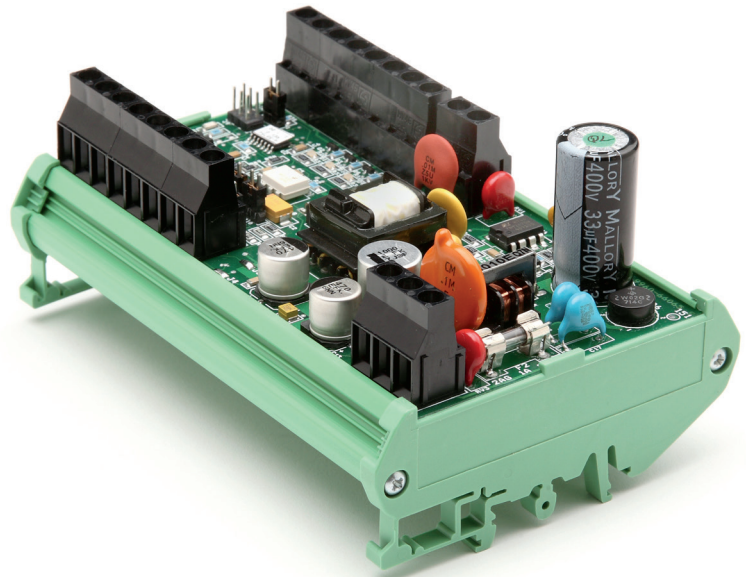


Installation and Operating Instructions

Vari-Watt Power Controller



PK555
0037-75459
October 2018

Vari-Watt Power Controller

General

The Chromalox Vari-Watt Controller accepts an analog control signal input and produces a proportional output signal to drive Solid State Relays such as the Chromalox SSR series. Demand Oriented Transfer (DOT) firing for each SSR provides precise control with resolution to 3 cycles (select 50 or 60 Hz operation).

In a typical application the Vari-watt is used to convert temperature/process control signal (4-20 mA) to a Zero Crossing SSR power control.

When using multiple SSR's the Load Management feature automatically offsets the turn-on signal for each SSR output to limit inrush current.

Manual control provides open loop control of the output from 0 to 100% with input from a 10K Potentiometer.

Auto/Manual Control allows a single pole switch to select between Manual Control or Automatic Control from any of the analog signal inputs.

Features

- Allows Automatic or Manual Control of Heater Loads Using Chromalox SSR Series Solid State Relays
- Demand Oriented Transfer (DOT) Firing for Analog Inputs
- 50 or 60 Hz (Jumper Selectable)
- Load Management Feature for Multiple SSR's
- Analog Inputs
- 4-20 mA
- 0-5 Vdc
- 0-10 Vdc
- 50 or 60 Hz Operation, (Jumper Selectable)
- Open Board Design
- DIN Rail Mounting

Specifications

Instrument power:

- 95 to 250 Vac power, less than 15VA

Operating Environment:

- 32-150°F ambient temperature
- Relative humidity less than 95% non-condensing.

Analog Input types:

- 4-20 mA into 250 Ohm
- 0-5 Vdc into 10K Ohm
- 0-10 Vdc into 20K Ohm
- 10K potentiometer

Outputs (Up to 4 total):

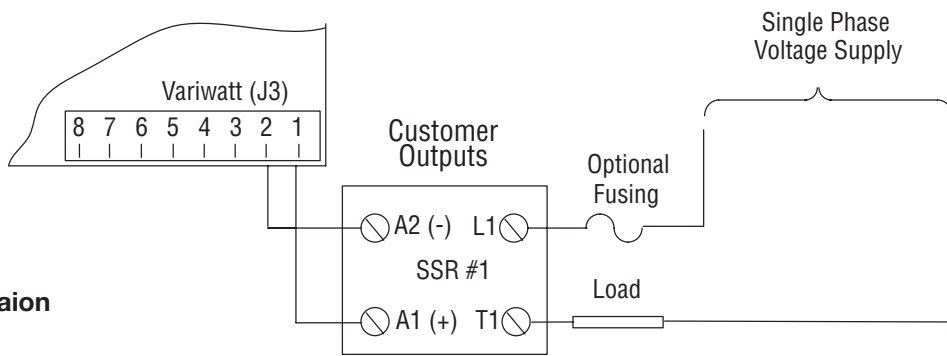
- SSR drive (12 Vdc at 100 mA (total current for outputs))

