



Solving your relay requirements since 1922

Amperite Co.

(800) 752-2329  
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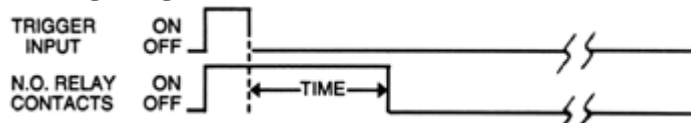
## CR Series TDR



- ... Solid state analog circuitry
- ... Triggered delay on release timing mode
- ... Compact size
- ... Relay output with SPST or SPDT contacts
- ... Timing selection: Fixed or knob adjustable
- ... Numerous models timing from 1 sec. to 600 secs.
- ... UL File # E96739 (M)
- ... CSA File #LR62586

**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:

- 1 form A (SPST Normally open) - Diagram A
- 1 form B (SPST Normally closed) - Diagram A
- 1 form C (SPDT) - Diagram B

|                                   |                        |                    |
|-----------------------------------|------------------------|--------------------|
| Contact Rating (Resistive)        | Max. switching power   | 30W, 50VA          |
|                                   | Max. switching voltage | 60V DC, 125V AC    |
|                                   | Max. switching current | 1A DC, AC          |
|                                   | Max. carrying current  | 0.5A AC; 1A 30V DC |
| UL/CSA rating 0.5A AC; 1A 30V, DC |                        |                    |

|                                                                                   |                                                                |
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Expected Life @ 25°C:  
100,000 operations minimum at rated loads

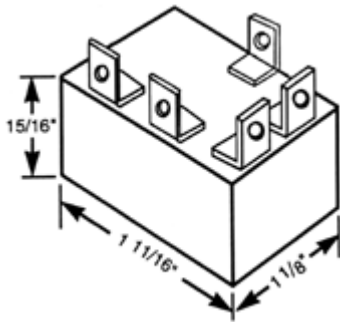
#### **Environmental Information:**

Temperature Range:  
Operating and storage: -25°C to +60°C, (-13°F to +140°F)

#### **Mechanical Information:**

Termination: .110 inch (standard), .250 inch (optional), or screw terminals (optional)  
Enclosure: Black plastic case  
Mounting: Single screw or optional 2-screw panel mount  
Weight: 0.8 oz (23g) approx.

#### **Outline Dimensions:**



#### **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: ±5%; Adjustable Units: -0 to +25% of maximum specified delay time. Minimum specified value or less at low end.  
Repeatability: ±5%  
Release Time: 60 ms typical, 100 ms maximum

#### **Initial Dielectric Strength:**

Between open contacts: 500V RMS, Between contacts & coil: 500V RMS

#### **Input Information:**

Voltage:  
AC units- 12V, 24V, and 115V; DC units- 12V, 24V, 48V and 110. Other voltages are available  
Power Requirement: AC units: 2 VA or less; DC units: 2 Watts or less  
Polarity Protection: On DC units - Yes



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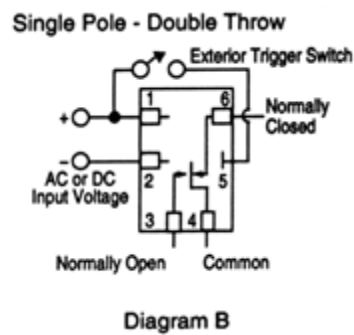
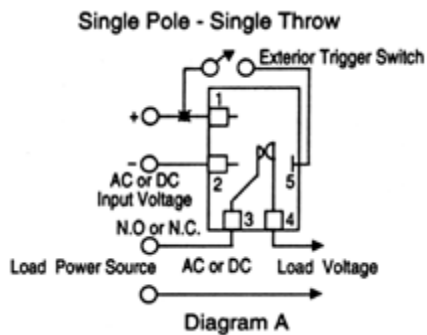
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### Input Voltages & Limits:

| Nominal | Minimum | Maximum |
|---------|---------|---------|
| 12V AC  | 10V     | 14V     |
| 24V AC  | 20V     | 28V     |
| 115V AC | 105V    | 130V    |
| 12V DC  | 11V     | 14V     |
| 24V DC  | 20V     | 32V     |
| 48V DC  | 41V     | 55V     |
| 48V DC  | 95V     | 125V    |

### Wiring Diagrams:



### Ordering Information:

Definition of a part number for the Amperite CR Series Time Delay Relay.

Example:

115 A NO R 1 -120 X C

↑    ↑    ↑    ↑    ↑    ↑    ↑    ↑

A    B    C    D    E    F    G    H

|                                                                                   |                                                                |
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**A:** Denotes nominal input voltage.

Voltages Available: 12, 24 & 115V 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:

NO = SPST - 1 form A (normally open)

C = SPST - 1 form B (normally closed)

SPDT = 1 form C (single pole, double throw)

**D:** Denotes trigger reset function of CR 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 seconds

**G:** Denotes form of termination - blank = .110 male electro-plate solder terminals (standard), X = .250 male quick connect terminals (optional), S = screw terminals (optional).

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