

**HORSEPOWER RATED**

# HIGH CURRENT TIMING RELAY

**COOL DOWN TIMER      LOW COST OPEN BOARD CONSTRUCTION**  
**10 AMPERE RATING 1/3 HP**  
**Series 682B – OFF DELAY**

**SOLID STATE**

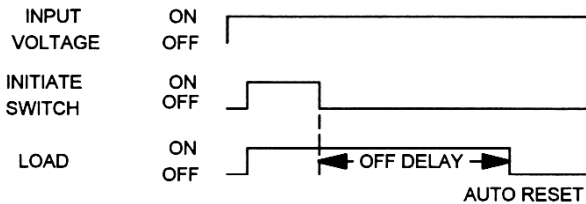
**CMOS DIGITAL CIRCUITRY**

- Environment Protected
- Tamper Proof Relay
- No False Operate
- Enclosed Relay SPDT OR DPDT

- Small Size – 2.437" x 3.962" x 1.5"
- 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 causes the load contact(s) to close, energizing the load. Timing will start when the initiate switch opens. At the end of the preset delay time period the load is turned OFF. A new cycle of operation can then be started via the initiate switch re-closure. Should the initiate switch be re-closed during the preset time delay period, timing will stop, but the load will remain energized. When the initiate switch is re-opened, the preset delay will re-triggered. When the delay time has reached time out, the load will be de-energized, and the timer is reset. This timer is commonly referred to as the "COOL DOWN TIMER". Control the timing of high power electric heaters, FHP motors, lamps, transformers and other high current loads rated less than 10 amps Resistive. CMOS digital circuitry is combined with high current output relay contacts. 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: ± 0.25%
2. Combined Effect of Temperature and Voltage upon Repeat Accuracy: ±2% of Setting
3. Reset Time: 150 ms.
4. Operating Voltage Tolerance: ± 20%
5. Load Current: 10 Amps Resistive at 120/240VAC or 28VDC, 1/3 HP@ 120/240VAC
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 ): ±5% Minimum from 10% to 90% of range
12. Timing Tolerance: ±9% + Tolerance of Rt Std., ±5% Special (Fixed)

### HOW TO ORDER 682(N) – (T) (V) (P)

SERIES	(T) = TIME RANGE	(V)=VOLTAGE	(P) = OPTIONS
<b>682B SPDT</b>	P = 0.1 - 5 SEC.	1 = 12VDC	O - CUSTOMER SUPPLIES OWN POTENTIOMETER OR RESISTOR A - POTENTIOMETER SUPPLIED AS LOOSE PART *C - FACTORY FIXED R - POTENTIOMETER WITH THRU SHAFT S - POTENTIOMETER WITH SCREWDRIVER SLOT
	1 = 0.1 - 10 SEC.	2 = 24VDC	
	L = 0.2 - 20 SEC.	3 = 48VDC	
	J = 0.3 - 30 SEC.	4 = 24VAC	
	M = 0.6 - 60 SEC.	5 = 120VAC	
	2 = 1 - 100 SEC.	6 = 240VAC	
	K = 1.2 - 120 SEC.	7 = 110VDC	
	F = 2 - 180 SEC.		
	E = 3 - 300 SEC.		
	3 = 10 - 1000 SEC.		
<b>682BB DPDT</b>	4 = 0.1 - 10 MIN.		<div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 80%;"> <i>* For Fixed Time Specify The Value In Seconds, Minutes, Or Hours</i> </div>
	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.		

**MADE IN USA**

EXAMPLE P/N: 682BB-32C/240SEC This is a DPDT, OFF DELAY 10A Rated Timer with a fixed 240 second delay and an INPUT VOLTAGE of 24 VDC. The delay time is internally fixed.