DOT timing:

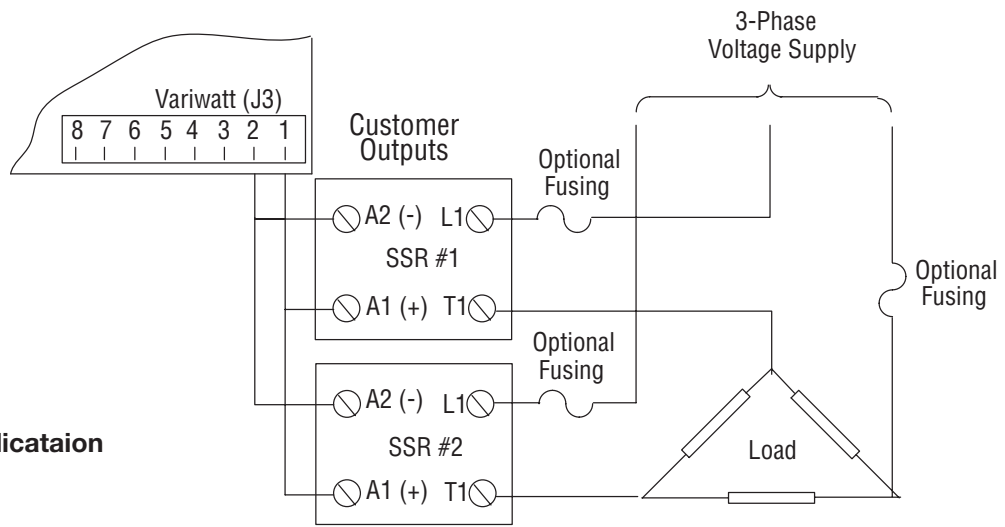
- 3 cycle, 50 or 60 Hz (jumper selectable)

Application Diagrams (Typical)

