



HORSEPOWER RATED

HIGH CURRENT TIMING RELAY

LOW COST OPEN CONSTRUCTION

10 AMPERE CONTACTS 1/3HP RATED

Series 685B - RECYCLE/FLASHER

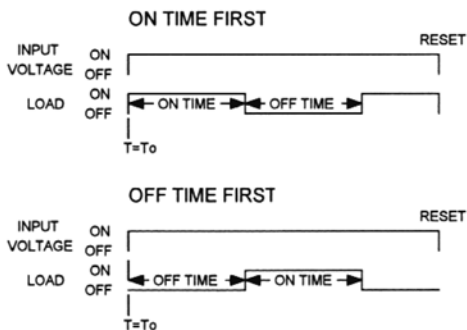
CMOS DIGITAL CIRCUITRY

- 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

Application of power simultaneously starts timing of the preset interval and turns the load ON. The load stays On for the preset On time then turns OFF for an equal length of time. The ON/OFF cycling of the load continues until power is turned OFF. Cycling can be specified as OFF/ON see below. Removal or interruption of power at any time during the cycle will cause the timer to reset.

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 high current output relay contacts rated at 10 amps. P/C board and components are covered with 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)

685(N) - (T) (V) (P)

HOW TO ORDER 685(N) R (T) (V) (P)

SERIES	(T) = TIME RANGE	(V)=VOLTAGE	(P) = OPTIONS
685B SPDT ON FIRST	P = 0.1 - 5 SEC. 1 = 0.1 - 10 SEC. L = 0.2 - 20 SEC. J = 0.3 - 30 SEC.	1 = 12VDC 2 = 24VDC 3 = 48VDC 4 = 24VAC	O - CUSTOMER SUPPLIES OWN POTENTIOMETER OR RESISTOR A - POTENTIOMETER SUPPLIED AS A LOOSE PIECE *C - FACTORY FIXED W - POTENTIOMETER WITH WHEEL ON BOARD
685BR SPDT OFF FIRST	M = 0.6 - 60 SEC. 2 = 1 - 100 SEC. K = 1.2 - 120 SEC. F = 2 - 180 SEC. E = 3 - 300 SEC.	5 = 120VAC 6 = 240VAC 7 = 110VDC	
685BB DPDT ON FIRST	3 = 10 - 1000 SEC. 4 = 0.1 - 10 MIN. G = 0.3 - 30 MIN.		
685BBR DPDT OFF FIRST	H = 0.6 - 60 MIN. 5 = 1 - 100 MIN. V = 3 - 300 MIN. 6 = 10 - 1000 MIN. D = 1 - 24 HRS.		

** For Fixed Time Specify The Value In Seconds, Minutes, Or Hours*

MADE IN USA

EXAMPLE P/N: 685B-15C/1S This is a SPDT RECYCLE/FLASHER 10A Rated Relay Output Solid State Timer with a fixed 1 second ON and OFF time (equivalent to 30 FPM) and an INPUT VOLTAGE of 120 VAC. The time is factory fixed on board.

American Control Products / Precision Timer
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TECHNICAL BULLETIN

