



**TRIGA Life Safety Systems, LLC**  
 7600 Olde Eight Rd, Hudson, Ohio, 44236-1057  
 Tel: +1 330-577-5199, Email: info@trigaglobal.com

# TR-5883 Relay Interface Board Product Installation Document

PN LS10257-002TR-E:A 03/12/21 ECN: 151608

## 1 Description

The TR-5883 is a Relay Interface Board that has ten general purpose Form C relays that can be used to activate the voice evacuation, elevator recall or the HVAC fan cut-off. Each relay is activated by an open collector input from a controlling device such as a TR-5880 LED I/O module.

### 1.1. Compatibility

The TR-5883 is compatible with the Triga Series, Fire Alarm Control Panels (FACP's). For additional information, refer to the following FACP Installation Manuals.

Document	Document Part Number
TR-2100ECS Manual	LS10143-003TR-E
TR-RPS1 Manual	LS10259-002TR-E
Triga ECS Manual	LS10262-002TR-E

### 1.2 Specifications

The specifications are as follows.

- Operating Voltage: 24VDC @ 420mA Max.
- Relay Trigger Voltage: 5VDC
- For C Relay: 5.0A @ 30VDC or 250VAC resistive
- Dimensions: 10 3/8" W x 10 2/8" H x 3 1/8" D (26.37 W x 26.11 H x 8.08 D cm)
- Operating Temperature: 32° - 120°F (0° - 49° C)
- For indoor use only

## 2 Mounting

Mount the cabinet as shown in Figure 1. Install the TR-5883 circuit board as shown in Figure 2.

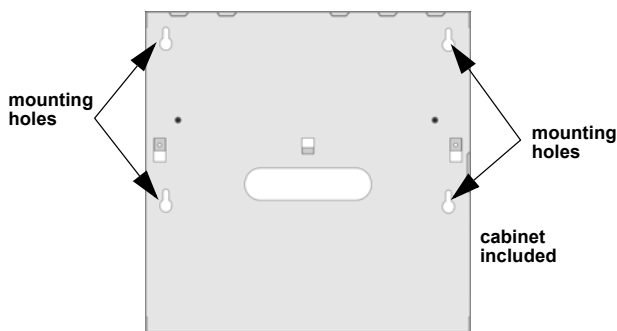


Figure 1 Cabinet Installation

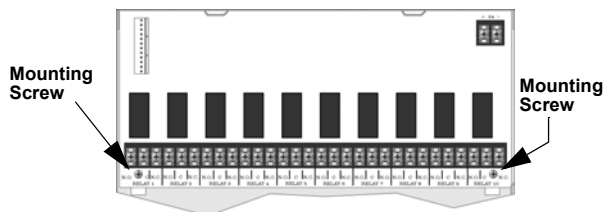


Figure 2 Circuit Board Mounting

## 3 Wiring



**NOTE:** The installation and wiring of this device shall be performed in accordance with the NFPA 72 and the local ordinances.

The following are required to wire the board.

- All wiring is supervised and power-limited.
- The 1/4" (.63 cm) spacing must be maintained between the following:
  - the high and the low voltage circuits
  - power-limited and non-power limited circuits
- When you use a combination of power-limited and non-power limited circuits, leave an unused relay in-between to maintain 1/4" (.63 cm) spacing.

Figure 3 shows an example of the wire routing.

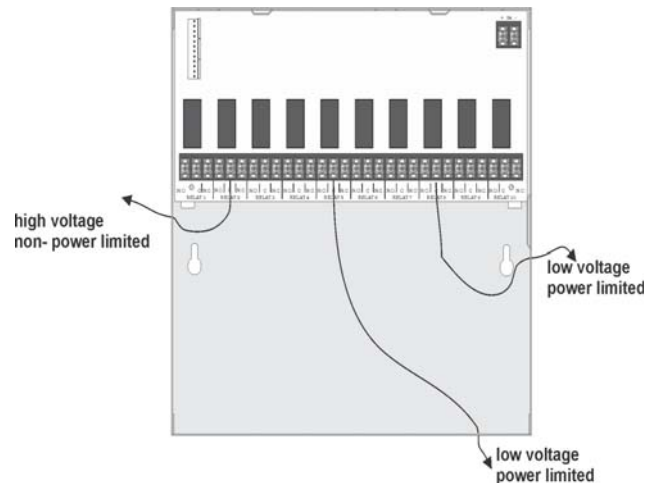


Figure 3 Wire Routing Example

### 3.1. Connecting the TR-5883 to the Auxiliary Power

Connect the TR-5883 power terminals to a 24 VDC power supply as shown in Figure 4.

