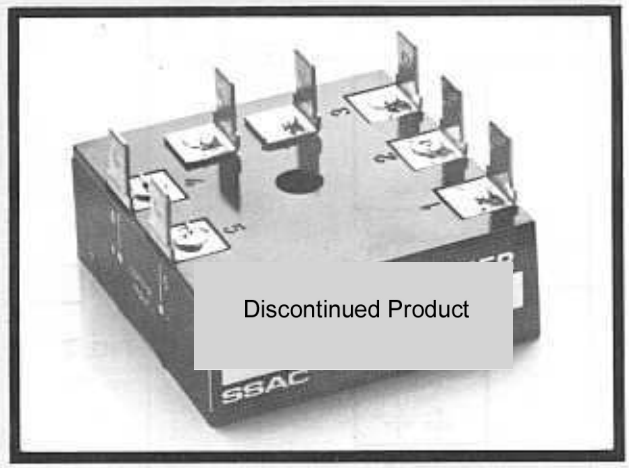
POWER

SOLID STATE TIMER

THB Series
(Delay On Break)

- ☐ **High Current All Solid State, up to 20 Amperes Steady State with 200 Amperes Inrush**
- ☐ **± 2% Accuracy**
- ☐ **Encapsulated to Protect Against Shock, Vibration and Humidity**
- ☐ **Zero Voltage Switching**
- ☐ **Delays from 0.1 to 600 Seconds**



DESCRIPTION

MINIMUM ORDER QUANTITY REQUIRED
CONSULT FACTORY FOR ADDITIONAL INFORMATION

The THB offers delay-on-break operation with the ability to handle high current with all solid state circuitry—a timer and solid state relay in one package. High power, high reliability and low cost. Operate heaters, motors, and lamps with the performance only possible with solid state.

SPECIFICATIONS

1. Time Delay

1.1 Type: Factory fixed or adjustable
1.2 Range:
  a. 0.1 to 3 seconds (1 Meg. = 1 sec.)
  b. 0.5 to 60 seconds (1 Meg. = 20 sec.)
  c. 2 to 180 seconds (1 Meg. = 60 sec.)
  d. 5 to 600 seconds (1 Meg. = 120 sec.)
1.3 Repeat Accuracy: ± 2% under fixed conditions
1.4 Tolerance (Factory Calibration): ± 10% maximum
1.5 Time Delay vs. Temperature & Voltage: ± 10% maximum
1.6 Recycle Time: 100 milliseconds

2. Input

2.1 Operating Voltage: 24, 120 and 230 volts AC (nominal)
2.2 Tolerance: ± 15% of nominal
2.3 Line Frequency: 50 or 60 Hertz

3. Output

3.1 Type: Solid State
3.2 Form: Closed when initiate switch is closed and during timing
3.3 Maximum Load Currents:

MODEL	STEADY STATE	INRUSH *
A	6 amperes	60 amperes
B	10 amperes	100 amperes
C	20 amperes	200 amperes

NOTE: See Ordering Information

NOTE: The back mounting surface of the THB is metallized to provide a method of transferring heat from the package to a metal mounting surface. Heat sink compound is provided with each unit.

3.4 Minimum Load Current: 100 milliamperes
3.5 Allowable Plate Temperature: 90°C maximum
3.6 Voltage Drop: 2.5 volts typical at rated current

4. Protection

4.1 Transient Protected
4.2 Dielectric: 1500 volts RMS
4.3 Insulation Resistance: 100 megohms minimum

5. Mechanical

5.1 Mounting: Surface mounts with one #8 or #12 screw. Must be mounted to metal surface for proper heat dissipation.
5.2 Package: Phenolic housing with encapsulated circuitry
5.3 Termination: 1/4 inch male quick connect terminals

6. Environmental

6.1 Operating Temperature: -20°C to +60°C
6.2 Storage Temperature: -40°C to +90°C
6.3 Humidity: 95% relative

*Non-repetitive for 16 milliseconds. Contact Factory for further information.