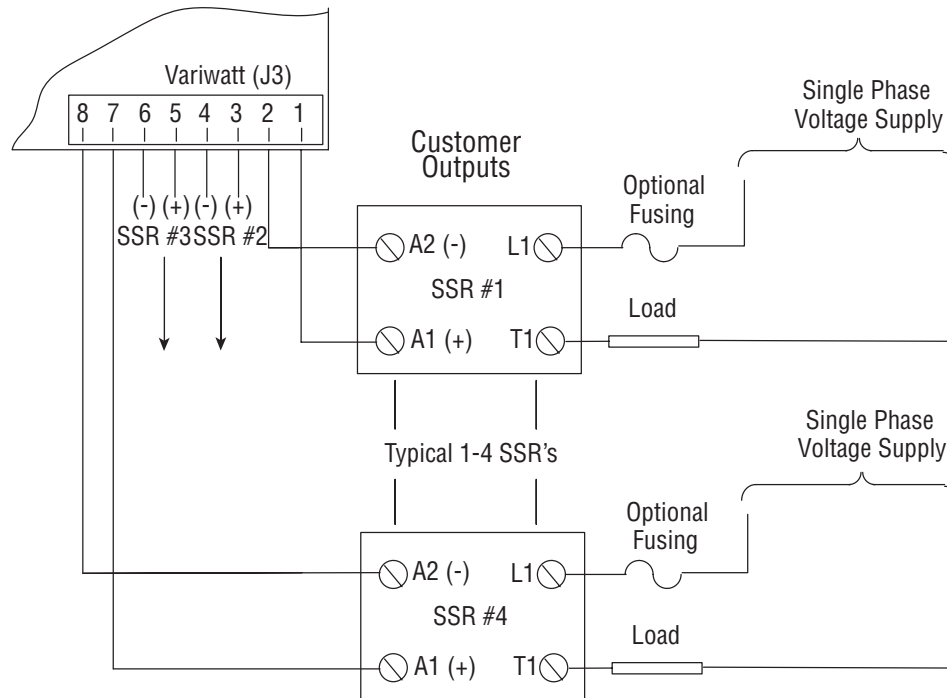
Single Phase Application



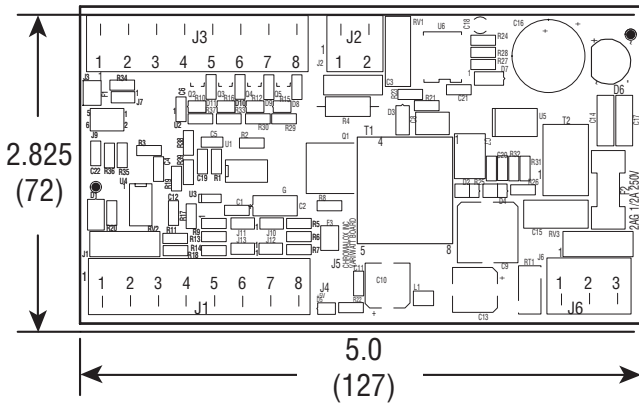
3-Phase Application



Multiple Output Applications Load Management

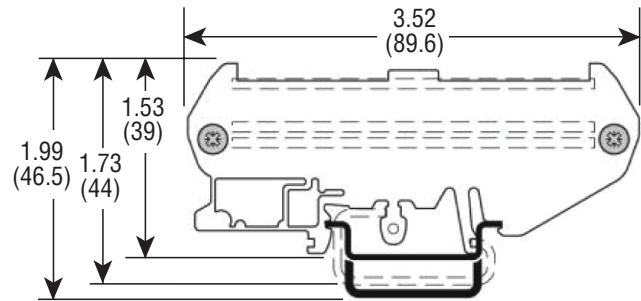


Board Dimensions



End View of DIN Rail Enclosure

- 3.5x5.1" (90x130) Overall Dimensions
- Allow 2" (51) for circuit Board Height Above DIN Rail Enclosure

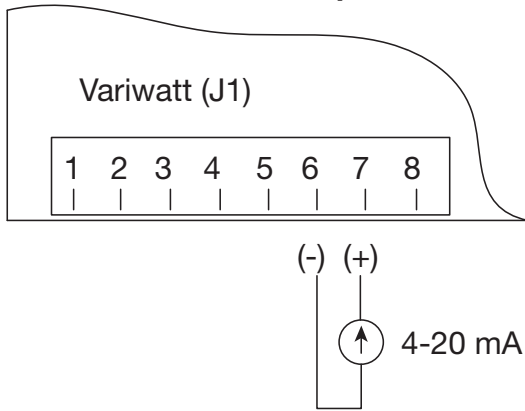


Ordering Information

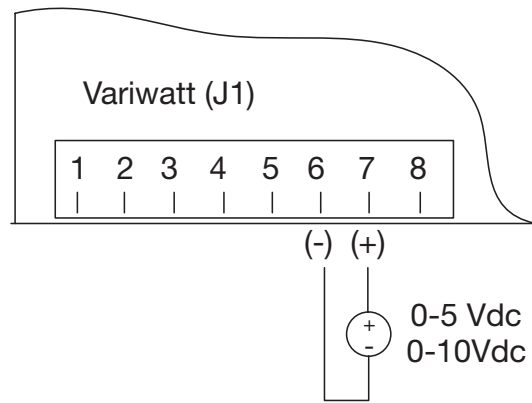
Description	Number	PCN
Vari-Watt Controller	0113-10237	339768
Potionmeter (10K)	0135-27000	313947

