

## TRM SERIES



\*8-pin models UL listed when used in combination with P1011-6 socket only.



8-PIN



11-PIN

### Description

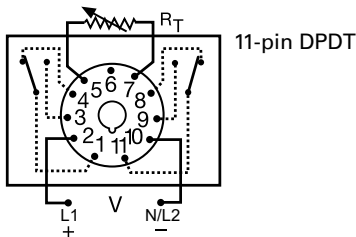
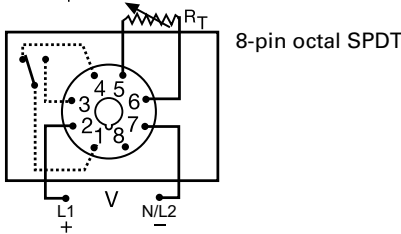
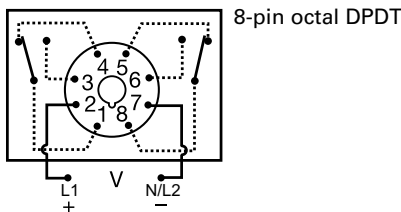
The TRM Series is a combination of analog electronic circuitry and electromechanical relay output. It provides input to output isolation with a wide variety of input voltages and time ranges. Standard plug-in base wiring, fast reset, rugged enclosure, and good repeat accuracy make the TRM a select choice in any OEM application.

### Operation (Delay-on-Make)

Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output relay energizes and remains energized until input voltage is removed.

**Reset:** Removing input voltage resets the time delay and output.

### Wiring Diagram



V = Voltage

$R_T$  is used when external adjustment is ordered. Relay contacts are isolated.

### Features & Benefits

| FEATURES   | BENEFITS                                       |
|--|--|
| <b>Electronic circuitry with electromechanical relay</b> | Repeat Accuracy +/- 2%                         |
| <b>Isolated 10A, SPDT or DPDT output contacts</b>        | Allows control of loads for AC or DC voltages. |

### Accessories



#### BZ1 Front Panel Mount Kit

Provides an easy method of through-the-panel mounting of 8- or 11-pin plug-in timers, flashers, and other controls.



#### NDS-8 Octal 8-pin Socket

8-pin 35mm DIN rail or surface mount. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail. Uses PSC8 hold-down clips.



#### NDS-11 11-pin Socket

11-pin 35mm DIN rail or surface mount. Surface mounted with two #6 screws or snaps onto a 35 mm DIN rail. Uses PSC11 hold-down clips.



#### PSC8 or PSC11 Hold-down Clips

Securely mounts plug-in controls in any position. Provides protection against vibration. Use PSC8 with NDS-8 Octal Socket or PSC11 with NDS-11 Socket. Sold in sets of two.

### Ordering Information

| MODEL        | INPUT VOLTAGE | ADJUSTMENT | OUTPUT                            | TIME TOLERANCE | TIME DELAY |
|--------------|---------------|------------|-----------------------------------|----------------|------------|
| TRM120A2X30  | 120VAC        | Knob       | Octal, DPDT                       | +/- 20%        | 1 - 30s    |
| TRM120A2Y120 | 120VAC        | Knob       | Octal, DPDT                       | +/- 10%        | 2 - 120s   |
| TRM120A2Y180 | 120VAC        | Knob       | Octal, DPDT                       | +/- 10%        | 2 - 180s   |
| TRM24A8Y5    | 24VAC         | External   | Octal, SPDT without potentiometer | +/- 10%        | 0.1 - 5s   |
| TRM24D1X10   | 24VDC/28VDC   | Fixed      | Octal, DPDT                       | +/- 20%        | 10s        |
| TRM24D1X2    | 24VDC/28VDC   | Fixed      | Octal, DPDT                       | +/- 20%        | 2s         |

