

## Installation Manual: PAD100-LEDK LED with Key Switch Module

### NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the PAD100-LEDK 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 PAD100-LEDK module provides a mappable key-switch input making it ideal for key control of a variety of system functions. The PAD100-LEDK provides a mappable red LED which can be used to indicate a variety of status conditions. The module mounts on either a single gang box or Potter P32-BB/DBB box.

### 2. Setting the Address

All PAD protocol detectors and modules require an address prior to connection to the panel's SLC loop. Each PAD device's address (*i.e.*, detector and/or module) is set by changing the dip switches located on the device. PAD device addresses are comprised of a **seven (7) position dip switch** used to program each device with an address ranging from 1–127.

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

| 1  | 2 | 4 | 8 | 16 | 32 | 64 | 1  | 2 | 4 | 8 | 16 | 32 | 64 | 1  | 2 | 4 | 8 | 16 | 32 | 64 | 1   | 2 | 4 | 8 | 16 | 32 | 64 | 1   | 2 | 4 | 8 | 16 | 32 | 64 |
|----|---|---|---|----|----|----|----|---|---|---|----|----|----|----|---|---|---|----|----|----|-----|---|---|---|----|----|----|-----|---|---|---|----|----|----|
| 1  |   |   |   |    |    |    | 27 |   |   |   |    |    |    | 53 |   |   |   |    |    |    | 78  |   |   |   |    |    |    | 103 |   |   |   |    |    |    |
| 2  |   |   |   |    |    |    | 28 |   |   |   |    |    |    | 54 |   |   |   |    |    |    | 79  |   |   |   |    |    |    | 104 |   |   |   |    |    |    |
| 3  |   |   |   |    |    |    | 29 |   |   |   |    |    |    | 55 |   |   |   |    |    |    | 80  |   |   |   |    |    |    | 105 |   |   |   |    |    |    |
| 4  |   |   |   |    |    |    | 30 |   |   |   |    |    |    | 56 |   |   |   |    |    |    | 81  |   |   |   |    |    |    | 106 |   |   |   |    |    |    |
| 5  |   |   |   |    |    |    | 31 |   |   |   |    |    |    | 57 |   |   |   |    |    |    | 82  |   |   |   |    |    |    | 107 |   |   |   |    |    |    |
| 6  |   |   |   |    |    |    | 32 |   |   |   |    |    |    | 58 |   |   |   |    |    |    | 83  |   |   |   |    |    |    | 108 |   |   |   |    |    |    |
| 7  |   |   |   |    |    |    | 33 |   |   |   |    |    |    | 59 |   |   |   |    |    |    | 84  |   |   |   |    |    |    | 109 |   |   |   |    |    |    |
| 8  |   |   |   |    |    |    | 34 |   |   |   |    |    |    | 60 |   |   |   |    |    |    | 85  |   |   |   |    |    |    | 110 |   |   |   |    |    |    |
| 9  |   |   |   |    |    |    | 35 |   |   |   |    |    |    | 61 |   |   |   |    |    |    | 86  |   |   |   |    |    |    | 111 |   |   |   |    |    |    |
| 10 |   |   |   |    |    |    | 36 |   |   |   |    |    |    | 62 |   |   |   |    |    |    | 87  |   |   |   |    |    |    | 112 |   |   |   |    |    |    |
| 11 |   |   |   |    |    |    | 37 |   |   |   |    |    |    | 63 |   |   |   |    |    |    | 88  |   |   |   |    |    |    | 113 |   |   |   |    |    |    |
| 12 |   |   |   |    |    |    | 38 |   |   |   |    |    |    | 64 |   |   |   |    |    |    | 89  |   |   |   |    |    |    | 114 |   |   |   |    |    |    |
| 13 |   |   |   |    |    |    | 39 |   |   |   |    |    |    | 65 |   |   |   |    |    |    | 90  |   |   |   |    |    |    | 115 |   |   |   |    |    |    |
| 14 |   |   |   |    |    |    | 40 |   |   |   |    |    |    | 66 |   |   |   |    |    |    | 91  |   |   |   |    |    |    | 116 |   |   |   |    |    |    |
| 15 |   |   |   |    |    |    | 41 |   |   |   |    |    |    | 67 |   |   |   |    |    |    | 92  |   |   |   |    |    |    | 117 |   |   |   |    |    |    |
| 16 |   |   |   |    |    |    | 42 |   |   |   |    |    |    | 68 |   |   |   |    |    |    | 93  |   |   |   |    |    |    | 118 |   |   |   |    |    |    |
| 17 |   |   |   |    |    |    | 43 |   |   |   |    |    |    | 69 |   |   |   |    |    |    | 94  |   |   |   |    |    |    | 119 |   |   |   |    |    |    |
| 18 |   |   |   |    |    |    | 44 |   |   |   |    |    |    | 70 |   |   |   |    |    |    | 95  |   |   |   |    |    |    | 120 |   |   |   |    |    |    |
| 19 |   |   |   |    |    |    | 45 |   |   |   |    |    |    | 71 |   |   |   |    |    |    | 96  |   |   |   |    |    |    | 121 |   |   |   |    |    |    |
| 20 |   |   |   |    |    |    | 46 |   |   |   |    |    |    | 72 |   |   |   |    |    |    | 97  |   |   |   |    |    |    | 122 |   |   |   |    |    |    |
| 21 |   |   |   |    |    |    | 47 |   |   |   |    |    |    | 73 |   |   |   |    |    |    | 98  |   |   |   |    |    |    | 123 |   |   |   |    |    |    |
| 22 |   |   |   |    |    |    | 48 |   |   |   |    |    |    | 74 |   |   |   |    |    |    | 99  |   |   |   |    |    |    | 124 |   |   |   |    |    |    |
| 23 |   |   |   |    |    |    | 49 |   |   |   |    |    |    | 75 |   |   |   |    |    |    | 100 |   |   |   |    |    |    | 125 |   |   |   |    |    |    |
| 24 |   |   |   |    |    |    | 50 |   |   |   |    |    |    | 76 |   |   |   |    |    |    | 101 |   |   |   |    |    |    | 126 |   |   |   |    |    |    |
| 25 |   |   |   |    |    |    | 51 |   |   |   |    |    |    | 77 |   |   |   |    |    |    | 102 |   |   |   |    |    |    | 127 |   |   |   |    |    |    |
| 26 |   |   |   |    |    |    | 52 |   |   |   |    |    |    |    |   |   |   |    |    |    |     |   |   |   |    |    |    |     |   |   |   |    |    |    |

