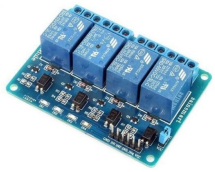


POTTER TRM-4 Twin Relay Module Installation Guide

Contents

POTTER

POTTER TRM-4 Twin Relay Module

NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the Twin Relay Module (TRM-4). This module is only compatible with addressable fire systems that utilize the Potter/Nohmi addressable protocol. SLC loop wiring (signal line circuit) is power limited. The wiring connecting the contact output (terminal NO1, C1, NC1, NO2, C2, NC2) to the controlled device is power limited when the power supply is power limited. All terminals 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.

Description

The TRM-4 module has two Form C relay contact that can be programmed to activate when mapped devices detect active conditions. Those two Form C relay contacts shall activate simultaneously. The relay condition between C1 and NO1, and C2 and NO2 is Normally-open connection, and the condition between C1 and NC1, and C2 and NC2 is Normally-close connection. When the TRM-4 receives the command to operate the relay contact, TRM-4 will connect the C1 to NO1 and C2 to NO2, and disconnect the C1 from NC1 and C2 from NC2.

TRM-4 employs one red LED to indicate the status. In normal condition, the LED flashes. When the relay contact is activated, the LED will turn on constantly. The system allows maximum 13 points illuminating constantly therefore if additional devices are in the alarm condition, the LED will flash rather than latch on steady.

Setting the Address

Each addressable module, smoke sensor, heat detector and combination sensor/detector must have the address set prior connecting the device to the SLC loop. The address is set using the hand held device programmer.

Prior to connecting a device to the SLC loop, the following precautions should be taken to prevent potential damage to SLC or device. Verify the following before proceeding. Document discrepancies and notify appropriate personnel.

1. Power in the Addressable Module is removed
2. Field wiring on the module is correctly installed.
3. Field wiring has no open or short circuits.

Wiring diagram

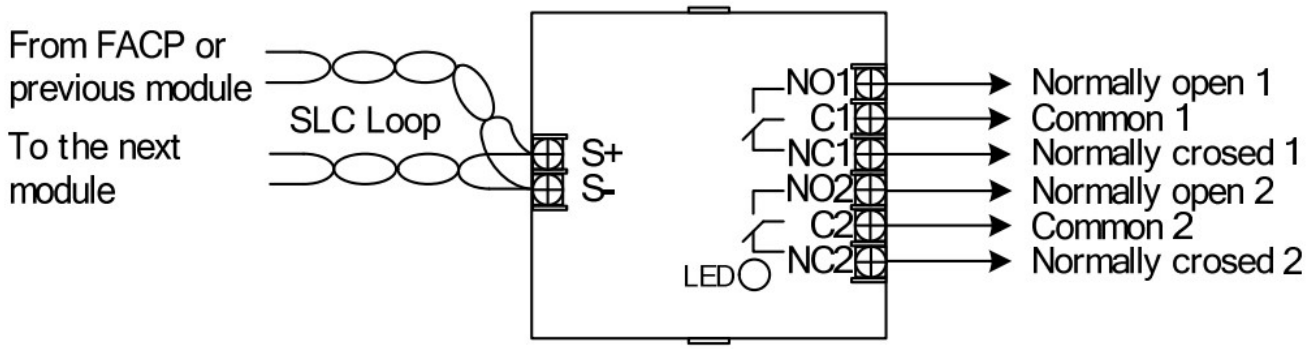


Figure 1: Wiring diagram of TRM-4

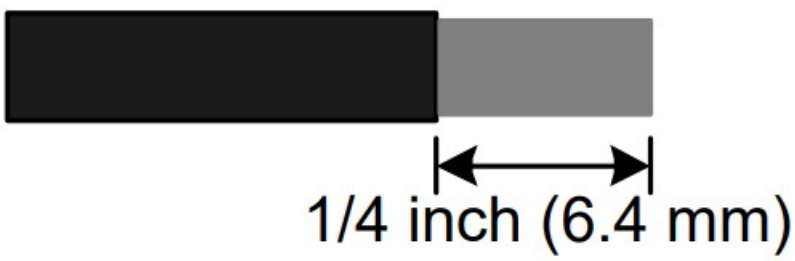
IMPORTANT

Before connecting to the relay connection(s) of the TRM-4, connect the module to the SLC loop and reset it with the FACP. This is necessary to ensure that the internal relay is unlatched. Connection of the module with this relay in the latched state (terminal between NO1 and C1, and NO2 and C2 are short) will activate the output device possibly causing damage.

