MOM5C

Multi-Output Power Distribution Module for Access Control

Installation Guide

SECURITY SIGNALING UL LISTED

c UL LISTED

MEA Approved

Altronix®

More than just power.™

Rev. 013019

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix MOM5C multi-output power distribution module converts one (1) non power-limited DC voltage input to five (5) power-limited outputs. Each output will route power to a variety of access control hardware and devices which includes Mag Locks, Electric Strikes, Magnetic Door Holders, etc. These outputs will operate in both fail-safe and fail-secure modes. Controlled trigger input is achieved through normally open (NO) or normally closed (NC) supervised input or the polarity reversal from an FACP (Fire Alarm Control Panel). A form "C" dry output relay will enable HVAC Shutdown, Elevator Recall or trigger auxiliary devices.

Specifications:

Agency Listings:

- **UL294*** **7th edition.** Access Control System Units.
  UL1481 Standard for Safety for Fire Protective Signaling Systems.
- **MEA** NYC Department of Buildings Approved.
- **CSFM** California State Fire Marshal Approved.
- NFPA72 compliant.

Input:

- 12VDC or 24VDC from power supply.

Output:

- Five (5) individual 12VDC or 24VDC power-limited Class 2 outputs.
- Current limit is 2A @ 12VDC or 24VDC per output.

Visual Indicators:

- Red LEDs indicate condition of each power output.
- Power and input trigger LEDs.

Supervision:

- Fire Alarm Panel or Access Control System trigger inputs. (NO or NC supervised trigger input and polarity reversal trigger input).
- Output relay indicates that unit is triggered. (Form "C" contact rated 1A @ 28VDC).
- Power fail supervision relay (Form "C" contact rated 1A @ 28VDC).

Special Features:

- Will interface with most UL Listed Power Supplies.

Enclosure Dimensions:

8.125" x 7.4" x 3.55" (206.4mm x 188mm x 90.2mm).

*Access Control Performance Levels:
Destructive Attack - I; Endurance - IV; Line Security - I; Stand-by Power - I.

Installation Instructions:

1. Mount unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws, level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install the two fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws *(Enclosure Dimensions, pg. 8)*.
2. Connect DC output of the power supply to the terminals marked [– DC Input +] carefully observing polarity.
3. Connect door strikes (fail-secure) positive to terminals marked [1 through 5 Pos. (+) DC Output (Alarm)] and negative to [NEG1] through [NEG5] *(Fig. 7, pg. 6)*.
4. Connect mag locks, door holders (fail-safe) positive to terminals marked [6 through 10 Pos. (+) DC Output (Stand-by)] and negative to [NEG1] through [NEG5] *(Fig. 7, pg. 6)*.
5. To trigger the MOM5C from a FACP connect signaling circuit of FACP to terminals marked [– INPUT +]. Polarity is shown in alarm condition. Connect the wires on opposite sides of the screw.
6. To trigger the MOM5C using a supervised dry contact connect a 2.2K resistor in series to terminals marked [TRIGGER] for a NC (Normally Closed) trigger input or connect a 2.2K resistor in parallel to terminals marked [TRIGGER] for NO (Normally Open) trigger input *(Fig. 7, pg. 6)*.
7. Connect the auxiliary devices that are to be triggered by the MOM5 to terminals marked [Dry Output]:
   For Normally Open operation connect wires to the terminals marked [NO & C].
   For Normally Closed operation connect wires to the terminals marked [NC & C].
   Note: This relay will energize when the MOM5C is triggered.
8. Connect trouble reporting device to the terminals marked [Power Fail].
   For Normally Open operation connect wires to the terminals marked [NO & C].
   For Normally Closed operation connect wires to the terminals marked [NC & C].
   Note: This relay will switch when power is lost to the MOM5C.

