

# DCR10 Series TDR

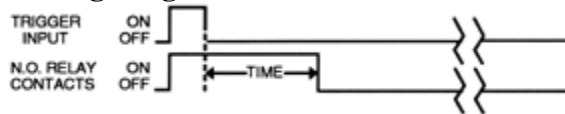


- ... Solid state CMOS digital circuitry
- ... Triggered delay on release timing mode
- ... DPDT (2 form C) isolated 10 ampere relay contacts
- ... Timing selection: Knob adjustable or Fixed
- ... Numerous models timing from 0.1 secs. to 1000 hours.
- ... UL File #E96739 (M)
- ... CSA File #LR62586

## 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: 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)

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

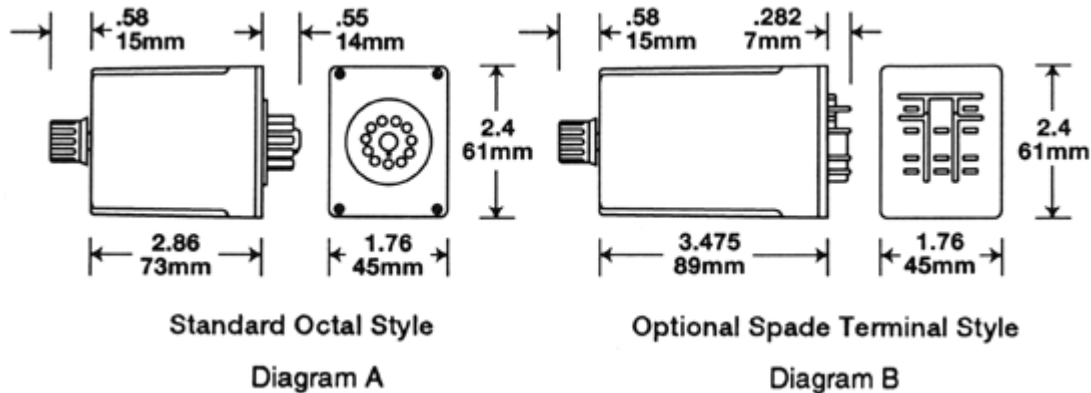
### Mechanical Information:

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

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

Weight: 4 oz (114g) approx.

### Outline Dimensions:



### Timing Specification:

Timing - Fixed: 0.1 sec. through 1000 hours.

Timing Ranges: Standard timing ranges are as follows: .1 to 10 secs., 3 to 30 secs., .6 to 60 secs., 1.8 to 180 secs., 5 to 300 secs., 1 to 10 mins., 1 to 60 mins., 10 to 100 mins., 1 to 60 hours. **Custom timing is available.**

Timing Adjustment: Knob adjustable potentiometer.

Timing Tolerance: Fixed Units:  $\pm 5\%$ ; 1% units are available at extra cost.

Adjustable Units: -0 to +10% of maximum specified delay time.

Minimum specified value or less at low end.

Repeatability:  $\pm 1\%$

Release Time: 60 ms typical, 100 ms maximum

Timing Cycle Interrupt Transfer: None

Reset: Upon interruption power

### 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; 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

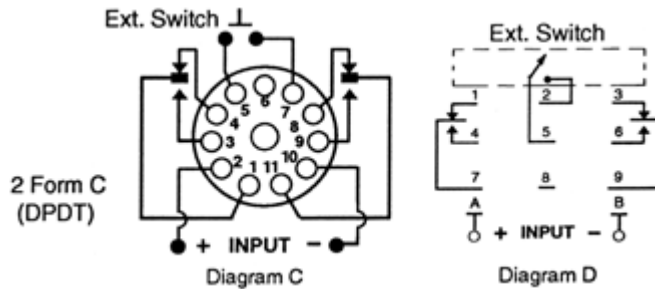
Transient Protection: 1 Joule MOV

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 a part number for the Amperite DCR10 Series Time Delay Relay.

Example:

<u>120</u>	<u>A</u>	<u>P</u>	<u>1</u>	<u>-60</u>	<u>M</u>	<u>L</u>	<u>DCR10</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 & E:** Denotes range of knob adjustability for timing (in seconds, minutes or hours) where:

D= Minimum time delay. E= Maximum time delay for adjustable TDR'S.

Note:

- 1.) Ranges available: See standard timing ranges above. Custom Timing is available.
- 2.) Both values (D & E) can be replaced by a single value for a factory preset time delay in seconds, minutes or hours from 0.1 secs. through 1000 hours.

**F:** Denotes use of seconds, minutes or hours in timing value(s), S = seconds, M = minutes, H = hours.

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

**H:** Denotes use of solid state digital circuitry of DCR10 Series.



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