THR-1 SERIES
Relay Output

Application Data

Voltage Tolerance:

AC Operation: +10/-15% of nominal at 50/60 Hz
DC Operation: +10/-15% of nominal

Load (Burden): Maximum of 2 VA 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: 100ms
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:

Operate: -28 ° to 65°C (-18° to 149°F)
Storage: -45 ° to 85°C (-49° to 185°F)

Output Contacts:

10A @ 240VAC / 7A @ 28VDC SPDT, ¼hp @ 120VAC (N.O.)

Life:

Mechanical: 10,000,000 operations
Full Load: 100,000 operations

Compatibility:

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

Mounting:

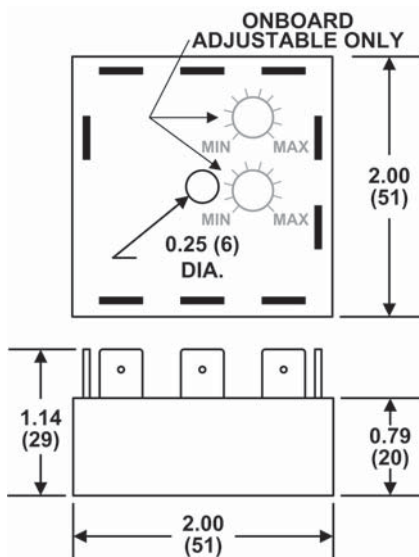Surface with one #8 or #10 screw and a maximum tightening torque of 15 in-lbs.

Termination:

0.25" male quick-connect terminals

Approvals:

c UL us
File #E109466   CE

Dimensions

All Dimensions in
Inches (Millimeters)

Remote Time Delay

Most THR-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., THR-10262-30R1. Contact Macromatic for information on limitations of remote time delays on functions with ON & OFF timing ranges.

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:

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