Input Connections

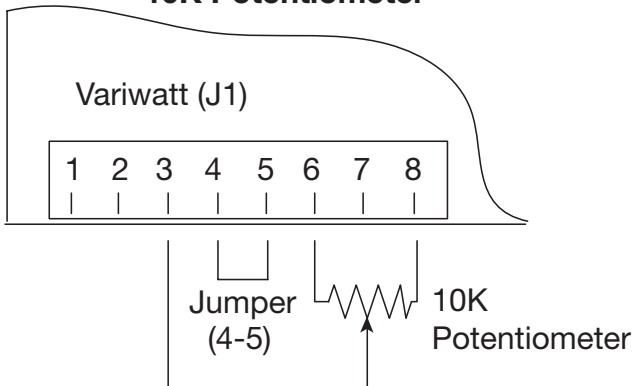
4-20 mAdc Input



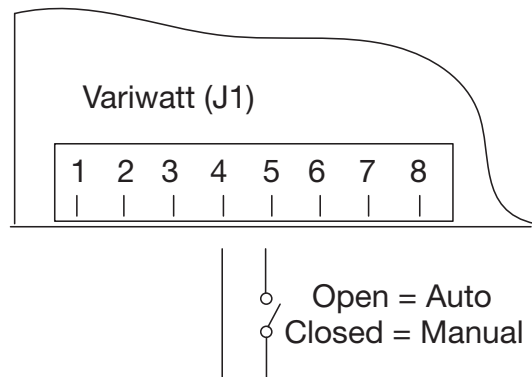
0-5 Vdc, 0-10Vdc Inputs



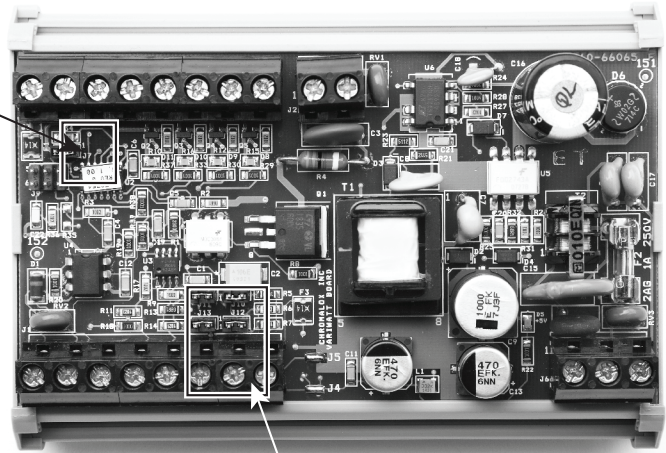
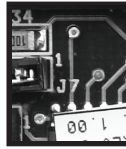
Manual Input 10K Potentiometer



Auto/Manual Selection



See Table
Remove J7 for 50 Hz Operation



Jumper Selection Table

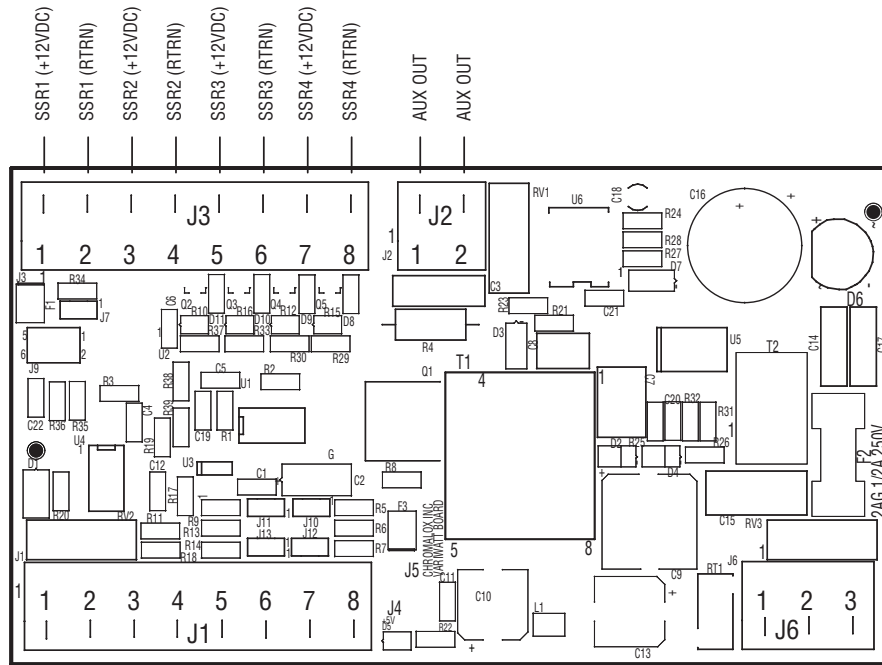
(0 = Remove Jumper, X = Jumper Installed)

Input Type	J10	J11	J12	J13	J7
4 - 20 mA DC	X	X	X	X	N/A
0 - 5 Vdc	0	0	X	0	N/A
0 - 10 Vdc	0	0	0	0	N/A
50 Hz	N/A	N/A	N/A	N/A	0
60 Hz	N/A	N/A	N/A	N/A	X

See Table
Input Jumper Selections
(J10, J11, J12, J13)



CUSTOMER OUTPUTS



CUSTOMER INPUTS

[POT WIPER INPUT]
AUTO / MANUAL CONTROL
AUTO / MANUAL CONTROL
ANALOG INPUT - [OUT TO POT]
ANALOG INPUT +
+5 VDC [OUT TO POT]

AC POWER
(90-250Vac, 50 or 60 Hz Selectable)

Limited Warranty:

Please refer to the Chromalox limited warranty applicable to this product at
<http://www.chromalox.com/customer-service/policies/termsofsale.aspx>.

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