

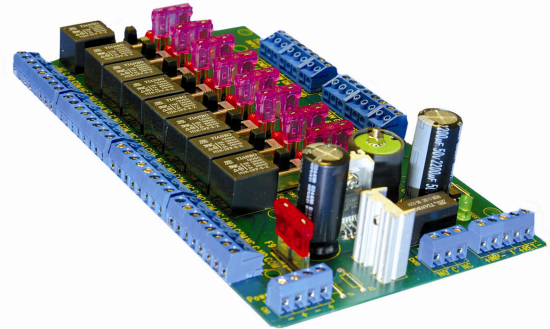


## DESCRIPTION

The P3PC-8 is multi-output programmable power distribution module that converts one 12/24 VAC/VDC voltage input to eight independently controlled power limited outputs. The outputs can also be configured as dry for "C" contacts. The outputs can be activated by an open collector sink or normally open dry trigger input from an access system, card reader, keypad, push button, PIR, etc.

Outputs can operate in either Fail-Safe or Fail-Secure modes and will power magnetic locks, electric door strikes, magnetic door holders, etc. It can be powered by either one common source or by two independent sources, one for board power and the other for accessory power.

The FACP interface can trigger emergency exit, monitoring HVAC shut down, elevator recall or other auxiliary devices. The Fire Alarm disconnect can be configured for all affected or 50/50 mode. The P3PC-8 has numerous applications for Access Control Systems that require individually protected outputs that switch independently.



## FEATURES / SPECIFICATIONS

- Eight access control system trigger inputs. Options include either eight (8) normally open (NO) inputs, eight (8) open collector sink inputs or any combination.
- Eight independently controlled outputs. Options include either eight (8) fail - safe and/or fail secure power outputs, eight (8) dry form "C" 5amp rated relay outputs or any combination.
- Main fuse is rated at 10AMPS.
- Output fuses rated at 3AMPS.
- Handles up to 28VAC/24VDC.
- Eight (8) auxiliary power outputs (un-switched).
- Red LED's indicate outputs are triggered.
- Fire alarm disconnect (latching or non-latching).
- Green LED indicates when FACP disconnect is triggered.
- Feature removeable terminal blocks for easy installation.
- FACP output relay (form "C" contact rated @ 1AMP 28VDC not evaluated by UL).
- Board dimensions: 4.5" (L) x 8" (W) x 1.625" (H).
- Lifetime Warranty

### Related Part Numbers

- P3PC-8-LE: P3PC-8 and large enclosure; dimensions 13" (H) x 15.5" (W) x 4.5"(D)

## INSTALLATION INSTRUCTIONS

**NOTE:** All installations to be performed by a qualified personal in accordance with NEC and local codes.

1. Mount P3PC-8 in desired location/enclosure. **Note:** Keep power limited wiring separate from non-power limited wiring (115VAC / 60Hz Input, Battery wires). Minimum .25" spacing must be provided. Carefully review: Terminal Identification Table. Typical Application Diagram LED Diagnostics. Hook-up Diagrams
2. **Power supply input:** The P3PC-8 can be powered with one (1) power supply which will provide power for both board operation and the locking devices or two (2) separate power supplies, one (1) to provide power for the board operation and the other to provide power for the locking devices. **Note:** The input power can be either 12 to 24 volts AC or DC (.5amp @ 12volt, .22amp @ 24volt current consumption with all relays energized).



**INSTALLATION INSTRUCTIONS CONTINUED...**

**(a) Single power supply input:** If the P3PC-8 and the locking devices are to be powered using a single power supply, connect the output (12 to 24 volts AC or DC) to the terminals marked [- Control+].

**(b) Multiple power supply inputs :** When the use of two power supplies is desired, **jumper J1 and J2** (located to the left of the power/control terminals) **must be cut**. Connect power for the P3PC-8 to the terminals marked [- Control +] and connect power for the locking devices to the terminals marked [- Power +]. **Note:** When using DC power supplies polarity must be observed. When using AC power supplies polarity need not be observed.

**Note: For UL compliance the power supplies must be UL Listed for Access Control Systems and accessories.**

- 3. **Output hookup options:** The P3PC-8 will provide either eight (8) powered (switched and/or auxiliary), eight (8) form "C", or any combination of both powered and form "C" outputs.