If you don't find the part you need, call us for a custom product 800-843-8848

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## Accessories



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



**P1004-13, P1004-13-X Versa-Pot**  
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.



**P0700-7 Versa-Knob**  
Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.

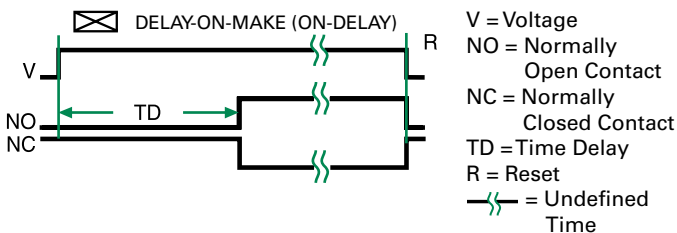
## Selection Guides

| R <sub>T</sub> Selection Chart |                |
|--------------------------------|----------------|
| Time Delay*                    |                |
| Range                          | R <sub>T</sub> |
| Seconds                        | Megohm         |
| 0.05...1                       | 1.0            |
| 0.05...2                       | 2.0            |
| 0.05...3                       | 3.0            |
| 0.1...5                        | 5.0            |
| 0.1...10                       | 3.0            |
| 1...30                         | 1.5            |
| 1...60                         | 3.0            |
| 2...120                        | 2.0            |
| 2...180                        | 3.0            |
| 7...240                        | 1.5            |
| 7...300                        | 2.0            |
| 7...360                        | 2.0            |
| 7...420                        | 3.0            |
| 7...480                        | 3.0            |
| 7...600                        | 5.0            |

| External R <sub>T</sub> P/N Selection Table |             |
|---|-------------|
| VALUE                                       | PART NUMBER |
| 1M ohm                                      | P1004-16    |
| 1.5M ohm                                    | P1004-15    |
| 2M ohm                                      | P1004-14    |
| 3M ohm                                      | P1004-12    |
| 5M ohm                                      | P1004-13    |
| 1M ohm                                      | P1004-16-X  |
| 1.5M ohm                                    | P1004-15-X  |
| 2M ohm                                      | P1004-14-X  |
| 3M ohm                                      | P1004-12-X  |
| 5M ohm                                      | P1004-13-X  |

\* When selecting an external R<sub>T</sub> add at least 15...30% for tolerance of unit and the R<sub>T</sub>.

## Function Diagram



## Specifications

### Time Delay

**Type** Analog circuitry  
**Range** 50ms - 10m in 15 adjustable ranges or fixed  
**Repeat Accuracy** ±2% or 20 ms, whichever is greater

### Fixed Time Tolerance &

**Setting Accuracy** ±5, 10, or 20%

**Reset Time** ≤ 50ms

**Recycle Time** After timing: ≤ 20ms

During timing: 0.1% of max. time delay or 75ms, whichever is greater

### Time Delay vs Temp.

### & Voltage

≤ ±10%

### Input

### Voltage

24 or 110VDC; 24, 120, or 230VAC

### Tolerance

### 24VDC/AC

-15% - 20%

### 110 to 230VAC/DC

-20% - 10%

### AC Line Frequency

50/60 Hz

### Power Consumption

≤ 2.25W

### Output

### Type

Electromechanical relay

### Form

Isolated DPDT or SPDT

### Rating

10A resistive @ 120/240VAC & 28VDC;

1/3 hp @ 120/240VAC

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

### Life

### Protection

### Isolation Voltage

≥ 1500V RMS between input & output terminals

### Insulation Resistance

≥ 100 MΩ

### Polarity

DC units are reverse polarity protected

### Mechanical

### Mounting

Plug-in socket

### Dimensions

**H** 91.6 mm (3.62"); **W** 60.7 mm (2.39");

**D** 45.2 mm (1.78")

### Termination

Octal 8-pin or 11-pin plug-in

### Environmental

### Operating/Storage

### Temperature

-20° to 65°C / -30° to 85°C

### Weight

≈ 6 oz (170 g)