short Circuit A+ to A- or B+ to B- = Fault

1 – MX Controller

2 – To next device

3 – Programming port

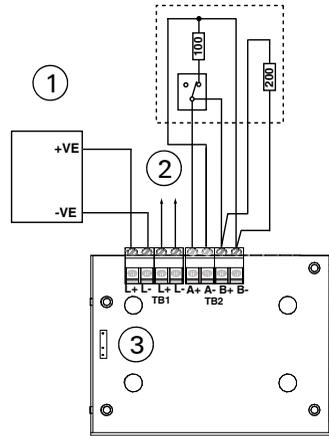


*Fig. 8: Spur Circuits (Class B) Normally Open Contacts  
Short Circuit A+ to A- or B+ to B- = Fault  
1- MX Controller  
2- To next device  
3- Programming port*



**NOTICE**

- MX CONSYS configuration selection – style E (normally closed)
- Mode 6



*Fig. 9: Loop Circuit (Class A) Normally Closed Contact  
Short Circuit A+ to A- or B+ to B- = Fault  
1- MX Controller  
2- To next device  
3- Programming port*



**NOTICE**

- MX CONSYS configuration selection – style E (normally open)
- Mode 5

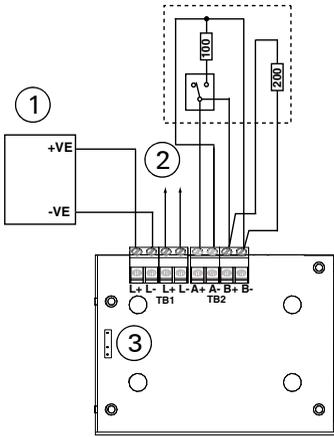


Fig. 10: Loop Circuit (Class A) Normally Open Contact  
Short Circuit A+ to A- or B+ to B- = Fault



**NOTICE**

- MX CONSYS configuration selection – style B (normally open)
- Mode 1
- If only one circuit is used, the other circuit must be terminated with A 200 ohm EOL resistor

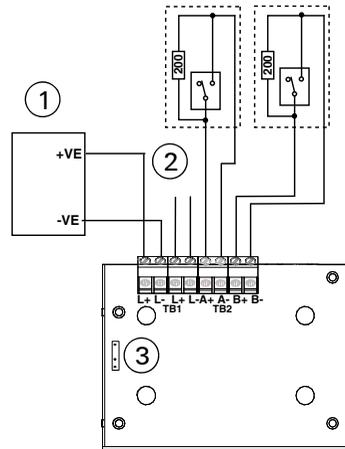


Fig. 11: Spur Circuit (Class B) Normally Open Contacts  
Short Circuit between A+ and A- or B+ and B- = Alarm  
1- MX Controller  
2- To next device  
3- Programming port



**NOTICE**

- MX CONSYS configuration selection – style D (normally open)
- Mode 4

**Ordering information**

Name	Stock code number
CIM800 Contact Input Module	555.800.002
CIM800 Contact Input Module: c/w cover	555.800.032
M520 Double-Gang Cover	517.035.007
ANC8 Ancillary Housing assy.	557.180.096.T/ A/Y

Table 2: Ordering information

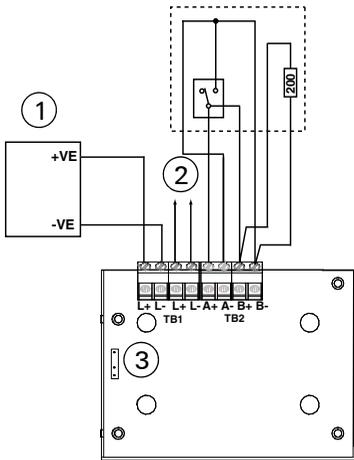


Fig. 12: Loop Circuit (Class A) Normally Open Contacts

Short Circuit between A+ and A- or B+ and B- = Alarm

- 1– MX Controller
- 2– To next device
- 3– Programming port

