

Installation Manual: PAD300-6XRM Multi Relay Module

NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the PAD300-6XRM module. This module is only compatible with addressable fire systems that utilize the PAD Addressable Protocol.

All terminals are power limited and should be wired in accordance with the requirements of NFPA 70 (NEC) and NFPA 72 (National Fire Alarm Code). Failure to follow the wiring diagrams in the following pages will cause the system to not operate as intended. For further information, refer to the control panel installation instructions.

The module shall only be installed with listed control panels. Refer to the control panel installation manual for proper system operation.

1. Description

The PAD300-6XRM module uses up to six (6) SLC loop addresses to provide six (6) programmable Form C relay contacts. The PAD300-6XRM resides on a stacker bracket for mounting in the fire alarm control panel, intelligent power supply, and AE cabinets. Dip switches are used to set addresses and define unused points. The PAD300-6XRM utilizes LED indicators for each relay output. Green indicates a normal condition on a circuit. Red indicates an activation of the relay. If the LED blink has been disabled via the programming software, in a normal condition the LED of the device will be off.

2. Setting the Address

Each PAD300-6XRM device requires an address prior to connection to the panel's SLC loop. Each device's address is set by changing the dip switches located on the device. The PAD300-6XRM is addressed using the first seven (7) dip switches on the ADDRESS bank of dip switches with an address range of 1 to 122.

Note: Dip switch eight (8) is not used.

The first address is set using the dip switches. The next five (5) consecutive addresses will then be populated. Example: dip switches are set as address one (1) for the first relay output. Addresses two (2) through six (6) are then automatically assigned for the remaining relay outputs on the module. The table below may be used to set dip switches when addressing the PAD300-6XRM. Addresses 123 through 127 do not show in the chart below as the largest address that can be set with the dip switches on this device is address 122.

Figure 1. PAD Device Dip Switch Addresses Table (Addresses 1–127)

	1	2	4	8	16	32	64
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							

	1	2	4	8	16	32	64
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
51							
52							

	1	2	4	8	16	32	64
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
76							
77							

	1	2	4	8	16	32	64
78							
79							
80							
81							
82							
83							
84							
85							
86							
87							
88							
89							
90							
91							
92							
93							
94							
95							
96							
97							
98							
99							
100							
101							
102							

	1	2	4	8	16	32	64
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
121							
122							

Note: Each "gray" box indicates that the dip switch is "On," and each "white" box indicates "Off."

The examples shown below illustrate a PAD device's dip switch settings: the first example shows a device *not addressed* where all

INSTALLATION MANUAL: PAD300-6XRM MULTI RELAY MODULE

dip switch settings are in the *default "Off" position*, the 2nd illustrates an *addressed PAD device* via the dip switch settings.

Figure 2. Examples of PAD Device Showing Default Dip Switch Setting (Unaddressed) & Addressed PAD Device



Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the SLC or device.

- Power to the SLC is removed.
- Field wiring on module is correctly installed.
- Field wiring has no open or short circuits.

3. Technical Specifications

Operating Voltage	24.0V
Max SLC Standby Current	1mA
Max SLC Alarm Current	13mA all circuits active
Relay Contacts	2A @30VDC, 0.5A @125VAC, Power Factor = 1
Operating Temperature Range	32° to 120° F (0° to 49° C)
Operating Humidity Range	0 to 93% (non-condensing)
Max No. of Modules Per Loop	21 units
Dimensions	4.9" W x 7.3" H x 1.1" D
Mounting Options	Stacker Bracket – IPA-4000/4000V, AFC-1000/1000V, PSN-1000E, AE accessory enclosures
Shipping Weight	0.68 lbs

4. Unused Addresses

Addresses on the PAD300-6XRM can be selected as Unused. The SETTING bank of dip switches is used to set addresses as Unused. The diagram below shows how to set the dip switches for specific Unused addresses.

Note:

- Unused addresses are open for use and can be used by other devices on the SLC loop if desired.
- If all six (6) dip switch positions are set as Unused, the PAD300-6XRM will enable the first address by default.

