

# ST1 Series Solid State Delay-On-Make Timers



- $\dots$  100% solid state circuitry no moving parts
- ... Two terminal series connection to load
- ... Fixed or field adjustable delays from milliseconds to hours
- ... Up to 1 ampere continuous load current
- ... CMOS digital circuitry
- ... UL File #E96739(M)
- ... CSA File #LR62586

#### **Timing Mode:**

Delay on operate begins upon application of input power. The load is energized at the end of the delay period and remains so until input power is removed.

#### **Timing Diagram:**



#### **Contact Information:**

Solid state switching device 1 form A, normally open series connection. Continuous current rating 1 ampere. Maximum inrush 10 amperes. Minimum load current 5 milliamperes. Voltage drop typically 2.5 volts RMS @ 1 ampere.

#### **Environmental Information:**

Temperature Range:  $-40^{\circ}$  C to  $+65^{\circ}$  C ( $-40^{\circ}$  F to  $+149^{\circ}$  F)

### **Timing Specifications:**

Timing: Factory fixed, or .1 seconds to 100 hours in any one of eight ranges. Timing is set by user supplied resistor or potentiometer.

#### \*Timing ranges:

.1 to 10 seconds

.2 to 20 seconds

1 to 100 seconds

10 to 1000 seconds



.1 to 10 minutes 1 to 100 minutes 10 to 1000 minutes .1 to 10 hours 1 to 100 hours

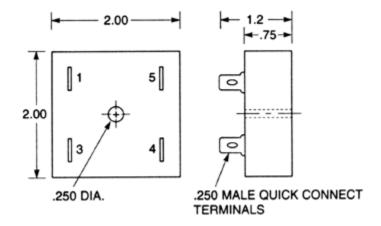
\*See External Resistor Selection Graph for specific resistor value.

Timing tolerance: fixed units =  $\pm$ 10%

Timing repeatability: +/- 2%

Timing cycle interrupt transfer: none

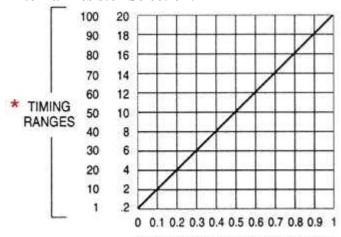
## **Outline Dimensions:**



# AC (60 Hz) and DC INPUT VOLTAGES & LIMITS:

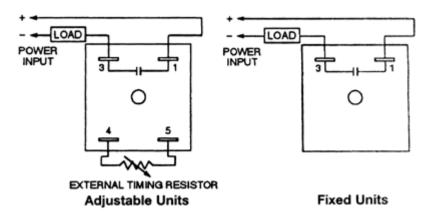
Nominal	Minimum	Maximum
12V	10V	14V
24V	20V	28V
48V	41V	55V
110V	95V	125V
120V	105V	130V
230V	190V	255V

#### **External Resistor Selection:**



TIMING RESISTOR IN MEGOHMS

# Wiring Diagrams:



## **Mechanical Information:**

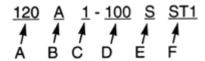
Enclosure 2 x 2 x 3/4 inch black plastic, epoxy sealed. Center hole mounting. Two or four 1/4 inch quick connect male terminals.

# Ordering Information:

Ordering Information: Definition of a part number for the Amperite ST1 Series Time Delay Relay: Example:

<sup>\*</sup> Note: use appropriate timing scale in accordance with Timing ranges specified above.





**A:** Denotes nominal input voltage. Voltages available: 12, 24, 48, 120, and 230 volts AC; 12, 24, 36, 48, and 110 volts DC. For other voltages consult factory.

**B:** Denotes type of input power required for operation

A = AC - Alternate Current

D = DC - Direct Current

**C&D:** Denotes range of adjustability using an external resistor or potentiometer, where C is the minimum timing and D is the maximum timing. Standard timing span is 100:1. For fixed timing units specify a single number.

**E:** Denotes unit of time delay: S = seconds; M = minutes; H = hours.

**F:** Denotes Amperite ST1 Series solid state, normally open time delay.

