RIM800 Relay Interface Module

**Fig. 1: RIM800 Relay Interface Module**

### Technical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type Identification Value:</td>
<td>161</td>
</tr>
<tr>
<td>System Compatibility:</td>
<td>Use only with MX Fire Alarm Controllers</td>
</tr>
<tr>
<td>Environment:</td>
<td>Indoor Application only</td>
</tr>
<tr>
<td>Operating Temperature:</td>
<td>-25 °C to +70 °C</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>-40 °C to +80 °C</td>
</tr>
</tbody>
</table>

**Table 1: Technical Specifications**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Humidity:</td>
<td>Up to 95 % non-condensing</td>
</tr>
<tr>
<td>Dimensions (HWD):</td>
<td>87 x 148 x 14 mm</td>
</tr>
<tr>
<td>Mounting Requirements</td>
<td>MK backbox surface mount or an ANC8 ancillary housing</td>
</tr>
<tr>
<td>Wire Size</td>
<td>Min 1.5 mm² Max 2.5 mm²</td>
</tr>
<tr>
<td>Battery Requirements</td>
<td>Standby current: 0.46 mA max 4.5 mA max</td>
</tr>
<tr>
<td></td>
<td>Alarm current:</td>
</tr>
<tr>
<td>Addressable Device Conditions</td>
<td>■ Normal</td>
</tr>
<tr>
<td></td>
<td>■ Active</td>
</tr>
<tr>
<td></td>
<td>■ Output Stuck</td>
</tr>
<tr>
<td></td>
<td>■ Device Type Invalid</td>
</tr>
<tr>
<td></td>
<td>■ Device No Response</td>
</tr>
<tr>
<td>Relay Contact Rating:</td>
<td>DC - 2 A @ 24 V dc</td>
</tr>
</tbody>
</table>

**NOTICE**

The unit must not be used to switch mains voltages.

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Fixing instructions Doc. version 5.0
**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.
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.

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**Fig. 2: RIM800 Relay Input Module Facia Plate**

1 – Address setting port
2 – LED

**Fig. 3: RIM800 Simplified Wiring Diagram**

1 – Address setting port
**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

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.

How to install to a M520 double gang cover

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Stock code number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIM800 Relay Input Module</td>
<td>568.800.003</td>
</tr>
<tr>
<td>RIM800 Relay Input Module c/w Cover</td>
<td>568.800.033</td>
</tr>
<tr>
<td>M520 Double-Gang Cover</td>
<td>517.035.007</td>
</tr>
<tr>
<td>ANC-8 Ancillary Housing assy</td>
<td>557.180.096.A.T.Y</td>
</tr>
</tbody>
</table>

Table 2: Ordering information
CPR Information

Tyco Fire & Security GmbH
Victor von Bruns-Strasse 21
8212 Neuhausen am Rheinfall
Switzerland
15
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; temperature 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