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

TR-5880 LED I/O Module
Product Installation Document

PN LS10256-002TR-E:A 04/27/21 ECN: 151608

1 Description

The TR-5880 is an LED I/O Module. It provides a way to customize the remote annunciator when it is used with a compatible addressable fire alarm control panel (FACP).

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

1.1 Compatibility

The TR-5880 is compatible with the following Triga Series, Fire Alarm Control Panels (FACPs):

- TR-2100
- TR-2100ECS

For information on the programming, the addressing and the wire connections, refer to 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.

SBUS Operating Voltage		24 VDC
Dry Contacts (Loop Specs)	Max. Loop Resistance	100 Ω
	Max. Loop Voltage	24 VDC
	Max. Loop Current	2 mA
Max. Current	Alarm	200 mA
	Standby	35 mA
	Each LED	10 mA
Open Collector PZT Max. Sink Current		100 mA
Operating Temperature		32° to 120° F (0° to 49° C)
Max. Wiring Distance from FACP		6,000 ft (1,829 m)
Intended for Indoor Use in a Dry Location Only		

2 Mounting the TR-5880 Enclosure

The TR-5880 is encased in a plastic enclosure which must be mounted inside the annunciator or the accessory cabinet. To mount the TR-5880 plastic enclosure into the appropriate cabinet, refer to the following steps.

1. Remove the TR-5880 cover. Use a small screwdriver, if necessary.
2. To remove the TR-5880 circuit board from the base, push outward on the base snap retaining tabs, and lift out the circuit board.
3. Mount the plastic base into the appropriate accessory cabinet.

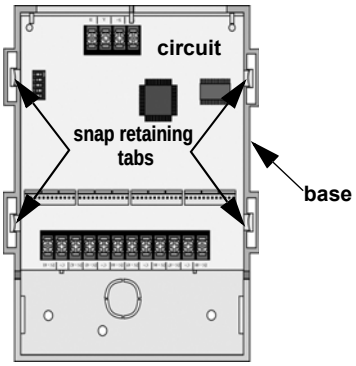

Figure 1 Circuit Board and Plastic Base

4. Reinstall the circuit board in the plastic base.

NOTE: Before you reinstall the board into the base, it may be necessary to connect the wiring to the circuit board.

3 Wiring the TR-5880 to the FACP

Terminate the wiring as shown in Figure 2 and Table 1. Note that the wiring connections are supervised and power-limited.

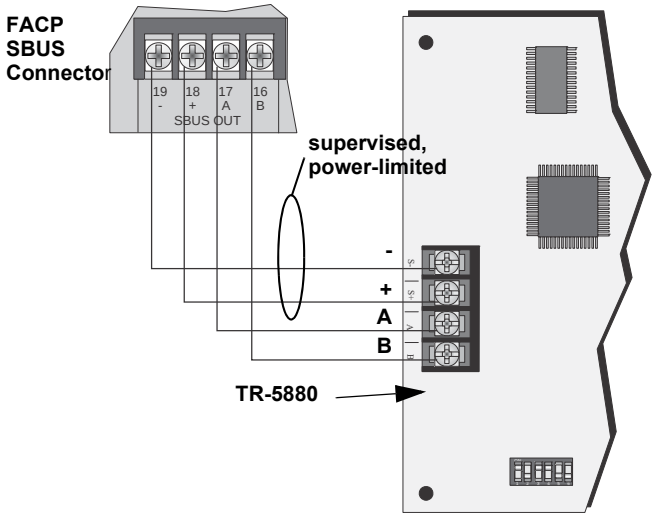

Figure 2 TR-5880 to the FACP Wiring Connections

TR-5880 Terminals	FACP Terminals(Connector)
B	B
A	A
S+	+
S-	–

Table 1 TR-5880 to the FACP Terminal Connections

3.1 Wiring the LED Outputs

The TR-5880 has four 12-pin connectors (P/N 130092) that are used to connect the LEDs. All LED outputs use a common pin on each connector for the LED power (see Figure 3). The current is limited through each output so that no series resistor is required.

On the Connector P1, the Pin 12 is an open collector output used for controlling a piezo (PZT) output. This output matches the piezo output pattern of the FACP on-board annunciator. Wire the LED outputs as shown in Figure 3. Note that the Connectors P3 and P4 are wired in the same way as the Connector P2.

NOTE: The open collector PZT output does not have a built-in current-limiting resistor. One is required to limit the max sink current (see Specifications for max sink current). The PZT output is not mappable.

