TIMING MODULE

FULLY SOLID STATE ENCAPSULATED **E75633 LR46938**

½ AMPERE LOAD RATING

Series 6093 - DUAL OUTPUT SEQUENTIAL RESET

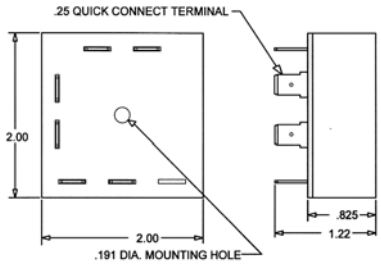
CMOS DIGITAL CIRCUITRY

- **Life Expectancy –unlimited**
- **Environment Protected**
- **Tamper Proof**
- **No False Operate**
- **Small Size – 2"x 2" x 53/64"**
- **Lightweight – approximately 2.5 oz.**
- **Rugged**

Application of power simultaneously initiates timing and turns LOAD 1 ON. This load remains On for the preset T1 ON time period after which it turns OFF for the preset TA off time period. When the TA time has elapsed the LOAD 2 turns On and immediately starts ON time period T2. After the T2 time has elapsed the load turns OFF for the preset TB off time period. The timer stops and awaits a power down to cause a reset. Removal of power at any point in the cycle will cause reset to T = To. The unit is available with the OFF time first, see the TIMING DIAGRAM and the table below.

Control the timing of valves, SFHP motors, lamps, relays, magnetic line starters, and actuators rated less than ½ ampere (5 amps inrush). CMOS digital circuitry, with solid state output switching. P/C boards and internal components are encapsulated in a flame retardant molded housing, fitted with quick connect wiring terminals. Available in all standard voltages and frequencies. Fixed or adjustable timing from .1 seconds to 24 hours.

OUTLINE DRAWING



SPECIFICATIONS

1. **Repeat Accuracy: ± 0.1% or 16 ms. Whichever is greater**
2. **Combined Effect of Temperature and Voltage upon Repeat Accuracy: 1%**
3. **Reset Time: 150 ms.**
4. **Operating Voltage Tolerance: ± 20%**
5. **Load Current: Steady State – 15 ma. Min., 1 Ampere Max., 10 A Inrush**
6. **Voltage Drop: 1.5V Typical at 1 Ampere**
7. **Leakage Current: 5 ma.**
8. **Dielectric Strength: 1500 VRMS**
9. **Insulation Resistance: 100 Megohms Min.**
10. **Input Transient Protection: 3000V 120V UNITS, 6000V 240V units**
11. **Temperature Ambients: Operating -40°C to +70°C, Storage -55°C to +70°C**
12. **Humidity-Operating: 95% Relative**
13. **Linearity(Option A or D): ±5% Minimum from 10% to 90% of range**
14. **Timing Tolerance: ±9% + Tolerance of Rt Std., ±5% Special (Fixed)**

HOW TO ORDER

6093 – (T1) (TA) (TB) (V) / (P)

6093R (T1) (TA) (TB) (V) / (P)

SEQUENCE A: TA + TB ≤ 8T1

SERIES	(T1) = ON TIME	(TA) = OFF TIME	(TB) = OFF TIME
6093 LOAD 1 ON FIRST **6093R** LOAD 1 OFF FIRST	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 = O.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.	A = 0 B = T1 C = 2T1 D = 3T1 E = 4T1 F = 5T1 G = 6T1 H = 7T1 J = 8T1	A = 0 B = T1 C = 2T1 D = 3T1 E = 4T1 F = 5T1 G = 6T1 H = 7T1 J = 8T1

SEQUENCE B: TA + TB ≤ T1

(T1) = ON TIME	(TA) = OFF TIME	(TB) = OFF TIME
P = Not Available. 1 = Not Available 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 = O.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.	K = 0 L = 1/8T1 M = 1/4T1 N = 3/8T1 P = 1/2T1 Q = 5/8T1 R = 3/4T1 S = 7/8T1 J = T1	K = 0 L = 1/8T1 M = 1/4T1 N = 3/8T1 P = 1/2T1 Q = 5/8T1 R = 3/4T1 S = 7/8T1 J = T1

(V)=VOLTAGE

- 1 = 12VDC
- 2 = 24VDC
- 3 = 48VDC
- 4 = 24VAC
- 5 = 120VAC
- 6 = 240VAC

OPTIONS (P1) = ON TIME, (P2) = OFF TIME

- O - CUSTOMER SUPPLIES OWN POTENTIOMETER OR RESISTOR
- A - POTENTIOMETER SUPPLIED AS LOOSE PART
- *B - EXTERNALLY INSTALLED RESISTOR
- *C - FACTORY FIXED INTERNAL
- D - TRIMMER POTENTIOMETER INSTALLED ON TERMINALS
- R - INTERNAL POTENTIOMETER WITH THRU SHAFT
- S – INTERNAL POTENTIOMETER WITH SCREWDRIVER SLOT

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

EXAMPLE: P/N 6093-4CG5/O is a DUAL OUTPUT SEQUENTIAL RESET timer with an ON time T1 of .1-10 minute adjustable, followed by an OFF time TA of 2T1. The T2 time = T1 time and is followed by a6T1 OFF time. The input voltage is 120VAC. The customer supplies the timing resistor or potentiometer.

