



HORSEPOWER RATED

# HIGH CURRENT TIMING RELAY

## LOW COST OPEN CONSTRUCTION

### 10 AMPERE CONTACTS 1/3HP RATED

#### Series 681B - ON DELAY

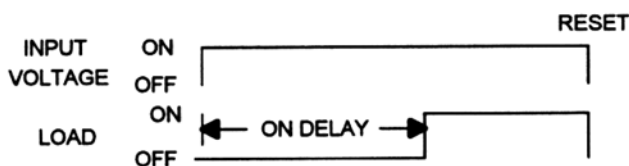
##### CMOS DIGITAL CIRCUITRY

- 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

Input power when applied starts the ON delay timing. When the preset time delay has run out, the on board relay is energized and the load is turned ON. The load will remain ON until the input power is removed. Power must be applied during timing and after time out, or as long as necessary to keep the load energized. Momentary loss of power during timing will not cause momentary actuation of the load. Remove the input voltage to reset.

Control the timing of high power electric heaters, FHP rated 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:  $\pm 0.25\%$
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 681(N) – (T) (V) (P)

SERIES	(T) = TIME RANGE	(V)=VOLTAGE	(P) = OPTIONS
<b>681B SPDT</b>  <b>681BB DPDT</b>	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; text-align: center; margin: 10px auto; width: 80%;"> <i>* For Fixed Time Specify The Value In Seconds, Minutes, Or Hours</i> </div> <p style="text-align: right; margin-top: 20px;"><b>MADE IN USA</b></p>

**EXAMPLE P/N: 681BB-34W** This is a DPDT ON DELAY 10A Rated Relay Output Solid State Timer with an adjustable 10 – 1000 second DELAY and an INPUT VOLTAGE of 24 VAC. The time adjust potentiometer with wheel is on the P/C board.

American Control Products / Precision Timer  
 a division of Prime Technology  
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 North Branford, CT 06471  
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### TECHNICAL BULLETIN

### OPEN SOLID STATE TIMER

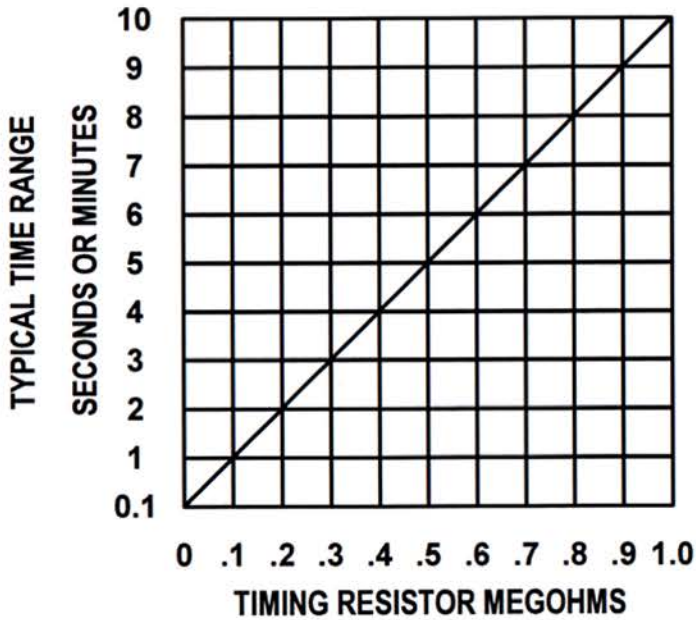
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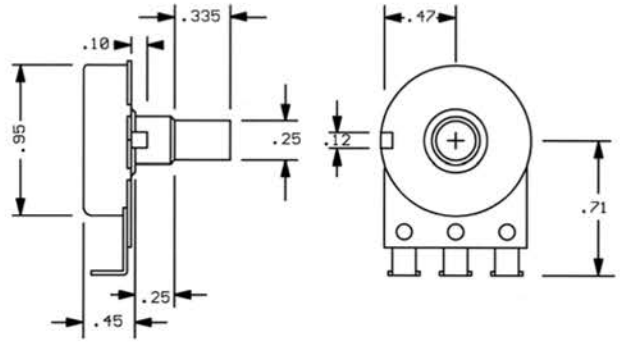
# 681B

REV

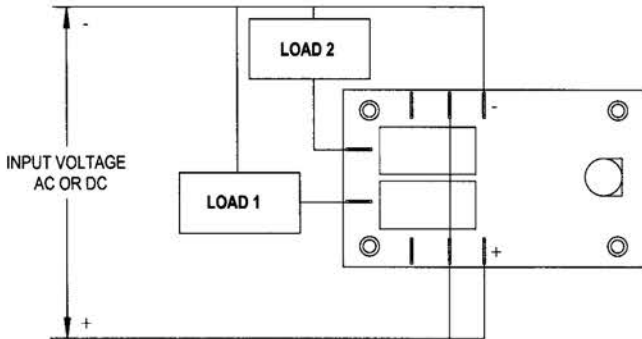
**TYPICAL CALIBRATION RESISTANCE VS TIME**



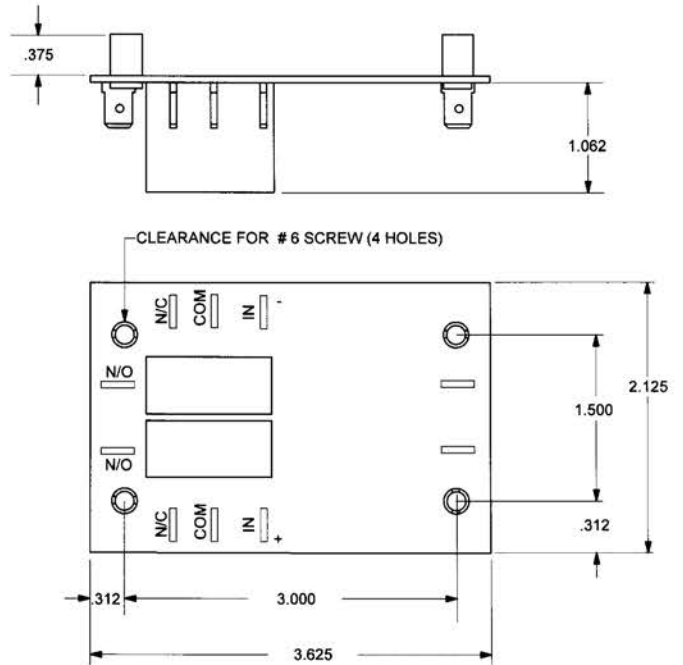
**ACCESSORIES AVAILABLE FROM STOCK**  
**CONTROL POTENTIOMETERS (OPTION A)**  
**ORDER P/N PM-1M 1 MEGOHM ± 20%**



**TYPICAL WIRING**



**OUTLINE DRAWING**



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**TECHNICAL BULLETIN**

**SOLID STATE TIMING MODULE**

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**681B**

REV