

# Time Delay Relays

## DEDICATED - DELAY-ON-BREAK

### TRB Series



### Description

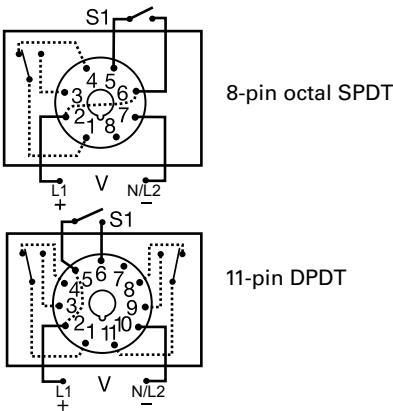
The TRB series combines an isolated, 8 A electromechanical relay output with digital timing circuitry. False trigger of the TRB by a transient is unlikely because of the complete isolation of the circuit from the line prior to initiation. The initiate contact is common to one side of the line and may be utilized to operate other loads. Installation is easy due to the TRB's industry standard 8- or 11-pin plug-in base wiring.

#### Operation (Delay-on-Break)

Input voltage must be applied before and during timing. Upon closure of the initiate switch, the output relay energizes. The time delay begins when the initiate switch is opened (trailing edge triggered). The output remains energized during timing. At the end of the time delay, the output de-energizes. The output will energize if the initiate switch is closed when input voltage is applied.

**Reset:** Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.

### Wiring Diagram



### Features & Benefits

| FEATURES                                           | BENEFITS                                                 |
|----------------------------------------------------|----------------------------------------------------------|
| <b>Complete isolation of circuit from line</b>     | No false trip due to transients                          |
| <b>Industry standard 8 or 11-pin connection</b>    | Provides easy installation and field replacement         |
| <b>Isolated, 8 A, SPDT or DPDT output contacts</b> | Allows control of loads with independent voltage sources |
| <b>Digital circuitry</b>                           | Repeat accuracy +/- 2 %                                  |

### Ordering Information

| MODEL        | INPUT VOLTAGE | ADJUSTMENT | OUTPUT FORM  | TIME TOLERANCE | TIME DELAY |
|--------------|---------------|------------|--------------|----------------|------------|
| TRB120A4Y120 | 120 V ac      | Onboard    | 11-pin, DPDT | + /- 10 %      | 2–120 s    |

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### Accessories



**OT08PC 8-pin Octal Socket for UL listing\***  
8-pin 35 mm DIN-rail or surface mount. Rated at 10 A @ 600 V ac. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail.



**OT11PC Octal Socket for UL listing\***  
11-pin surface & DIN rail mountable. Rated for 10 A @ 300 V ac

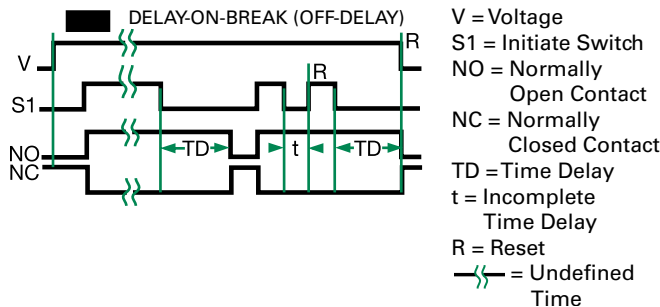


**P1011-6 Octal Socket for UL listing\***  
8-pin surface mount socket with binder head screw terminals. Rated 10 A @ 600 V ac.



**C103PM (AL) DIN Rail**  
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

### Function Diagram



### Specifications

#### Time Delay

##### Type

Digital circuitry  
See "Ordering Information" table  
±2 %

##### Range

##### Repeat Accuracy

##### Fixed Time Tolerance

##### & Setting Accuracy

±5, 10, or 20 %

##### Initiate Time

≤ 70 ms

##### Reset Time

≤ 75 ms

##### Recycle Time

≤ 250 ms

##### Time Delay vs Temp.

##### & Voltage

≤±5 %

#### Input

##### Voltage

24/28 V dc; 120 V ac

##### Indicator

LED indicates relay is energized

##### Tolerance

##### 24V dc/ac

-15 %–20 %

##### 120 V ac

-20 %–10 %

##### AC Line Frequency

50/60 Hz

##### Power Consumption

≤ 3.25W

#### Output

##### Type

Electromechanical relay

##### Form

Isolated SPDT or DPDT

##### Rating

8 A resistive @ 120/240 V ac

1/3 hp @ 120/240 V ac

Mechanical - 1 x 10<sup>7</sup>; Electrical - 1 x 10<sup>6</sup>

#### Life

#### Protection

##### Insulation Resistance

≥ 100 MΩ

##### Isolation Voltage

≥ 1500 V rms between input to output

##### Polarity

Dc units are reverse polarity protected

#### Mechanical

##### Mounting

Plug-in socket

##### Dimensions

**H** 44.45 mm (1.75"); **W** 60.33 mm (2.38");

**D** (with socket) 104.78 mm (4.13")

Octal 8-pin plug-in or 11-pin plug-in

#### Termination

#### Environmental

##### Operating/Storage

##### Temperature

-20 °C to 65 °C / -30 °C to 85 °C

##### Weight

≈ 4 oz (113 g)

##### Safety Marks

##### UL (socket required)\*

UL 508 (E57310)

\*UL Listed when used with Part Number OT08-PC, RB08-PC, OT11-PC, or RB11-PC manufactured by Custom Connector Corp.

**Note:** Manufacturer's recommended screw terminal torque for the OT series sockets is 12 in.-lbs.

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