OPEN SOLID STATE TIMER

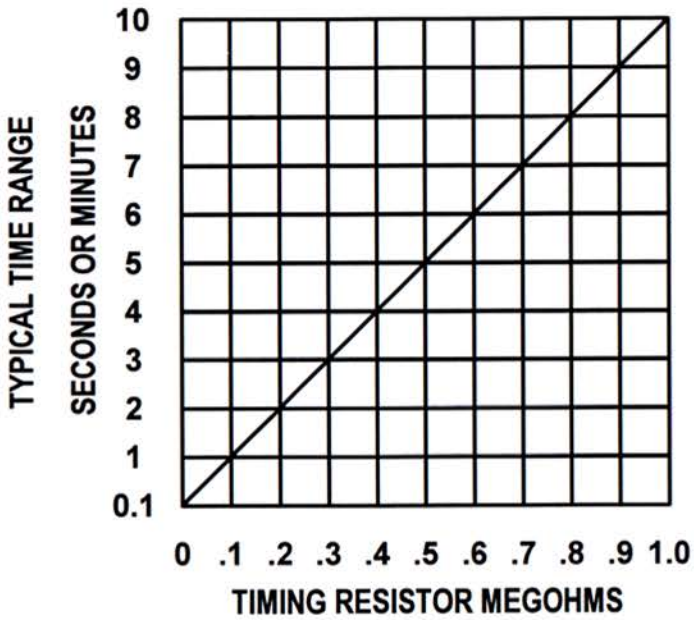
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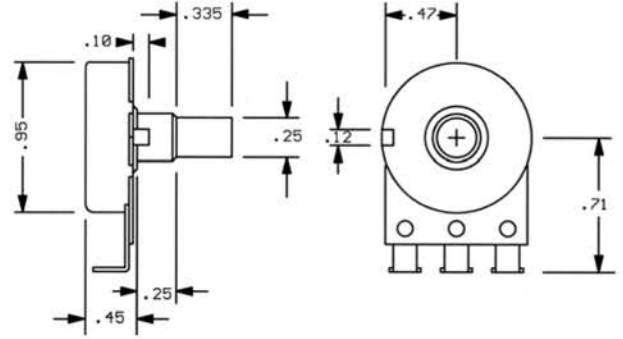
685B

REV

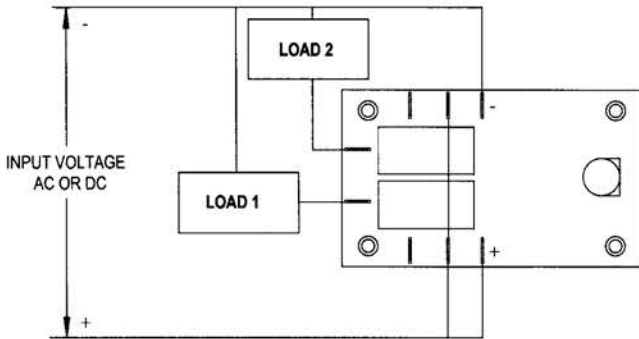
TYPICAL CALIBRATION RESISTANCE VS TIME



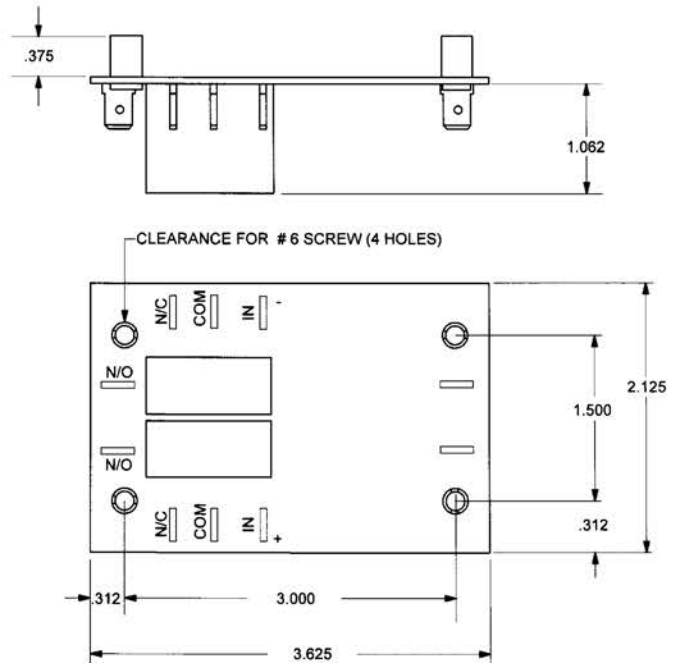
ACCESSORIES AVAILABLE FROM STOCK
CONTROL POTENTIOMETERS (OPTION A)
ORDER P/N PM-1M 1 MEGOHM ± 20%



TYPICAL WIRING



OUTLINE DRAWING



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SOLID STATE TIMING MODULE

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685B

REV