**(a) Switched Power outputs:** Connect the negative (-) input of the device being powered to the terminal marked [COM]. For fail-safe operation connect the positive (+) input of the device being powered to the terminal marked [NC]. For fail-secure operation connect the positive (+) input of the device being powered to the terminal marked [NO].

**(b) Form "C" outputs:** When form "C" outputs are desired the corresponding output fuse (1-8) must be removed. Connect negative (-) of the power supply directly to the locking device. Connect the positive (+) of the power supply to the terminal marked [C]. For fail-safe operation connect the positive (+) of the device being powered to the terminal marked [NC]. For fail-secure operation connect the positive (+) of the device being powered to the terminal marked [NO].

**(c) Auxiliary Power outputs (un-switched):** Connect positive (+) input of the device being powered to the terminal marked [C] and the negative (-) of the device being powered to the terminal marked [COM]. This output can be used to provide power for card readers, keypads etc.

- 4. **Input trigger hookup options:**

**(a) Normally Open [NO] input trigger:** Inputs 1-8 are activated by normally open or open collector sink inputs. Connect devices (card readers, keypads, request to exit buttons etc.) to terminals marked [IN] and [GND].

**(b) Open Collector Sink inputs:** Connect the access control panel open collector sink positive (+) to the terminal marked [IN] and the negative (-) to the terminal marked [GND].

- 5. **Fire Alarm Interface:** A normally closed [NC], normally open [NO] or reversal of polarity input from a fire alarm control panel (FACP) will trigger all outputs, except when the independent mode option is selected.

- 6. **Independent output mode:** (eight (4) outputs with FACP disconnect with or outputs without FACP disconnect). To program the independent mode set switch to the Fail Safe or Fail Secure position. In this mode of operation Fail Safe will be affected when the fire alarm interface is triggered and outputs Fail Secure will remain unaffected.

**(a) Normally Open [NO] input:** Connect the normally open FACP trigger input to the terminals marked [+ INP] and [T].

**(b) Normally Closed [NC] input:** Connect the normally closed FACP trigger input to the terminals marked [+ INP -] and install a jumper across the terminals marked [+ INP] and [T].

**(c) Signaling Circuit input trigger:** Connect the positive (+) and negative (-) from the FACP signaling circuit to the terminals marked [+ INP -]. Connect the FACP EOL or next signaling device to the terminals marked [+ RET --] (polarity is referenced in an alarm condition). **Jumper J3 must be cut.**

- 6. **FACP dry contact output:** Connect desired device to be triggered by the P3PC-8's dry contact output to the terminals marked [NO] and [C] FACP for normally open output or the terminals marked [NC] and [C] FACP for normally closed.