OPERATIONAL CONDITIONS
T1 IS ALWAYS EQUAL TO T2

SEQUENCE A	SEQUENCE B
0 < TA < 8T1 TA + TB < 8T1 INCREMENT T1	0 < TA < T1 TA + TB <T1 INCREMENT 1/8T1

MADE IN USA

AMERICAN CONTROL PRODUCTS
A DIV. OF PRECISION TIMER CO., INC.
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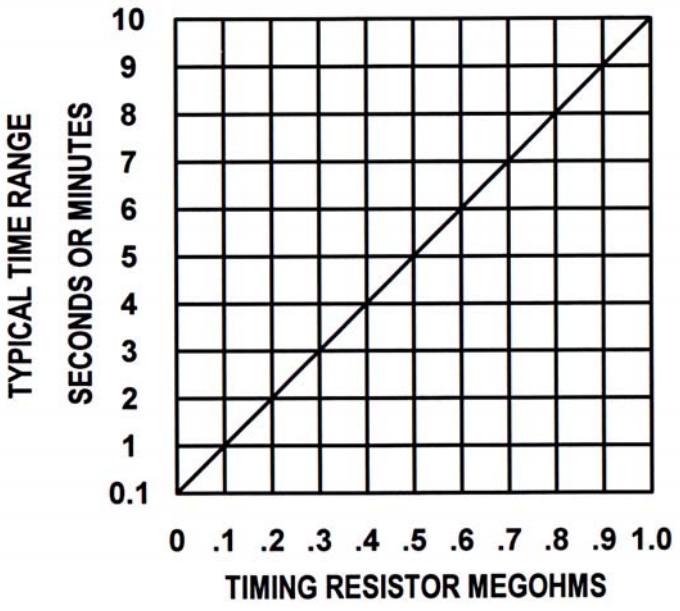
WESTBROOK, CT. 06498
PHONE: (860)399-6253 **FAX:(860)399-5619**
EMAIL:info@precisiontimer.com **Web Site: precisiontimer.com**

TECHNICAL BULLETIN

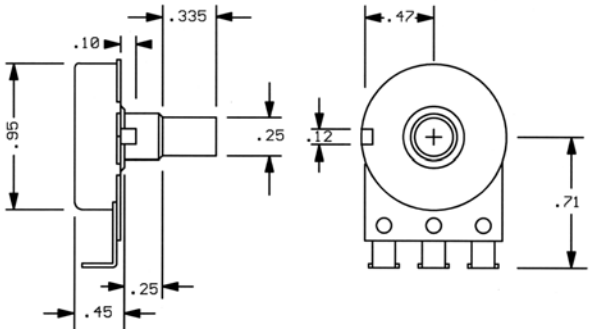
SOLID STATE TIMING MODULE

CALIBRATION RESISTANCE VS TIME

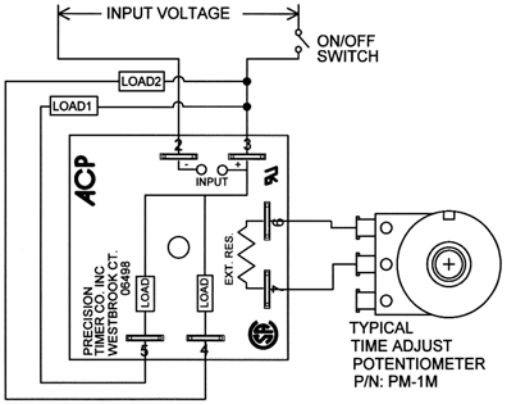


ACCESSORIES – AVAILABLE FROM STOCK

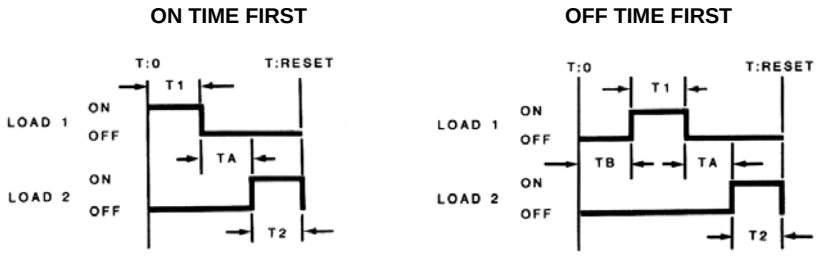
ORDER P/N: **PM – 1M 1 MEGOHM ± 20%**
PM – 100K 100 KOHM ± 20%

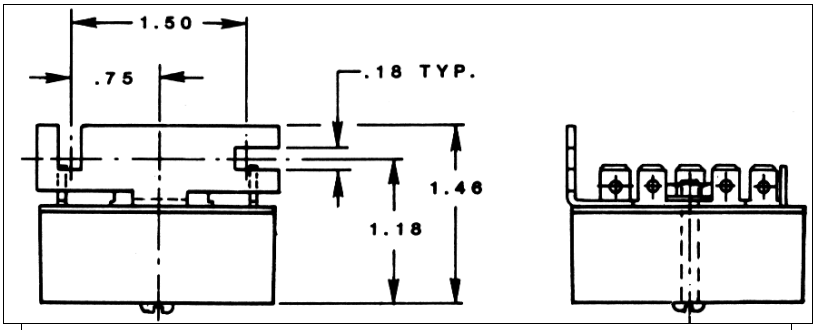


TYPICAL WIRING



TIMING DIAGRAM





Order bracket mount model as: 6093BM – (T) (V) / (P)

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