

RIM800 Relay Interface Module

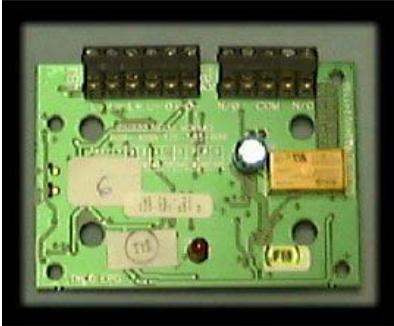


Fig. 1: RIM800 Relay Interface Module

Technical specifications

Parameter	Value
Type Identification Value:	161
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

Table 1: Technical Specifications

Parameter	Value
Operating Humidity:	Up to 95 % non-condensing
Dimensions (HWD):	87 x 148 x 14 mm
Mounting Requirements	MK backbox surface mount or an ANC8 ancillary housing
Wire Size	Min 1.5 mm ² Max 2.5 mm ²
Battery Requirements Standby current: Alarm current:	0.46 mA max 4.5 mA max
Addressable Device Conditions	<ul style="list-style-type: none"> ■ Normal ■ Active ■ Output Stuck ■ Device Type Invalid ■ Device No Response
Relay Contact Rating:	DC - 2 A @ 24 V dc

Table 1: Technical Specifications



NOTICE

The unit must not be used to switch mains voltages.

Electromagnetic Compatibility

The RIM800 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 RIM800 Relay Interface Module provides one volt-free relay changeover contact on a latching relay. The relay is controlled by a command sent from the MX fire controller via the addressable loop. The relay state (activated, deactivated or stuck) is returned to the controller.

Features

RIM800 features include the following:

- Addressable functionality

The control panel sends a command to operate the relay, then reports an activated or deactivated state back to the fire alarm control panel through the use of a set of contacts dedicated to monitor the state of the relay.
- One volt-free dry contact relay output
- LED status indicator which is normally off. When the RIM800 receives a command to activate, the LED lights.

Wiring & Installation notes



CAUTION

The O+ and O- terminals must not be used. for connecting the RIM800 to an HVR800, see publication 17A-03-HVR.

The following notes apply:

- There are no user required settings (switches, headers) on the RIM800. All wiring must be free of earths.
- All wiring must conform to current edition of IEE Wiring Regulations and BS5839 part 1.
- See Fig. 3 for RIM800 simplified wiring diagram.
- For 24V dc powered applications, only use a regulated supply suitable for fire protective signalling service, such as the PSM800.
- For powered circuit operation, route the positive conductor through the RIM800 to the external device, while connecting the common (neutral) conductor to the external circuit.
- For dry contact switching, connect the external circuit to the COM and N/O or N/C terminals for normally open or normally closed operation as required.
- Verify that relay wiring is correct for the RIM800 before connecting to the addressable loop circuit.
- For connection to an HVR800 High Voltage Relay Module, refer to Publication 17A-03-HVR.

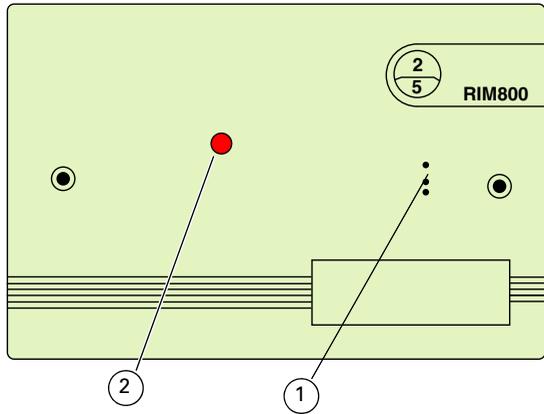


Fig. 2: RIM800 Relay Input Module Facia Plate

- 1– Address setting port
- 2– LED

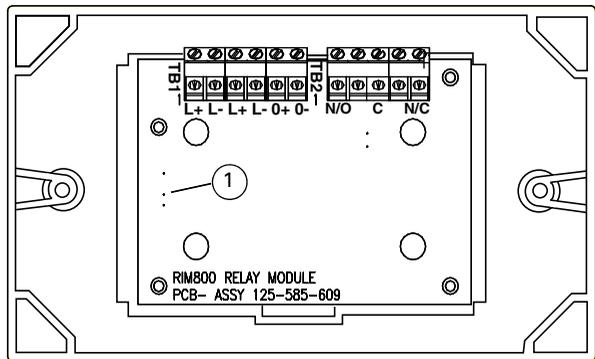


Fig. 3: RIM800 Simplified Wiring Diagram

- 1– Address setting port

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. 5.
- 2 Assemble the chassis plate into the housing and secure using fixing screw, as Fig. 4.
- 3 Connect the chassis plate earth lead to the housing, as Fig. 4.

