



HORSEPOWER RATED

# HIGH CURRENT TIMING RELAY

## LOW COST OPEN CONSTRUCTION

### 10 AMPERE CONTACTS 1/3HP RATED

#### Series 684B - ONE SHOT

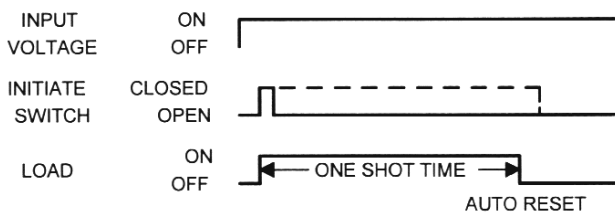
#### CMOS DIGITAL CIRCUITRY

- Environment Protected
- Tamper Proof Relay
- No False Operate
- Enclosed Relay SPDT or DPDT
- Small Size – 3.625" x 2.125" x 1 1/16"
- Lightweight – approximately 2.5 oz.
- Rugged 4 hole mounting
- Transient Protected to 6000V

To operate input voltage is applied continuously. A normally open initiate switch closure (either momentary or maintained) causes the load contact to close, energizing the load and start timing. At the end of the preset delay time period the load is turned OFF. A new cycle of operation can then be started immediately upon re-closure of the initiate switch. Should the initiate switch be re-closed during timing there is no affect to the preset delay period. Reset is automatic at the end of the timing period as long as the initiate switch is open.

Control the timing of high power electric heaters, HP rated motors, lamps, transformers and other high current loads rated less than 10 amps Resistive. CMOS digital circuitry is combined with a high current output relay Rated at 10 amps. P/C board and components are covered with a moisture resistant coating. Wiring terminals are ¼ quick connect. Available in all standard voltages and frequencies. Fixed or adjustable timing from .1 seconds to 24 hours.

### TIMING DIAGRAM



### SPECIFICATIONS

1. Repeat Accuracy:  $\pm 0.25\%$
2. Combined Effect of Temperature and Voltage upon Repeat Accuracy:  $\pm 2\%$
3. Reset Time: 150 ms.
4. Operating Voltage Tolerance:  $\pm 20\%$
5. Load Current: 10 Amps Resistive at 120/240VAC or 28VDC  
1/3HP@120VACor240VAC
6. Dielectric Strength: 1500 VRMS
7. Insulation Resistance: 100 Megohms Min.
8. Input Transient Protection: 3000V 120V UNITS, 6000V 240V units
9. Temperature Ambients: Operating -40°C to +70°C Storage -55°C to + 85°C
10. Humidity-Operating: 95% Relative
11. Linearity(Option A or D ):  $\pm 5\%$  Minimum from 10% to 90% of range
12. Timing Tolerance:  $\pm 9\%$  + Tolerance of Rt Std.,  $\pm 5\%$  Special (Fixed)

### HOW TO ORDER 684(N) – (T) (V) (P)

SERIES	(T) = TIME RANGE	(V)=VOLTAGE	(P) = OPTIONS
<b>684B</b> SPDT  <b>684BB</b> DPDT	P = 0.1 - 5 SEC. 1 = 0.1 - 10 SEC. L = 0.2 - 20 SEC. J = 0.3 - 30 SEC. M = 0.6 - 60 SEC. 2 = 1 - 100 SEC. K = 1.2 - 120 SEC. F = 2 - 180 SEC. E = 3 - 300 SEC. 3 = 10 - 1000 SEC. 4 = 0.1 - 10 MIN. G = 0.3 - 30 MIN. H = 0.6 - 60 MIN. 5 = 1 - 100 MIN. V = 3 - 300 MIN. 6 = 10 - 1000 MIN. D = 1 - 24 HRS.	1 = 12VDC 2 = 24VDC 3 = 48VDC 4 = 24VAC 5 = 120VAC 6 = 240VAC 7 = 110VDC	O - CUSTOMER SUPPLIES OWN POTENTIOMETER OR RESISTOR A - POTENTIOMETER SUPPLIED AS A LOOSE PIECE *C - FACTORY FIXED W - POTENTIOMETER WITH WHEEL ON BOARD
	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <i>* For Fixed Time Specify The Value In Seconds, Minutes, Or Hours</i> </div>		
			MADE IN USA

**EXAMPLE P/N: 684B-25W** This is a SPDT ONE SHOT 10A Rated Relay Output Solid State Timer with an adjustable 1 – 100 second DELAY and an INPUT VOLTAGE of 120 VAC. The time adjust potentiometer with wheel is on the P/C board.

