THS-1 SERIES
Solid State Output

Application Data

Voltage Tolerance:

AC Operation: +10 to -15% of nominal voltage, 50/60 Hz
DC Operation: +10 to -15% of nominal voltage

Load (Burden): Maximum of 1VA for all voltages

Setting Accuracy:

Maximum Setting (Adjustable):   +5%, -0%
Minimum Setting (Adjustable):   +0%, -50%
Fixed Time Delay: $\pm$2% or 50ms, whichever is greater

Repeat Accuracy (constant voltage and temperature)**:**
$\pm$0.1% or $\pm$ 0.04 seconds, whichever is greater

Reset Time:

Triggered with Input Voltage: 50ms
Triggered with Control Switch: 40ms

Start-up Time:
(Time from when power is applied until unit is timing)
0.05 Seconds

Maintain Function Time:
(Time unit continues to operate after power is removed)
0.01 Seconds

Units Triggered by a Control Switch:
Minimum required trigger switch closure time is 50ms.

Temperature: Operating: -28º to 65ºC (-18º to 149ºF)
 Storage: -40º to 85ºC (-40º to 185ºF)

Output Contacts:
Normally Open Solid State 1A Continuous, 10A Inrush @ 65º C, Pilot Duty

Life:
No predictable failure if used within operating parameters.

Leakage Current (OFF-State): < 5ma @ 240V AC

Minimum Load Current: 20ma

Effective Voltage Drop (ON-State): Maximum 1.6V @ 1A for all voltages

Compatibility:
Using a solid state switch to initiate the time sequence is acceptable.

Mounting:
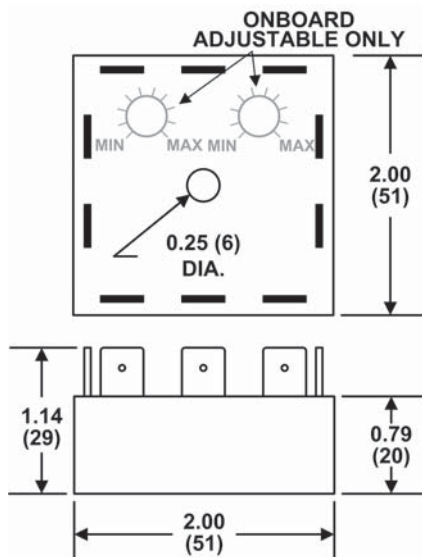Surface with one #8 or #10 screw and a maximum tightening torque of 15 in-lbs.

Termination:
0.25" male quick-connect terminals

Approvals:

File #E236146

Dimensions

All Dimensions in
Inches (Millimeters)

Remote Time Delay

THS-1 Series products can be built with two terminals for remote adjustable or f xed time delays. To order a product with a remote time delay, complete the Product Number by adding the two-digit Code from the Table shown on the appropriate product selection page followed by the suff x "R1", i.e., THS-10242-30R1.

Adjustable Time Delay
A 100K ohm potentiometer is required to obtain the maximum time delay for all standard ranges. To use other values of remote potentiometers, contact Macromatic.

Fixed Time Delay
A f xed time delay can be set by connecting a resistor across the two terminals. To determine the resistor value required, use the following equation:

$$R = \frac{T}{T_{max}} \times 100,000$$

R   = Resistance value required to obtain T
T   = Desired time delay
T_{max} = Maximum time delay of range

Example: Using time range 0.1-10 seconds, what resistor value is required for a f xed time delay of 5 seconds:

$$R = \frac{5}{10} \times 100,000 = 50,000 \text{ ohms (50K ohms)}$$