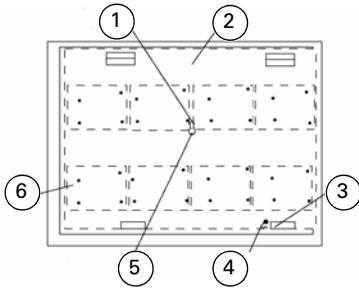


Fig. 4: ANC-8 - Chassis Plate

1- Chassis plate fixing screw

2- Chassis plate

3- Cover earth

4- Chassis plate earth

5- Transit screw

6- Typical position of 800 modules (4 per row)

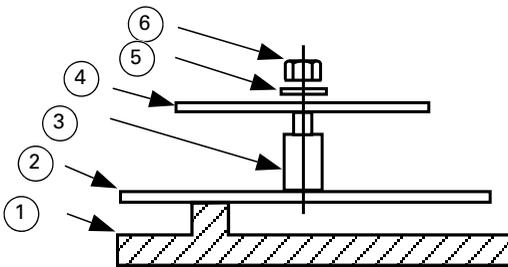


Fig. 5: ANC-8 - PCB Fixing Detail

1- Housing

2- Plate

3- Nylon spacer

4- Ancillary PCB

5- Plain washer

6- Nylock nut

Installation to M520 double gang cover

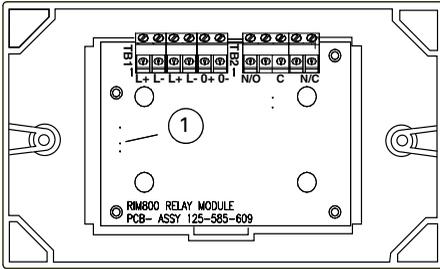


Fig. 6: RIM800 Fitted to Cover
1– Address programming port

How to install to a M520 double gang cover

- 1 Assemble the RIM800 to the M520 Double Gang cover, using the four screws and washers provided.
- 2 Snap on the ancillary housing PCB cover.
- 3 Fit cover onto MK backbox.
- 4 If an IP22 rating is required additional sealing must be applied. Apply Loctite S1595 silicone sealant around the LED, as shown in Fig. 7. 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.

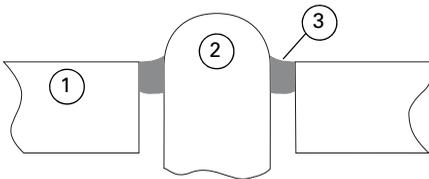


Fig. 7: Sealed LED
1– Cover
2– LED
3– Sealant

Address programming

The RIM800 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 RIM800 may be programmed with the address prior to being installed, by using the internal programming port (see Fig. 6 on page 5), or after being installed by using the programming port on the front cover (see Fig. 2 on page 3).



Device location and address number

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

Cabling

The module will accept one 1.5mm² or one 2.5mm² cables.

Ordering information

Name	Stock code number
RIM800 Relay Input Module	568.800.003
RIM800 Relay Input Module c/w Cover	568.800.033
M520 Double-Gang Cover	517.035.007
ANC-8 Ancillary Housing assy	557.180.096.A.T.Y

Table 2: Ordering information

CPR Information



0832

Tyco Fire & Security GmbH
 Victor von Bruns-Strasse 21
 8212 Neuhausen am Rheinfall
 Switzerland

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DoP-2015-4030

EN 54-18: 2005

Input-output device for use in fire
 detection and alarm systems in buildings
 RIM800

Essential Characteristics

EN 54-18: 2005

Response delay (response time): Pass
 Performance under fire conditions: Pass
 Operational reliability: Pass
 Durability of operational reliability; tempera-
 ture resistance: Pass
 Durability of operational reliability; vibration
 resistance: Pass
 Durability of operational reliability; humidity
 resistance: Pass
 Durability of operational reliability; corrosion
 resistance: Pass
 Durability of operational reliability; electrical
 stability: Pass

Installation Instructions
 120.415.502_17A-03-RIM
 Service Instructions 17A-04-S