

## DC10 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:

Delay on operate timing cycle begins upon application of input power. The relay contacts transfer at the end of the delay period and will remain transferred until input voltage is removed. Reset occurs when input voltage is removed.

## Timing diagram:



## Contact Information:

Arrangement: 2 form C (DPDT) - Diagram C
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 @ $25^{\circ} \mathrm{C}$ : 10 Million operations, Mechanical; 100,000 operations minimum at rated loads.

## Environmental Information:

Temperature Range:
Storage: $-60^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}\left(-76^{\circ} \mathrm{F}\right.$ to $\left.+221^{\circ} \mathrm{F}\right)$
Operating: $-45^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}\left(-49^{\circ} \mathrm{F}\right.$ to $\left.+158^{\circ} \mathrm{F}\right)$


## Mechanical Information:

Termination: 8 pin Octal Style Plug or 11 pin spade terminals (Diagram C \& D) Enclosure: White plastic case. Knob adjustable models have a dial scale for reference only.
Weight: $4 \mathrm{oz}(114 \mathrm{~g})$ approx.
Outline Dimensions: (Octal Style):
Please contact us for information on 11-pin spade terminal style (LDC10).


## Timing Specification:

Timing - Fixed: 0.1 sec . through 1000 hours.
Timing Ranges: Standard timing ranges are as follows:
.1 to 10 secs., 1 to 30 secs., 1.8 to 180 secs., 5 to 300 secs., 1 to 60 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 of power
Initial Dielectric Strength:
Between open contacts: 1000V RMS, Between adjacent contacts: 1500V RMS, Between contacts \& coil: 1500V RMS

## Input Information:

Voltage: AC units- $12 \mathrm{~V}, 24 \mathrm{~V}$, and 120 V ; DC units: $12 \mathrm{~V}, 24 \mathrm{~V}, 48 \mathrm{~V}$, and 110 V . 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 |
| :--- | :---: | :---: |
| 12 V AC | 10 V | 14 V |
| 24 V AC | 20 V | 28 V |
| 120 V AC | 105 V | 130 V |
| 12 V DC | 11 V | 14 V |
| 24 V DC | 20 V | 32 V |
| 48 V DC | 41 V | 55 V |
| 110 V DC | 95 V | 125 V |

## Wiring Diagrams:



OMPEATTE Ordering Information:
Definition of a part number for the Amperite DC10 Series Time Delay Relay.
Example:


A: Denotes nominal input voltage. Voltages available: 12, 24 \& 120V AC; 12, 14, 48, \& 110 V 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: $\mathrm{P}=\mathrm{DPDT}-2$ form C .

D \& E: Denotes range of knob adjustability for timing (in seconds, minutes or hours) where:
$\mathrm{D}=$ Minimum time delay. $\mathrm{E}=$ Maximum time delay for adjustable TDR'S.
Note:
1.) Ranges available: See standard timing ranges above. Custom timing is available. 2.) Both values ( $\mathrm{D} \& \mathrm{E}$ ) 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), $\mathrm{S}=$ seconds, $\mathrm{M}=$ minutes, $\mathrm{H}=$ hours.

G: Enter "L" if optional 11-pin spade terminals are required (Diagram D). Contact us for dimensional differences.

H: Denotes use of solid state digital circuitry of DC10 Series.