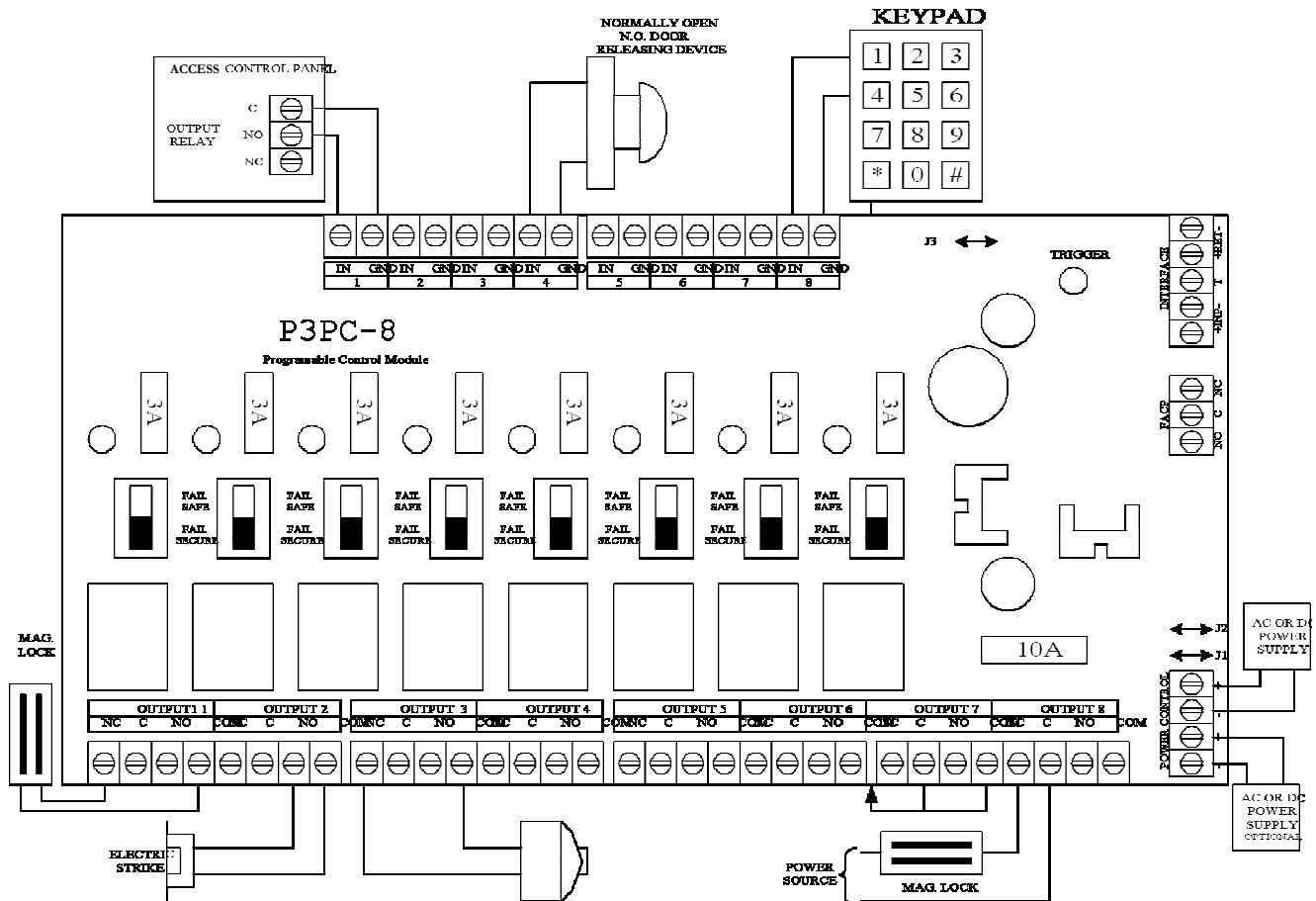
**LED Diagnostics:**

LED	ON	OFF
LED 1-LED 8 (Red)	Output relay(s) energized.	Output relay(s) de-energized.
Trigger (Green)	FACP input triggered (alarm condition).	FACP normal (non-alarm condition).



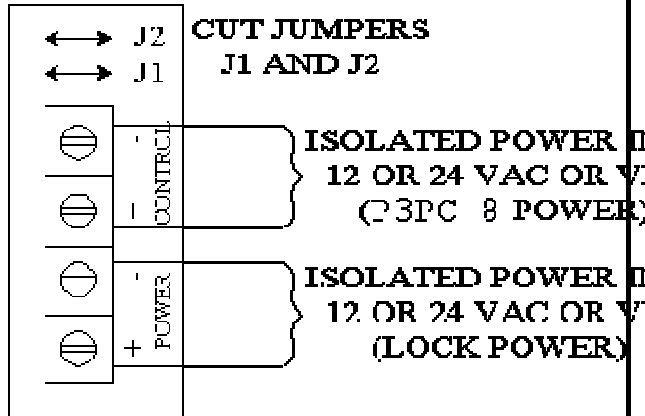
**Terminal Identification:**

Terminal Legend	Function/Description
-- Power +	12 to 24 volts AC/DC from UL Listed lock power supply.
-- Control +	12 to 24 volts AC/DC from UL Listed power supply (operates)
TRIGGER INPUT 1- INPUT 8,IN,GND	From normally open and/or open collector sink trigger inputs (Request to exit buttons, exit pir's, etc.).
OUTPUT 1-OUTPUT 8 NC, C, NO, COM	12 to 24 volts AC/DC switched controlled outputs: Fail-safe [NC positive (+) & COM Negative (-)], Fail-secure [NO positive (+) & COM Negative (-)], Auxiliary outputs (un-switched): [C positive (+) & COM Negative (-)] (When using AC power supplies polarity need not be observed), NC, C, NO convert to 5 amp 24 VAC/VDC rated form "C" dry outputs when fuses 1-8 are removed. Contacts referred to in a non-triggered state.
FACP INTERFACE T, + INPUT --	Fire Alarm Interface trigger input from FACP. Trigger inputs can be normally open, normally closed or an FACP Signal Circuit input.
FACP INTERFACE NC, C, NO	Form "C" relay contact rated @ 1 amp 28VDC for alarm reporting. (This output has not been evaluated by UL)