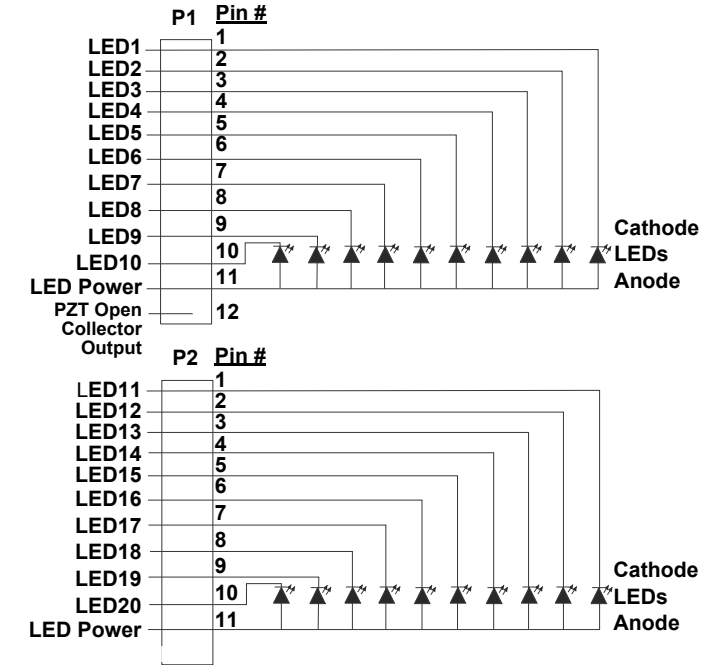

Figure 3 TR-5880 LED Outputs

3.2 Dry Contact Wiring

The TR-5880 has eight input circuits used to monitor the switch inputs such as the following:

- pull stations
- water flow
- tamper
- reset
- silence type switches

Wire the contacts as shown in Figure 4. Note that all inputs are supervised and power-limited.

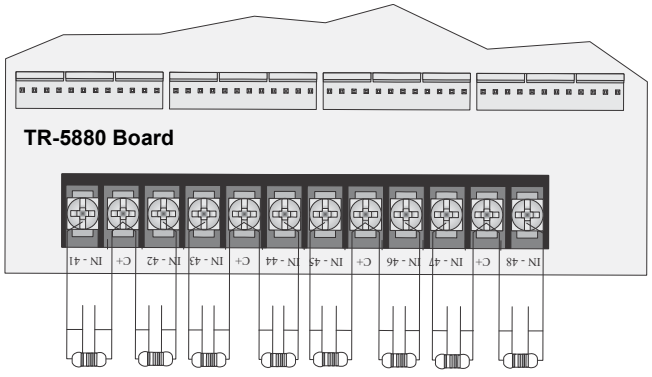

Figure 4 Dry Contact Wiring

3.3 Setting the DIP Switches

Each TR-5880 requires a unique ID number which is set using the DIP switches on the TR-5880 circuit board. Figure 5 shows the DIP switch settings. Note that the Address 0 is invalid and cannot be used.

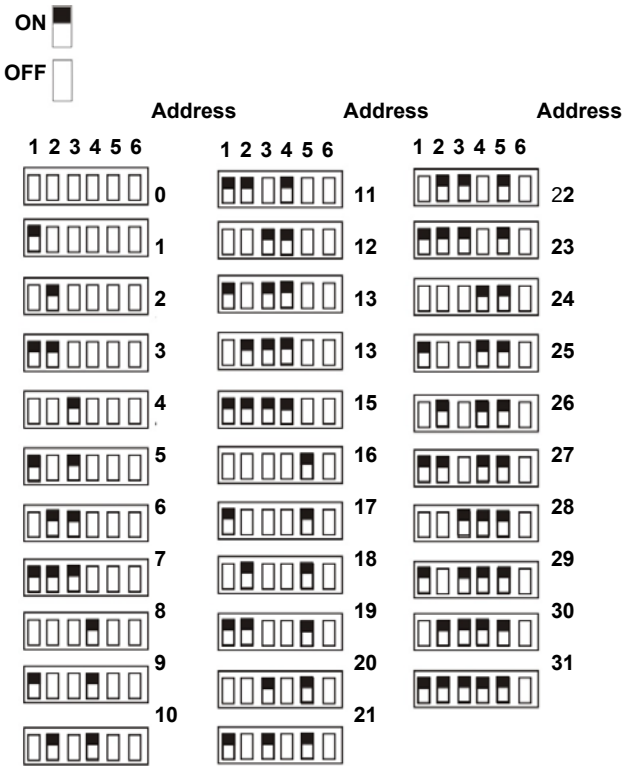

Figure 5 DIP Switch Settings