### AMERICAN CONTROL PRODUCTS

A DIV. OF PRECISION TIMER CO., INC.  
 47 WESTBROOK INDUSTRIAL PARK ROAD  
 WESTBROOK, CT. 06498

PHONE: (860)399-6253  
 EMAIL: info@precisiontimer.com

FAX: (860)399-5619  
 Web Site: precisiontimer.com

### TECHNICAL BULLETIN

### OPEN SOLID STATE TIMER

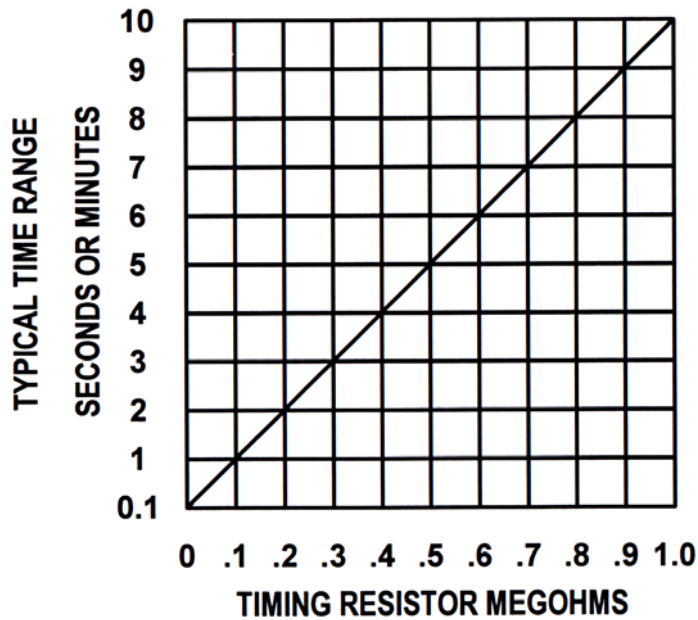
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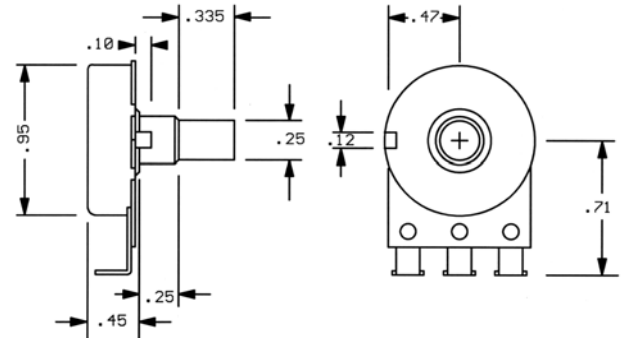
# 684B

REV

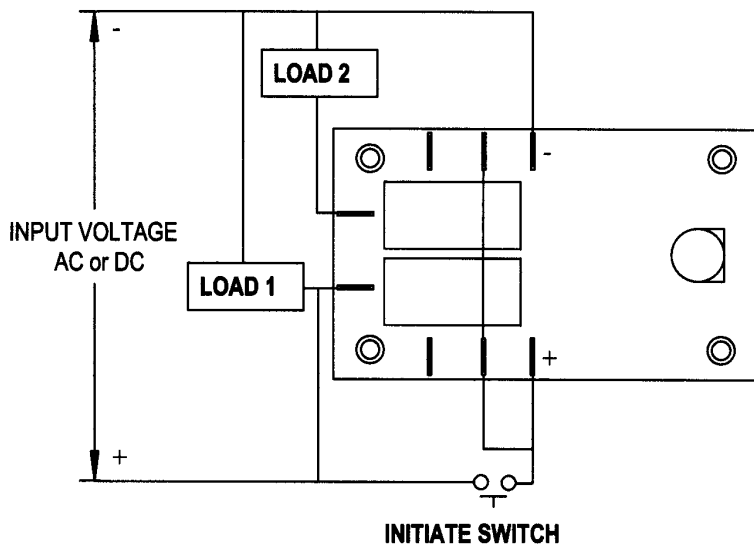
## TYPICAL CALIBRATION RESISTANCE VS TIME



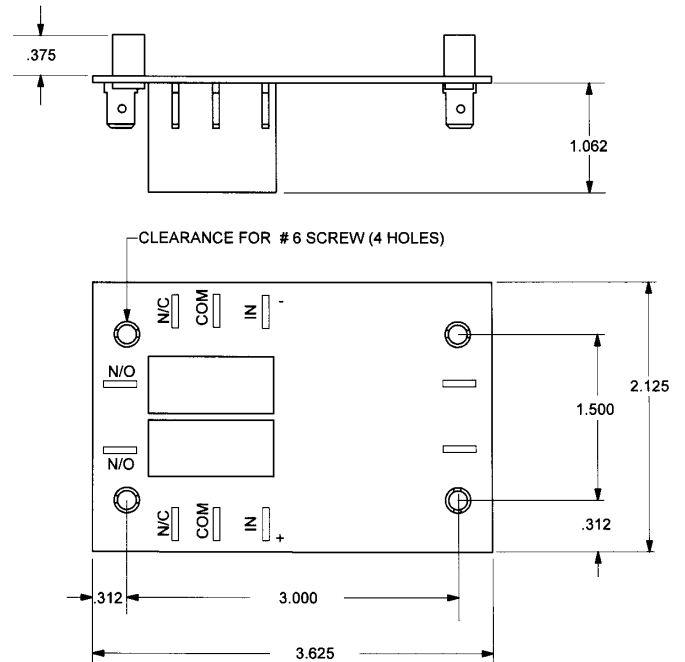
ACCESSORIES AVAILABLE FROM STOCK  
CONTROL POTENTIOMETERS (OPTION A)  
ORDER P/N PM-1M 1 MEGOHM  $\pm$  20%



## TYPICAL WIRING



## OUTLINE DRAWING



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### TECHNICAL BULLETIN

### SOLID STATE TIMING MODULE

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**684B**

REV