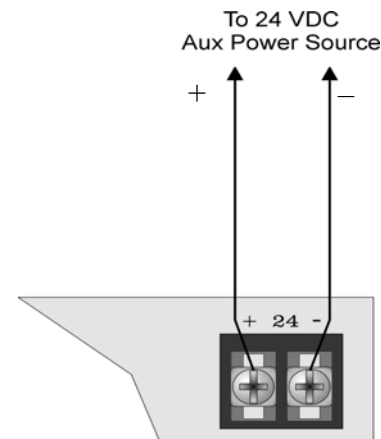


Figure 4 Auxiliary Power Connections

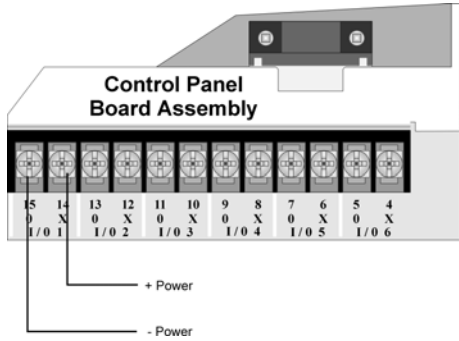


**NOTE:** The auxiliary power is supplied by a regulated UL listed power supply for Fire Protective Signaling Systems.

### 3.2 Using Flexput® Circuits for Auxiliary Power

The TR-5883 can use auxiliary power from any 24 VDC source. The following steps describe how to use the Flexput circuits as the auxiliary power source.

1. Connect the auxiliary power wires to the Flexput® terminals. Use the “X” terminals as positive power and use the “O” terminals as negative power. See Figure 5.



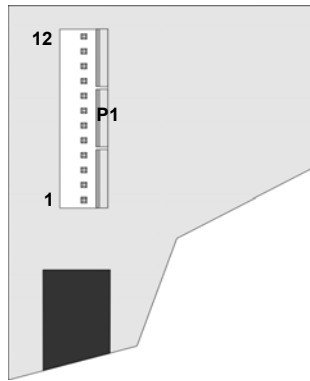
**Figure 5 Flexput Auxiliary Power Output**

2. Use programming to configure the auxiliary power output for the constant output. Refer to the ECS FACP Installation Manual, P/N: LS10262-002TR-E.

### 3.3 12-Pin Input Connector

The TR-5883’s 12-Pin Input Connector (P1) plugs directly onto any of the 12-Pin Connectors on the TR-5880 LED I/O Module.

**Note:** TR-5883 must be wired with 3 feet (.914 m) of the TR-5883 and in conduit.



**Figure 6 12-Pin Input Connector**

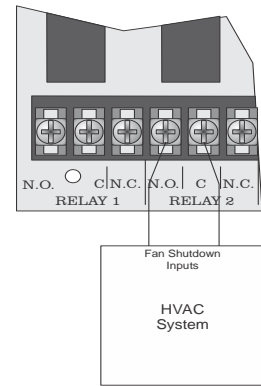
Table 1 lists the pin-outs for the P-1 Pin Connector on the TR-5883.

Pin Number	Function	Pin Number	Function
1	Trigger Relay 1	7	Trigger Relay 7
2	Trigger Relay 2	8	Trigger Relay 8
3	Trigger Relay 3	9	Trigger Relay 9
4	Trigger Relay 4	10	Trigger Relay 10
5	Trigger Relay 5	11	+5 VDC
6	Trigger Relay 6	12	Not Used

**Table 1 Pin Numbers and Functions**

### 3.4 Relay Wiring

The 10 on-board relays are all Form C relays. Figure 7 illustrates an example of how the relays can be used.



**Figure 7 Relay Wiring Example**