



Solving your relay requirements since 1922

Amperite Co.

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## CR10 Series TDR

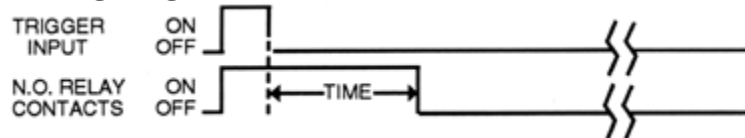


- ... Solid state analog circuitry
- ... Triggered delay on release timing mode
- ... DPDT (2 form C) isolated 10 ampere relay contacts
- ... Timing selection: Knob adjustable or Fixed
- ... Numerous models timing from 1 to 600 secs.
- ... UL File #E96739 (M)
- ... CSA File #LR62586-3

### Timing Mode:

Input voltage must be applied continuously to operate the internal relay. Relay contacts transfer when the trigger input terminal is activated. The timing cycle begins when the trigger input terminal is deactivated. When the timing cycle is completed the relay will de-energize. The timing cycle may be reset to zero during the timing cycle by reactivating the trigger input terminal.

### Timing Diagram:



### Contact Information:

Arrangement: 2 form C (DPDT) - Diagrams C and D

Contact Material: Silver - Cadmium Oxide

Rating (Resistive):

10A @ 240V AC Resistive

15A @ 30V DC Resistive

15A @ 120V AC Resistive

1/3 HP @ 120V AC

1/2 HP @ 250V AC

Expected Life @ 25°C:

10 Million operations, Mechanical

100,000 operations minimum at rated loads

### Environmental Information:

Temperature Range: Storage:

-60°C to +105°C (-76°F to +221°F)



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Operating:  $-45^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-49^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ )

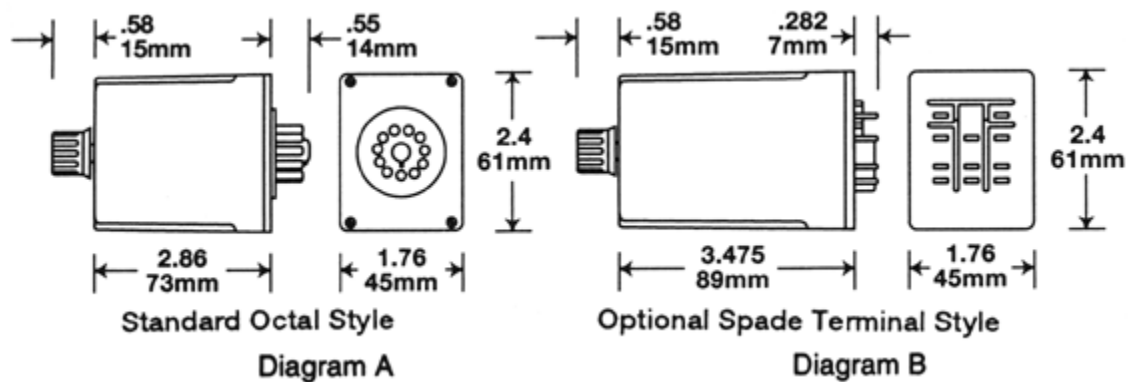
### Mechanical Information:

Termination: 11 pin Octal Style Plug or spade terminals (Diagram C&D)

Enclosure: Black plastic case. Knob adjustable models have a dial scale for reference only

Weight: 4 oz (114g) approx.

### Outline Dimension:



### Timing Specifications:

Timing - Fixed: 1 through 600 secs.

Timing Ranges: 1 - 120, 120- 240, 240 - 480, 480 - 600 secs. **Custom Timing is available.**

Timing Adjustment: Knob adjustable potentiometer.

Timing Tolerance:

Fixed Units:  $\pm 5\%$

Adjustable Units:  $-0$  to  $\pm 25\%$  of maximum specified delay time.

Minimum specified value or less at low end.

Repeatability:  $\pm 5\%$

Release Time: 60 ms typical, 100ms maximum

Timing Cycle Interrupt Transfer: none

### Initial Dielectric Strength:

Between open contacts: 1000V RMS

Between adjacent contacts: 1500V RMS

Between contacts & coil: 1500V RMS

### Input Information:

Voltage:

AC units- 12V, 24V, and 120V. Other voltages are available.



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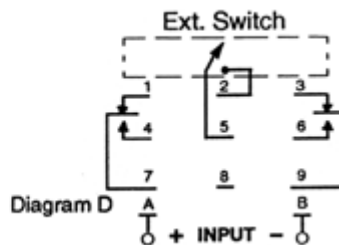
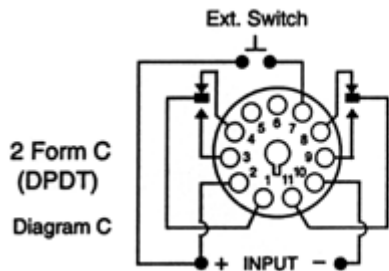
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DC units- 12V, 24V, 48V and 110V. Other voltages are available  
 Power Requirement: AC units: 3 VA or less; DC units: 3 Watts or less  
 Transient Protection: 1 JOULE MOV  
 Polarity Protection: On DC units - Yes

**Input Voltages & Limits:**

Nominal	Minimum	Maximum
12V AC	10V	14V
24V AC	20V	28V
120V AC	105V	130V
12V DC	11V	14V
24V DC	20V	32V
48V DC	41V	55V
110V DC	95V	125V

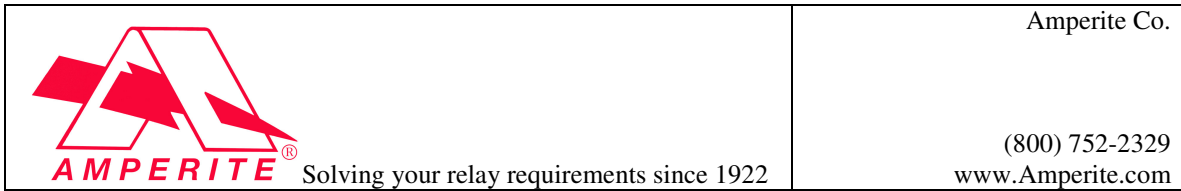
**Wiring Diagrams:**



**Ordering Information:**

Definition of part number for the Amperite CR10 Series Time Delay Relay:

Example:



<u>120</u>	<u>A</u>	<u>P</u>	<u>R</u>	<u>1</u>	<u>-120</u>	<u>L</u>	<u>C</u>
↑	↑	↑	↑	↑	↑	↑	↑
A	B	C	D	E	F	G	H

**A:** Denotes nominal input voltage. Voltages Available: 12, 24 & 120V AC; 12, 24, 48 & 110V DC. **Custom Voltages are available.**

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

A = AC - Alternating Current

D = DC - Direct Current

**C:** Denotes contact form: P = DPDT - 2 form C.

**D:** Denotes trigger reset function of CR10 Series TDR.

**E & F:** Denotes range of knob adjustability for timing (in seconds) where:

E= Minimum time delay.

F= Maximum time delay for adjustable TDR's.

Note:

1.) Ranges available: 1 -120, 120 - 240, 240 - 480 & 480 - 600 secs. **Custom Timing is available.**

2.) Both values (E & F) can be replaced by a single value for a factory preset time delay in seconds from 1 through 600 secs.

**G:** Enter "L" if optional 11-pin spade terminals are required (Diagrams B & D).

**H:** Denotes use of solid state analog circuitry of CR10 Series.