Figure 3. Unused Addresses



UP position = Unused

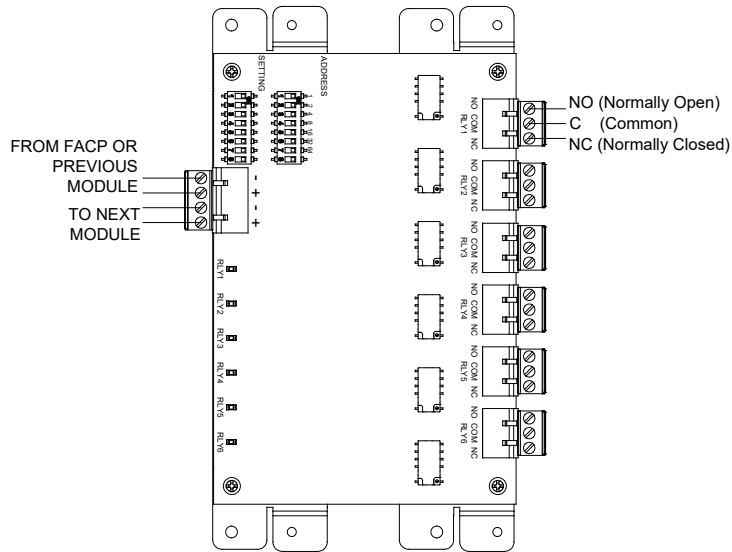
Dip Switch Position	Address
1	1
2	2
3	3
4	4
5	5
6	6

Dip switches 7 through 8 are not used on the SETTING bank of dip switches

5. Wiring Diagrams

The wiring diagram shown below illustrates how to wire a PAD300-6XRM module.

Figure 4. PAD300-6XRM wiring diagram



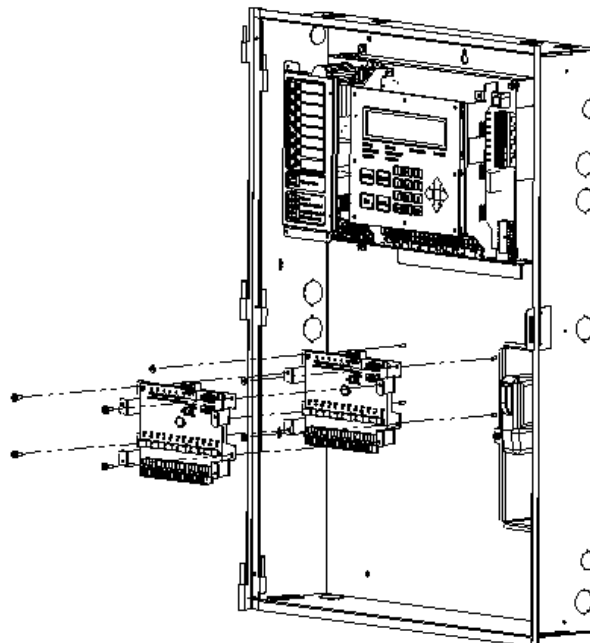
Notes:

- Contact output wiring is power limited when the device power supply is power limited. Contact output wiring is non-power limited when the device power supply is non-power limited. When using non-power-limited wiring, 30 VDC and 125 VAC relay circuits must maintain 1/4 inch separation. Use alternate back box openings and route wirings at least 1/4 inch from SLC wiring.
- SLC wiring style supports the Class A, Class B and Class X.
- SLC loop wiring (SLC+, SLC-) are power limited.
- Wiring for terminals SLC+, SLC- are supervised.
- All wiring is between #12 (max.) and #22 (min.).
- Wire Preparation – Strip all wires 1/4 inch from their edges as shown here:



- Stripping too much insulation may cause a ground fault.
- Stripping too little may cause a poor connection and subsequently an open circuit.

PAD300-6XRM can be mounted in IPA-4000/IPA-4000V, AFC-1000/AFC-1000V, PSN-1000E or AE accessory enclosures.



NOTICE

It is possible that the internal relays in the PAD300-6XRM may be shipped in the non-normal / activated state. To ensure that the internal relay is set to the normal state, connect the module to the SLC loop and reset the control panel before terminating the wiring to the module's output.

These instructions do not purport to cover all the details or variations in the equipment described, nor provide for every possible contingency to be met in connection with installation, operation and maintenance.

Specifications subject to change without prior notification.

For Technical Assistance contact Potter Electric Signal Company at 866-956-1211.

Actual performance is based on proper application of the product by a qualified professional.

Should further information be desired or should particular problems arise, which are not covered sufficiently for the purchaser's purpose, the matter should be referred to a distributor in your region.