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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Littelfuse® Expertise Applied | Answers Delivered

TDMB SERIES

Delay-on-Make/Delay-on-Break





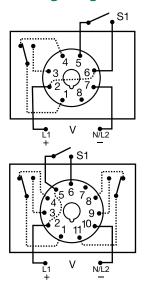


8-PIN



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

Range**

0.1 - 102.3s in 0.1s increments
1 - 1023s in 1s increments
10 - 10,230s in 10s increments

Repeat Accuracy $\pm 0.1\%$ or 20ms, whichever is greater **Setting Accuracy** $\leq \pm 2\%$ or 50ms, whichever is greater

Reset Time ≤ 150ms

Time Delay vs Temp.

& Voltage $\leq \pm 2\%$

Control LED Indicator Green; on when the initiate switch is closed

Input

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

Tolerance

 12VDC & 24VDC/AC
 -15% - 20%

 110 to 230VAC/DC
 -20% - 10%

 AC Line Frequency/DC Ripple
 $50/60 \text{ Hz} / \le 10\%$

 Power Consumption
 AC $\le 2VA$; DC $\le 2W$

Output

Type Electromechanical relay

Form SPDT or DPDT

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

1/3 hp @ 230VAC

Life Mechanical - 1 x10⁷; Electrical - 1 x 10⁵

Max. Switching Voltage 250VAC

Relay LED Indicator
Red; on when output relay energizes
(not included on 12VDC units)

Protection

Insulation Resistance ≥ 100N

Polarity DC units are reverse polarity protected Isolation Voltage ≥ 1500V RMS input to output

Mechanical

Mounting Plug-in socket

Dimensions H 81.3 mm (3.2"); **W** 60.7 mm (2.4");

D 45.2 mm (1.8")

Termination Octal 8-pin plug-in, magnal 11-pin plug-in

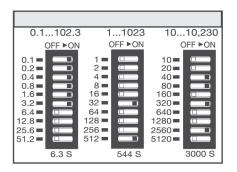
Environmental

Operating/Storage

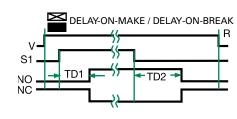
Temperature -20° to 60° € / -30° to 85° €

Weight ≅ 6 oz (170 g)

Digi-Set Binary Switch Operation



Function Diagram



V = Voltage S1 = Initiate Switch NO = Normally Open Contact

NC = Normally Closed Contact TD1,TD2 = Time Delay

R = Reset

—⟨├─ = Undefined Time

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