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

PHONE: (860)399-6253  
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### TECHNICAL BULLETIN

### SOLID STATE TIMING MODULE

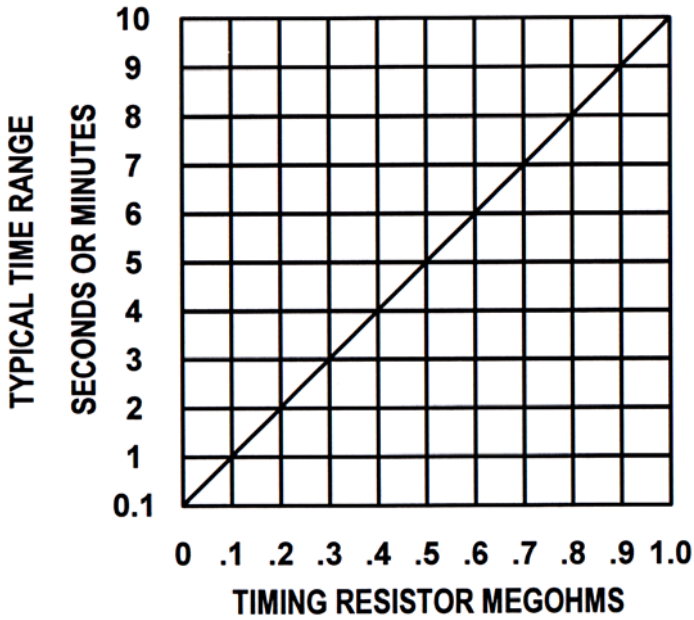
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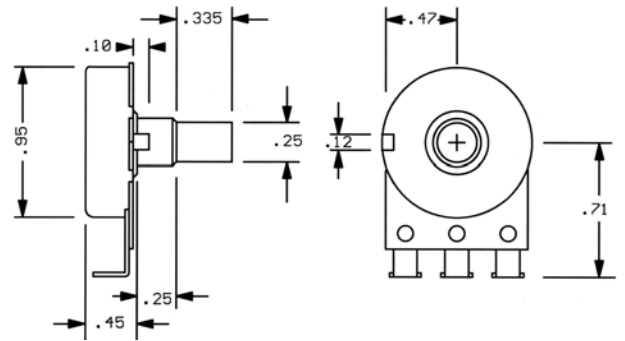
**682B**

REV

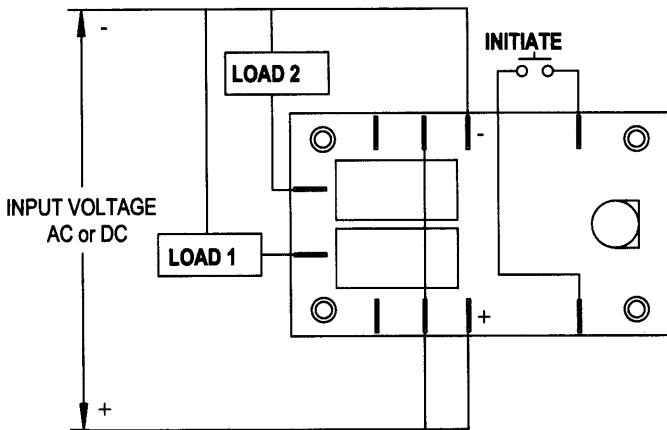
**TYPICAL CALIBRATION RESISTANCE VS TIME**



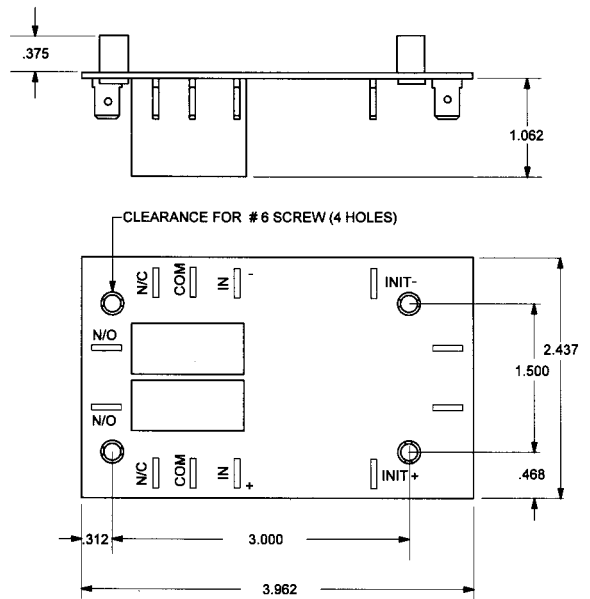
**ACCESSORIES AVAILABLE FROM STOCK**  
**CONTROL POTENTIOMETERS (OPTION A)**  
**ORDER P/N PM-1M 1 MEGOHM ± 20%**



**TYPICAL WIRING**



**OUTLINE DRAWING**



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