

## TDMB SERIES

### Delay-on-Make/Delay-on-Break

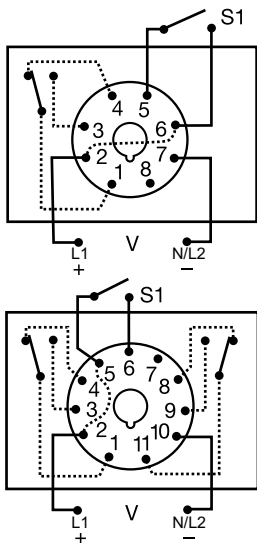


8-PIN



11-PIN

### Wiring Diagram



8-PIN OCTAL SPDT

V = Voltage  
S1 = Initiate Switch or Thermostat

Relay contacts are isolated.

11-PIN DPDT  
(P/N ends with D)

### Ordering Information

| MODEL    | INPUT VOLTAGE | DELAY-ON-MAKE                   | DELAY-ON-BREAK                  | PLUG TYPE          |
|----------|---------------|---------------------------------|---------------------------------|--------------------|
| TDMB411  | 120VAC        | 0.1 - 102.3s in 0.1s increments | 0.1 - 102.3s in 0.1s increments | Octal (8-pin) SPDT |
| TDMB413D | 120VAC        | 0.1 - 102.3s in 0.1s increments | 10 - 10230s in 10s increments   | 11-pin DPDT        |
| TDMB422  | 120VAC        | 1 - 1023s in 1s increments      | 1 - 1023s in 1s increments      | Octal (8-pin) SPDT |
| TDMB422D | 120VAC        | 1 - 1023s in 1s increments      | 1 - 1023s in 1s increments      | 11-pin DPDT        |
| TDMB622  | 230VAC        | 1 - 1023s in 1s increments      | 1 - 1023s in 1s increments      | Octal (8-pin) SPDT |

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

### Description

The TDMB combines both delay-on-make and delay-on-break functions into one plug-in package. Selection of the time period is accomplished with dual switches, one for the on delay and the other for the off delay. SPDT or DPDT output options provide isolated, 10A switching capability.

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

Input voltage must be applied at all times. The output relay is de-energized. Upon closure of the initiate switch, the green LED glows and the delay-on-make time delay (T1) begins. At the end of T1, the output relay energizes and the red LED glows. When the initiate switch opens, the green LED turns OFF and the delay-on-break time delay (T2) begins. At the end of T2, the output relay de-energizes and the red LED turns OFF.

**Reset:** Removing input voltage resets time delay and output. Opening the initiate switch during the delay-on-make delay, resets T1. Closing the initiate switch during the delay-on-break delay, resets T2.

### Features & Benefits

| FEATURES                                                           | BENEFITS                                                                |
|--------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Digital circuitry</b>                                           | Repeat Accuracy + / - 0.1%,<br>Setting accuracy + / - 2%                |
| <b>Isolated, 10A, SPDT or DPDT output contacts</b>                 | Allows control of loads for AC or DC voltages                           |
| <b>User selectable Delay-on-Make and Delay-on-Break time delay</b> | Timing settings are independently adjustable for added flexibility      |
| <b>Industry standard octal plug connection</b>                     | Eliminates need for special connectors                                  |
| <b>LED Indication</b>                                              | Provides visual indication of initiate, timing, and relay output status |
| <b>DIP Switch Adjustment</b>                                       | Provides first time setting accuracy                                    |

### 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.

## TDMB SERIES

### Specifications

#### Time Delay

##### Type

##### Range\*\*

Microcontroller circuitry  
0.1 - 102.3s in 0.1s increments  
1 - 1023s in 1s increments  
10 - 10,230s in 10s increments  
 $\pm 0.1\%$  or 20ms, whichever is greater  
 $\leq \pm 2\%$  or 50ms, whichever is greater  
 $\leq 150\text{ms}$   
 $\leq \pm 2\%$   
Green; on when the initiate switch is closed

##### Repeat Accuracy

##### Setting Accuracy

##### Reset Time

##### Time Delay vs Temp.

##### & Voltage

##### Control LED Indicator

##### Input

##### Voltage

12 or 24VDC; 24, 120, or 230VAC;  
24 to 240VAC/DC; 12 to 48VDC

##### Tolerance

##### 12VDC & 24VDC/AC

##### 110 to 230VAC/DC

##### AC Line Frequency/DC Ripple

##### Power Consumption

-15% - 20%  
-20% - 10%  
50/60 Hz /  $\leq 10\%$   
AC  $\leq 2\text{VA}$ ; DC  $\leq 2\text{W}$

##### Output

##### Type

##### Form

##### Rating

Electromechanical relay  
SPDT or DPDT  
10A resistive @ 120/240VAC & 28VDC;  
1/3 hp @ 230VAC  
Mechanical -  $1 \times 10^7$ ; Electrical -  $1 \times 10^5$   
250VAC  
Red; on when output relay energizes  
(not included on 12VDC units)

##### Life

##### Max. Switching Voltage

##### Relay LED Indicator

#### Protection

##### Insulation Resistance

##### Polarity

##### Isolation Voltage

$\geq 100\text{M}$   
DC units are reverse polarity protected  
 $\geq 1500\text{V}$  RMS input to output

#### Mechanical

##### Mounting

##### Dimensions

Plug-in socket  
**H** 81.3 mm (3.2"); **W** 60.7 mm (2.4");  
**D** 45.2 mm (1.8")

##### Termination

#### Environmental

##### Operating/Storage

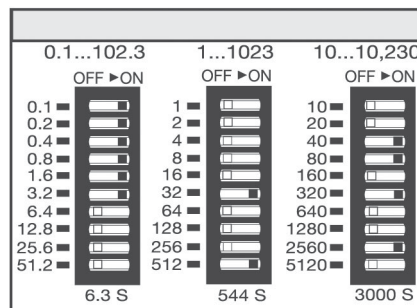
##### Temperature

##### Weight

-20° to 60°C / -30° to 85°C  
 $\approx 6\text{ oz}$  (170 g)

\*\* For CE approved applications, power must be removed from the unit when a switch position is changed.

### Digi-Set Binary Switch Operation



### Function Diagram

