

DESCRIPTION:

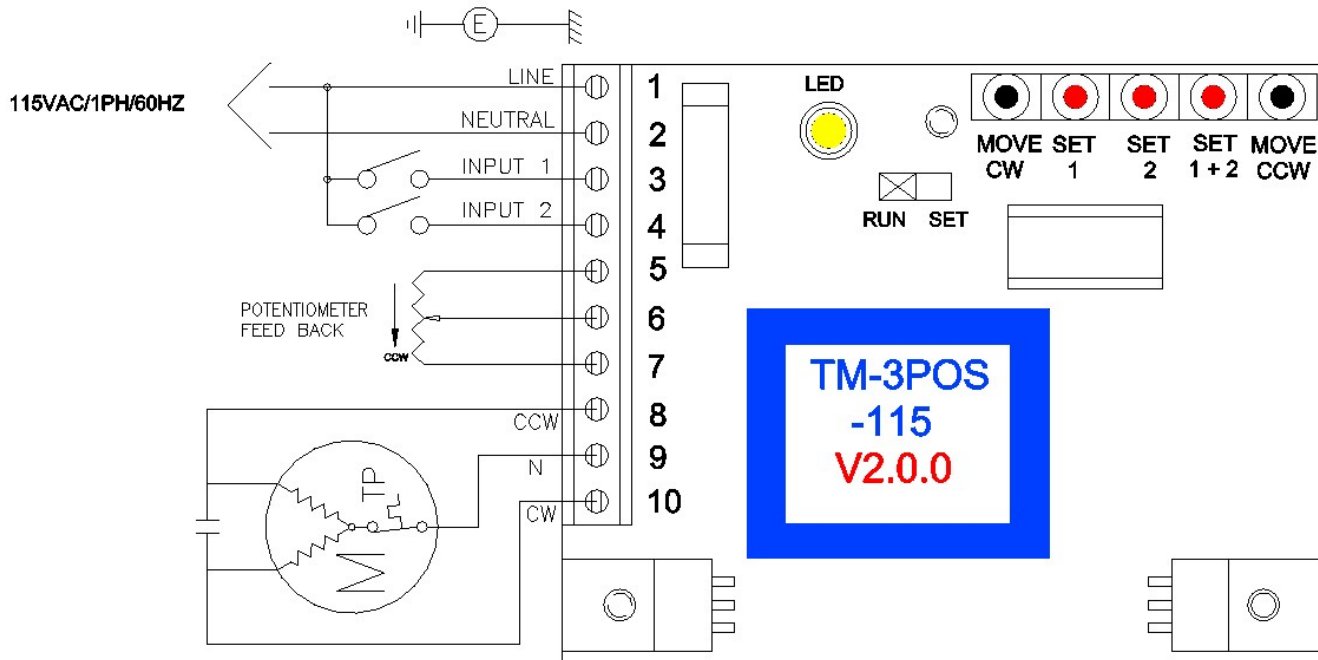
The TM-3POS-115 control card will operate 115VAC electric actuators to three positions using only two control inputs without the need for switches or special cams. The three positions are set by simply rotating actuator to desired position and pressing corresponding button to program location into memory.

SPECIFICATIONS:

Power: 115VAC ± 10%, 50HZ / 60HZ
 Signal Inputs: 115VAC ± 10%, 50HZ / 60HZ
 Fuse: 2.5 Amp / 250VAC Slow blow
 Feedback input: 1000 or 5000Ω potentiometer
 Accuracy: 8 Bit processor (1 in 255)
 Temperature: 0°C to 70°C
 Power Consumption: Less than 2 watts

LAYOUT & WIRING:

BUTTON	FUNCTION
[CW]	Energize motor CW output terminal 10 to drive actuator clockwise
[CCW]	Energize motor CCW output terminal 8 to drive actuator counter-clockwise
[SET 1]	Save position for voltage to Input 1
[SET 2]	Save position for voltage to Input 2
[SET 1 + 2]	Save position for voltage, or no voltage, to Input 1 and Input 2



INSTALLATION:

- The TM-3POS-115 control card should be mounted to a metal bracket to properly dissipate the heat generated by the solid-state outputs.
- A 1000 Ohm or 5000 Ohm potentiometer is used for position feedback and must connect to terminals 5, 6 & 7. The wiper will connect to terminal 6. The other two leads connect to terminal 5 and 7 so when the actuator is rotating CCW, the resistance or voltage is increasing between terminals 5 & 6.
- The motor and capacitor connect to terminals 8, 9 & 10. The neutral from the motor connects to terminal 9 and the lead that drives the motor CCW to terminal 8 and the lead that drive the motor CW to terminal 10.
- The incoming 115VAC power is connected to terminals 1 & 2, with LINE on terminal 1 and NEUTRAL on terminal 2.
- A ground should be attached to a grounding lug inside actuator housing.
- The 115VAC input control signals connect to terminal 3 & 4. Each input should be powered through it's own individual switch or relay contacts.

OPERATION:

The TM-3POS-115 control card can be operated to any of three different positions by providing 115VAC to input terminals 3 and 4. in two different positioning modes.

IN 2 (#4)	IN 1 (#3)	POSITION	DEFAULT
0 V	0 V	3	MID
0 V	115 V	1	CW
115 V	0 V	2	CCW
115 V	115 V	3	MID

CALIBRATION:

- Set jumper JP1 to the S (Set) position and supply power to terminals 1 and 2.
- Move to middle position using [CW] or [CCW] buttons. Adjust the potentiometer to its mid-range. This is indicated when the voltage between terminal 5 & 6 is approximately 2.5VDC, or somewhere between 2.25VDC and 2.75VDC. Tighten the potentiometer gear and cam shaft gear set screws.

Press [SET 1 + 2] button to program this position into memory as the position to move to when Input 1 and Input 2 are supplied 115V.
- Move actuator to clockwise position using [CW] or [CCW] buttons. Press [SET 1] button to program this position into memory. This will be the position the actuator moves to when Input 1 is supplied 115V.
- Move actuator to counter-clockwise position using [CW] or [CCW] buttons. Press [SET 2] button to program this position into memory. This will be the position the actuator moves to when Input 2 is supplied 115V.
- Move the jumper JP1 from the S (SET) position to R (RUN) position. The actuator can now be tested with the inputs to terminal 3 & 4.

NOTE: The actuator can be programmed to any of the three positions for any of the input logic. Just move the actuator to the desired position, and press the button corresponding to the desired input functionality.

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For product specifications go to <http://download.a-tcontrols.com/>

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