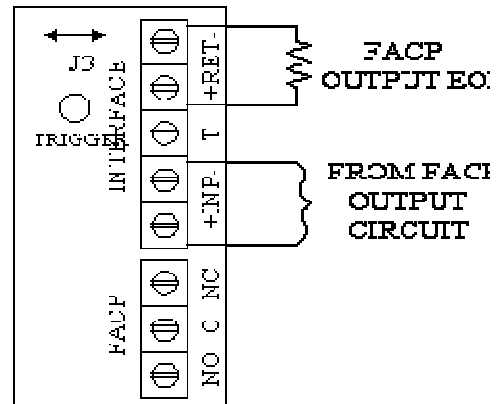




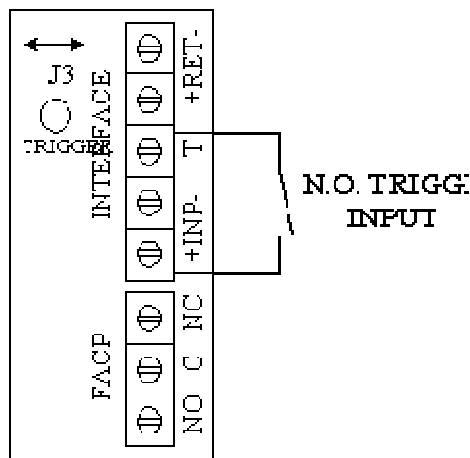
**Fig. 2** Optional hook-up using two (2) isolated power inputs:



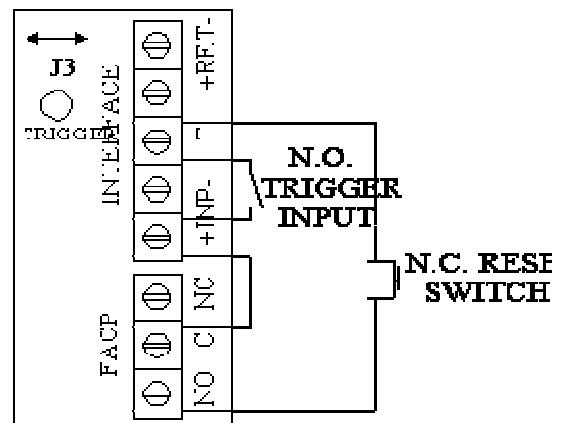
**Fig. 3** Polarity reversal input from FACP output circuit (polarity is reference in alarm condition):



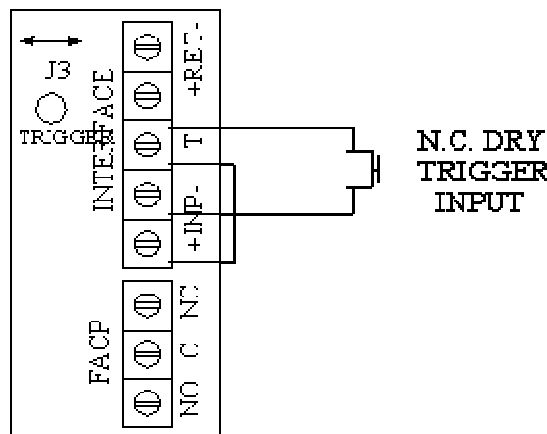
**Fig. 4** Normally open non-latching FACP trigger input:



**Fig. 5** Normally open latching FACP trigger input with reset: (This output has not been evaluated by UL)



**Fig. 6** Normally closed non-latching FACP trigger input:



**Fig. 7** Normally closed latching FACP trigger input with reset: (This output has not been evaluated by UL)