Current Draw:

Input Voltage	Stand-by	Alarm
12VDC	0.024A	0.066A
24VDC	0.026A	0.074A

LED Diagnostic Table:

LED	ON	OFF
Power (Green)	Normal operating condition.	Power failure.
Trigger (Green)	Input is triggered (alarm condition).	MOM5 in stand-by (non-alarm condition).
Outputs (Red)	Output tripped due to a short circuit or overload condition.	Normal operation.

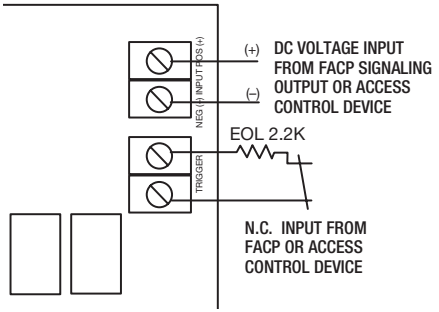
Terminal Identification:

Terminal Legend	Function/Description
– DC INPUT +	12VDC or 24VDC from power supply.
TRIGGER	Dry normally open [NO] or normally closed [NC] supervised (2.2K EOL resistor) input trigger. A short or open circuit will transfer power from terminals marked [POS. (+) DC OUTPUT (STAND-BY)] to terminals marked [POS (+) DC OUTPUT (ALARM)].
– INPUT +	Wet (5-30VDC) input trigger. Applying voltage to these terminals in the polarity shown will transfer power from terminals marked [POS. (+) DC OUTPUT (STAND-BY)] to terminals marked [POS. (+) DC OUTPUT (ALARM)] (e.g. fire alarm control panel indications circuit).
NEG. 1 THROUGH NEG. 5	Supplies constant negative (–) voltage.
POS. (+) DC OUTPUT (ALARM) 1-5	Supplies positive (+) voltage when dry trigger input or fire alarm wet trigger input is applied.
POS. (+) DC OUTPUT (STAND-BY) 6-10	Supplies positive (+) voltage in normal condition. Power is removed when dry trigger input or fire alarm wet trigger input is applied.
NC, C, NO DRY OUTPUT	When the MOM5 is triggered, the terminals marked [C and NO] will open and the terminals marked [C and NC] will close. This output is used to trigger auxiliary devices. (e.g. HVAC Shutdown, Elevator Recall etc.). Contact rating 1A @ 28VDC.
NC, C, NO POWER FAIL	Form “C” contacts used for reporting no voltage is present at [– DC INPUT +] terminals. Under normal conditions terminals marked [NO and C] are open, [NC and C] are closed. A loss of power causes terminals marked [NO and C] to close and [NC and C] to open. Contact rating 1A @ 28VDC.

Typical Application Diagrams:

Fig. 1

MOM5 module shown with wet and/or dry normally closed trigger inputs **(Non-Latching)**:



MOM5 module shown with wet and/or dry normally open trigger inputs **(Non-Latching)**:

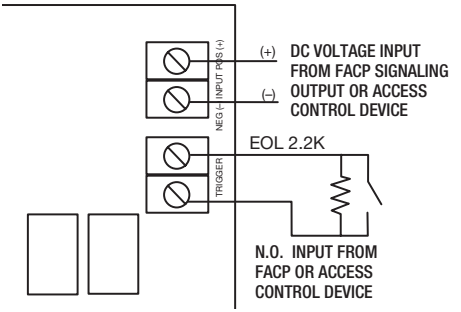


Fig. 2 - Two (2) or more MOM5 modules shown with wet and/or dry normally closed trigger inputs **(Non-Latching)**:

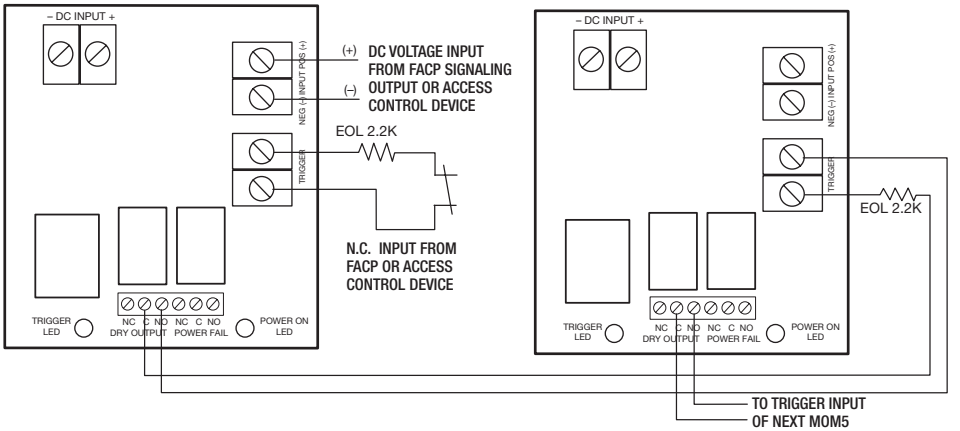
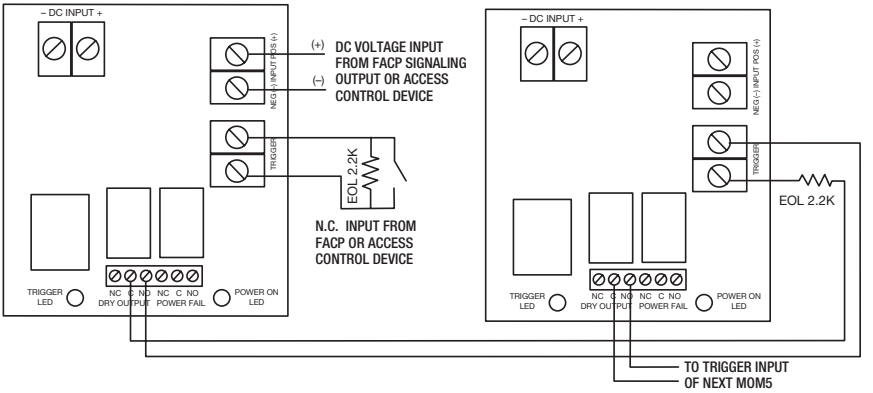


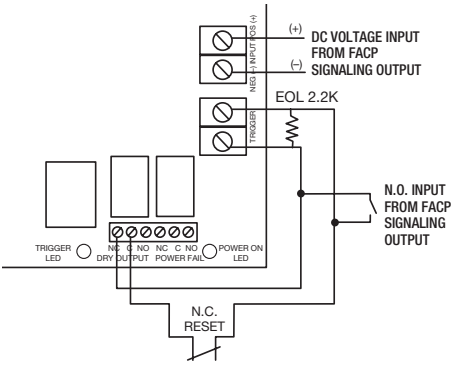
Fig. 3 - Two (2) or more MOM5 modules shown with wet and/or dry normally open trigger inputs **(Non-Latching)**:



Typical Application Diagrams (cont'd)**:**

Fig. 4

MOM5 module shown with with wet and/or dry normally open fire alarm trigger inputs **(Latching with Manual Reset)**:



MOM5 module shown with with wet and/or dry normally closed fire alarm trigger inputs **(Latching with Manual Reset)**:

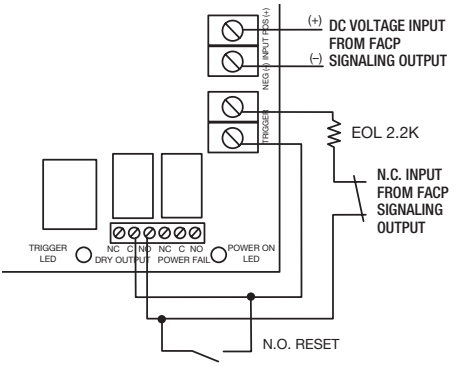


Fig. 5 - Two (2) MOM5 modules shown with wet and/or dry normally closed fire alarm trigger inputs **(Latching with Manual Reset)**:

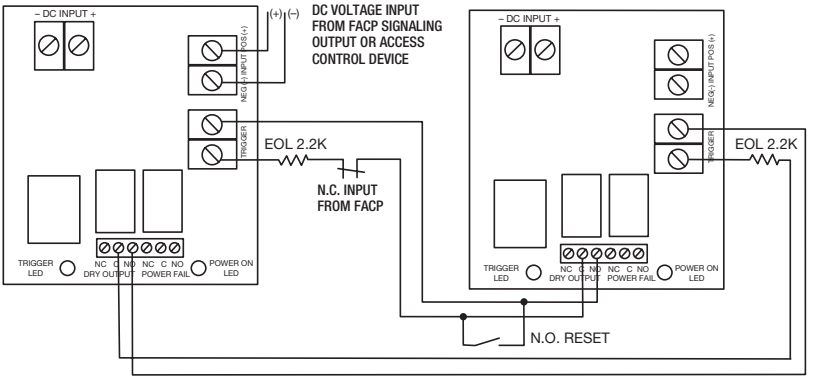


Fig. 6 - Two (2) MOM5 modules shown with wet and/or dry normally open fire alarm trigger inputs **(Latching with Manual Reset)**:

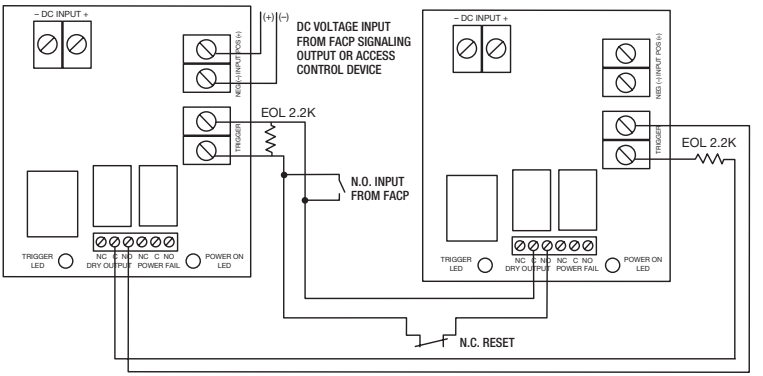
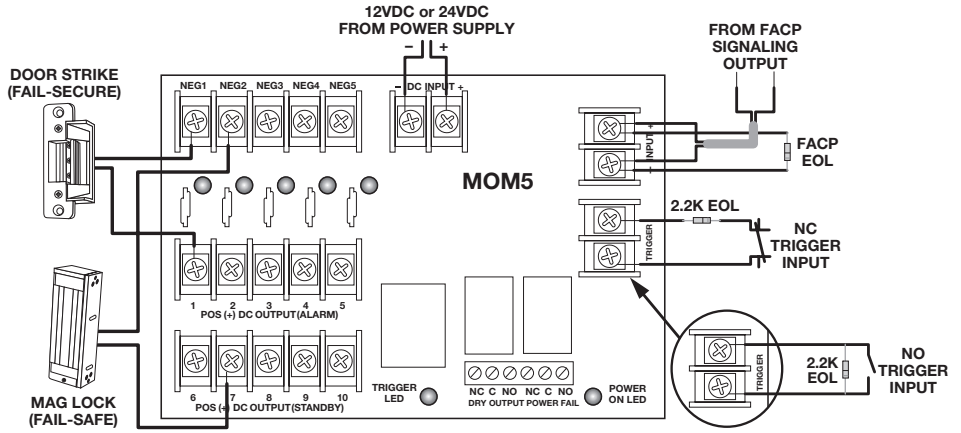
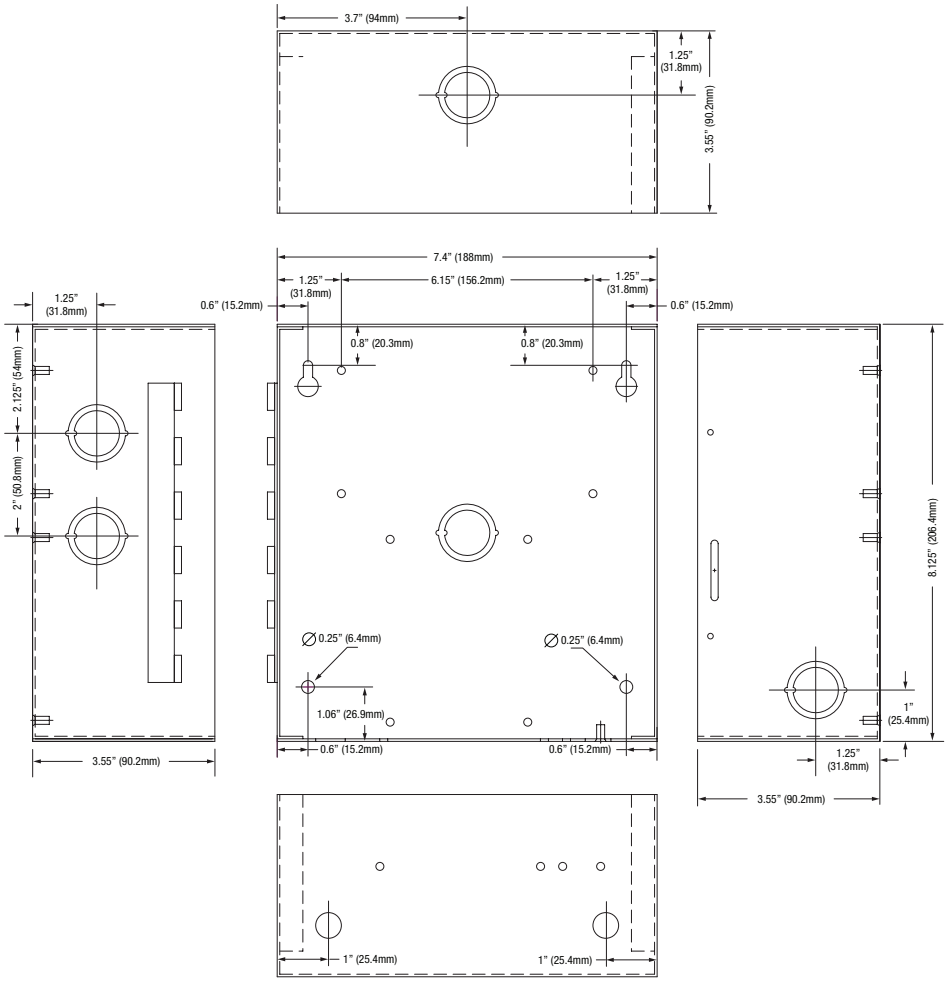


Fig. 7


12VDC or 24VDC
FROM POWER SUPPLY
– +
FROM FACP
SIGNALING
OUTPUT
DOOR STRIKE
(FAIL-SECURE)
NEG1 NEG2 NEG3 NEG4 NEG5
– DC INPUT +
MOM5
INPUT
FACP
EOL
2.2K EOL
TRIGGER
NC
TRIGGER
INPUT
1 2 3 4 5
POS (+) DC OUTPUT(ALARM)
MAG LOCK
(FAIL-SAFE)
6 7 8 9 10
POS (+) DC OUTPUT(STANDBY)
TRIGGER
LED
NC C NO NC C NO
DRY OUTPUT POWER FAIL
POWER
ON LED
TRIGGER
2.2K
EOL
NO
TRIGGER
INPUT

Notes:

Enclosure Dimensions (H x W x D)**:**

8.125" x 7.4" x 3.55" (206.4mm x 188mm x 90.2mm)