Addressable door release module

CIOP-7273
Installation manual

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Addressable door release module

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Description:

BS 7273-4:2015 is the code of practice governing door holders and door release mechanisms in the UK.

The CIOP-7273 Eaton Fire module allows addressable systems to comply with the demands of class A doors and their release in the event of the full range of scenarios as detailed in BS7273-4 standard.

The unit is a 2 way soft addressed output module, incorporating integral short circuit isolators.

The relay boards are fully compatible with the current range of Eaton intelligent addressable control panels.

The units are suitable for switching low voltage (24V DC @ 2A maximum), via a set of non-latching relay contacts. The flexibility of these modules is further enhanced by the fact that each output can be programmed for the full range of triggers required by BS7273-4 such as disablements, fault, fire, pre-alarm, fire routing equipment, fire protecting equipment, with up to 16 different trigger sources per output.

The trigger source can be global, by panel, by loop, by zone or by address. The logic is available in both OR/AND functions. The unit has additional inputs which can initiate a reset and test function.

The unit can be programmed using the Site Installer PC software using the RS232 port. This module requires external power.

Features:

- Integral short circuit isolator
- Single address
- 2 outputs
- Reset button
- 16 settings per output
- Trigger types: pre-alarm, FRE, FPE, reset, fire, fault, disablement, test
- Trigger source: global, by panel, by loop, by zone, by address
- Logic functions (OR and AND)

Overview:

- Jumper Bank J13 should be set to RS232 so that the rules can be configured using Site Installer
- Jumper Bank J13 must be set to Loop for the rules to take affect
- Reset button: press the button to reset the CIOP-7273
- There are no serviceable parts so no maintenance
- The relays can support hardware that uses a closed contact (N/C) or an open contact (N/O) as the alarm condition.
- The relay markings indicate their default state for alarm condition. They will be in the opposite state when energized for normal operation.

<table>
<thead>
<tr>
<th>Loop</th>
<th>Min</th>
<th>Nom</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quiescent Current</td>
<td>450μA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Loop Voltage</td>
<td>18.5V DC</td>
<td>30V DC</td>
<td></td>
</tr>
<tr>
<td>Outputs</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommended Loop Cable Type: FIRETUF, FP200, MICC

Part codes:

<table>
<thead>
<tr>
<th>Order Code</th>
<th>Description</th>
<th>Dimensions</th>
<th>Weight</th>
<th>Humidity (Non-Condensing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIOP-7273</td>
<td>Addressable Door Release Module</td>
<td>130 x 180 x 60mm</td>
<td>0.46Kg</td>
<td>95% RH</td>
</tr>
</tbody>
</table>

Short circuit isolation:

This addressable device contains an integral short circuit isolator, which operates between the -VE LOOP IN terminal and the -VE LOOP OUT terminal. The isolator operates in conjunction with the Eaton Addressable Control Panel when a low parallel resistance fault of typically 2k Ω is present between the +VE and the -VE of the loop wiring.
Installation Instructions:

**Step 1:**
Drill hole through the side of the box for glands.

**Step 2**
Drill 4 holes in wall spaced as shown below:

![Diagram showing hole spacing](image)

**Step 3:**
Attach Box Base to wall using M4 screws and plugs where suitable.

![Diagram of box base attachment](image)

**Step 4:**
Attach PCB to the Box Base using M4 x 8mm screws in each corner.

![Diagram showing PCB attachment](image)

**Step 5: Site Installer Operation**

1. Run the application Site Installer, Add Site and Retrieve Panel site

2. At first, the device appears as a Repeater with a question mark. Select the Repeater by right-clicking on the icon, then select ‘Edit Repeater’. Make sure Repeater Type is set to CIOP-7273

3. Select an Output and select ‘Add Rule’

The rules that can be selected for the CIOP-7273 are Fire, Fault, Disablement, Test Panel, Test Zone, Pre-Alarm, FRE, FPE, and RESET.

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**Short Circuit Isolation Data (Integral with each device)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Loop Resistance for correct operation of short circuit isolator</td>
<td>500Ω (max)</td>
</tr>
<tr>
<td>Parallel Fault Resistance to be seen at the Control Panel for isolators to open</td>
<td>2000Ω (typ)</td>
</tr>
<tr>
<td>Continuous Current allowable through isolator</td>
<td>700mA (max)</td>
</tr>
<tr>
<td>Isolator Resistance in closed state</td>
<td>0.26Ω (max)</td>
</tr>
<tr>
<td>Leakage Current into direct short circuit with isolator open</td>
<td>14mA (max)</td>
</tr>
<tr>
<td>Voltage at which isolator changes from open to close or close to open state</td>
<td>3.8V to 11V</td>
</tr>
<tr>
<td>Maximum switching current to isolator</td>
<td>1.5A</td>
</tr>
</tbody>
</table>
A. Each Output on the CIOP-7273 can have a number of different rules defined. These are the different options which can be selected for each rule:
- Global
- By Zone
- By Address
- By Panel
- By Loop

Note: Trigger Types; FRE and FPE can only go by Global Trigger Source

B. Example:
To select the CIOP-7273 to respond to fire by address:
1. Select Trigger Type as Fire
2. Select Option ‘By Address’
3. Select the Address to Respond to (in our example we have selected Address 29)
4. Click OK

The CIOP-7273 Interface allows additional control. Rules can be evaluated with AND logic, where all conditions must be present for the output to trigger. Alternatively, OR logic, where any condition may be present to activate the output.

The exception to this rule is FRE input trigger type, which if added, means regardless of the selected logic, FRE is always required for the output to activate.

How to use the Site Installer to download the rules:
1. CIOP-7273
   - Change the jumper on J13 from LOOP to RS232 SETUP
   - Press the RESET button on the CIOP-7273
   - Connect a serial cable to the RS232 port

Site Installer
The repeater configuration is not stored on the panel but instead directly uploaded to the repeater hardware directly.

To perform the upload, RIGHT click on the icon in site installer and select ‘Send Repeater’. The download from Site Installer will commence.

CIOP-7273
- Remove the serial cable to the CIOP-7273
- Change the jumper on J13 from RS232 SETUP back to LOOP
- Press the RESET button on the CIOP-7273
- Reset the Panel that the CIOP-7273 is connected to

Step 6:
Secure the box lid to the box base with plastic captive screws.