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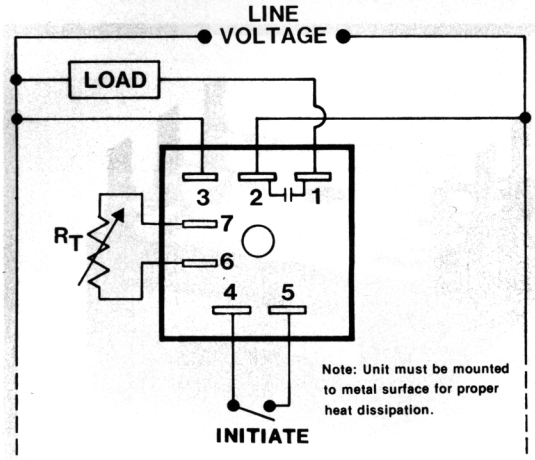
CONNECTION

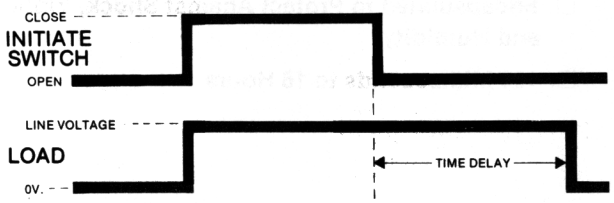


NOTE: R_T is used when external adjustment ordered.

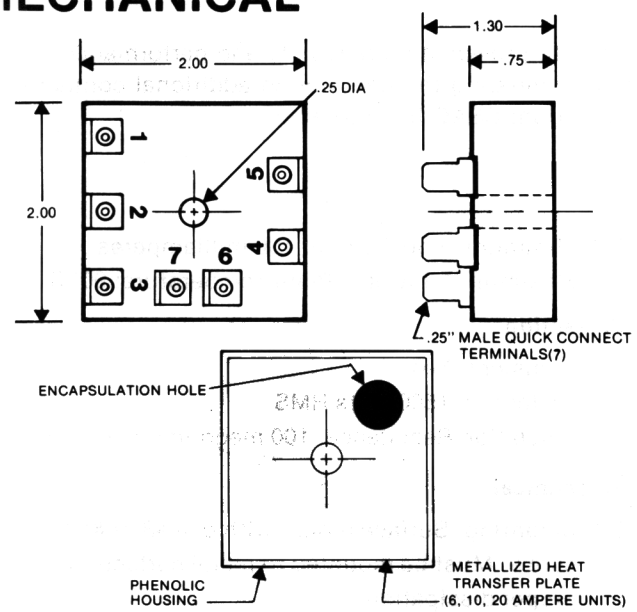
OPERATION

Delay on Break: Upon closure of the initiate switch the load is energized and will remain in this condition if no further action is taken. On opening of the initiate switch, the time delay is started. On completion of the delay period, the load is de-energized. Should the switch be re-closed during timing, the delay will be reset to zero.

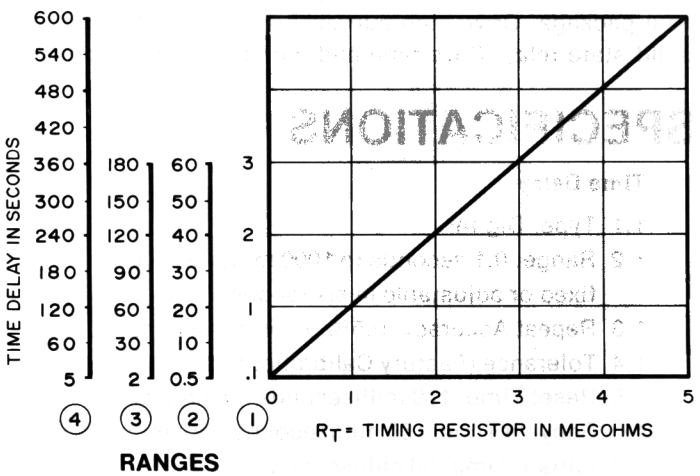
Time Diagram



MECHANICAL



EXTERNAL RESISTANCE VS. TIME DELAY



ORDERING INFORMATION

Series	Operating Voltage	Adjustment	Time Delay in Seconds	Output Rating in Amperes
☆ THB	2 — 24VAC ☆ 4 — 120VAC 6 — 230VAC	☆ 1 — Fixed 2 — External adjust	1 — 0.1 to 3 2 — 0.5 to 60 3 — 2 to 180 4 — 5 to 600 ☆ For fixed delays specify desired time in seconds	☆ A — 6 amperes B — 10 amperes C — 20 amperes

☆ **Example Part Number:** THB4120A is the THB Series delay-on-break timer, 120 volts AC with a fixed delay of 20 seconds and a steady state load current of 6 amperes.