**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 1st example shows a device *not addressed* where all 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.

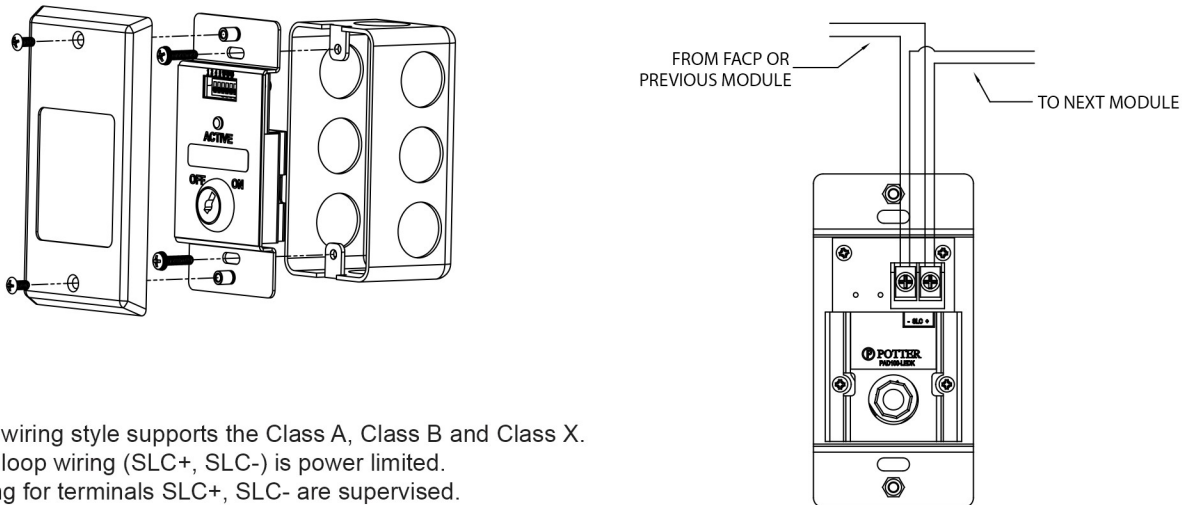
## 3. Technical Specifications

|                             |                                         |
|-----------------------------|-----------------------------------------|
| Operating Voltage           | 24.0V                                   |
| Max SLC Standby Current     | 200 $\mu$ A                             |
| Max SLC Alarm Current       | 200 $\mu$ A                             |
| Operating Temperature Range | 32° to 120° F (0° to 49° C) Indoor Only |
| Operating Humidity Range    | 0 to 93% (non-condensing)               |
| Max no. of Module Per Loop  | 127 units                               |
| Dimensions                  | 4.75" L x 2.75" W x 1" D                |
| Mounting Options            | Single gang box or Potter P32-BB/DBB    |
| Shipping Weight             | 0.65 lbs                                |

## 4. Wiring Diagrams

The wiring diagram shown below illustrates how to wire a PAD100-LEDK module. Additionally, an installation diagram shows how to install the module using a compatible electrical box.

Figure 3. Examples of Installing a PAD100-LEDK Using a Compatible Electrical Box & Back View Wiring a PAD100-LEDK



### Notes:

- SLC wiring style supports the Class A, Class B and Class X.
- SLC loop wiring (SLC+, SLC-) is 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.

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.