Note:

1. SLC wiring style is applicable to the NFPA Class A (Style 6, 7) & Class B (Style 4).
2. SLC loop wiring (S+, S-) is power limited.
3. Contact output wiring (NO1, C1, NC1, NO2, C2, NC2) 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. Do not mix power limited and non power limited wiring on two contact output. When using non power limited wiring, it must use an alternate opening in the back box and the wire routed at least 1/4 inches from the SLC wiring.
4. Wiring for terminals S+, S- are supervised.
5. All wiring is between #14 (2.08 mm2) (max.) and #22 (0.32 mm2) (min.).
6. Wire Preparation

Strip all wires 1/4 inch from their edges as follows:



Note:

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

Installation Instructions

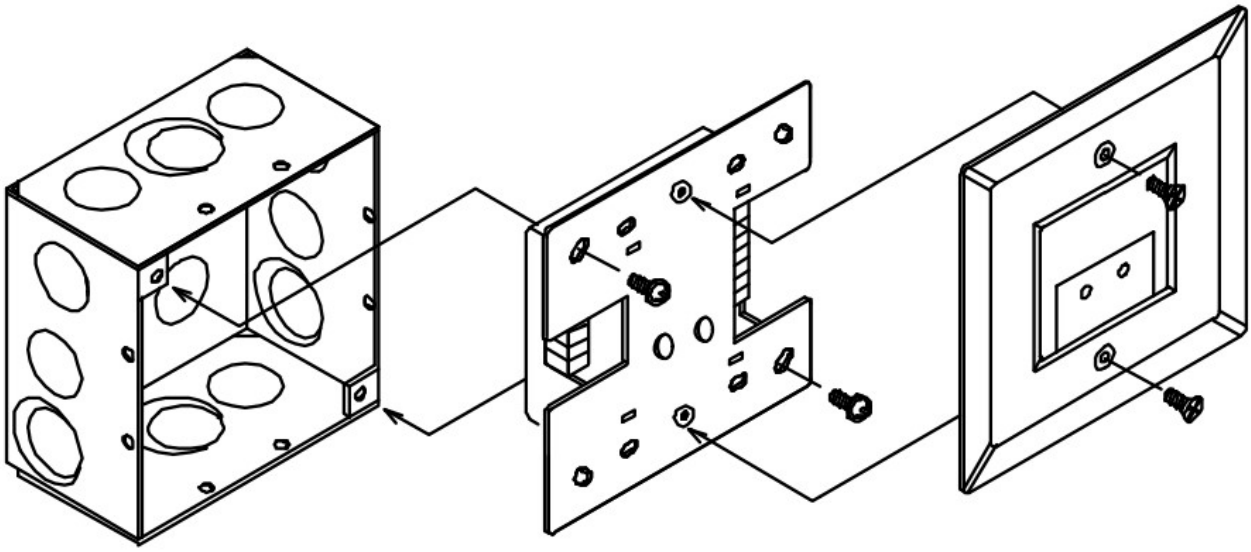


Figure 2: Installation into compatible electrical box

Specifications

No.	Item	Specification		
1	Rated voltage range of SLC input power (S+,S-)	22.0 to 24.0V		
2	Maximum SLC 24 VDC standby current (S+,S-)	250μA		
3	Maximum SLC 24 VDC alarm current (S+,S-)	1mA		
4	Contact output style	Typical Form C × 2		
5	Output rating (resistive)	24VDC	2A	*Refer to above section 3 n ote
		125VAC	0.5A	
6	Operating temperature range	32 to 120°F (0 to 49°C)		
7	Operating humidity range	0 to 93% (non-condensing)		
8	Maximum no. of module per loop	127 units		
9	Dimensions	4.17”(106mm) (H) × 4.17”(106mm) (W) × 1.14”(29mm) (D)		
10	Applicable electrical box for installation	2-1/2”(64mm)deep 2-gang box Standard 4”square box 1-1/2”(38mm)deep box		

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 800-325-3936 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 Potter-Nohmi or a distributor in your region.

Documents / Resources

	POTTER TRM-4 Twin Relay Module [pdf] Installation Guide TRM-4 Twin Relay Module, TRM-4, Twin Relay Module, Relay Module, Module
	POTTER TRM-4 Twin Relay Module [pdf] Owner's Manual TRM-4 Twin Relay Module, TRM-4, Twin Relay Module, Relay Module, Module

References

- Fire Alarm Resources | Download fire alarm documents
- Potter Electric: Fire Alarms & Fire Sprinkler Systems