

# TDM / TDMH / TDML SERIES

## Delay-on-Make Timer



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



8-PIN

### Description

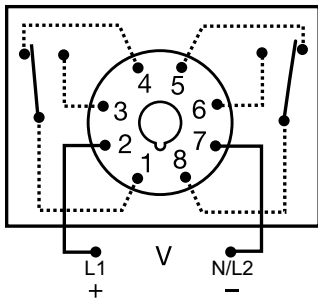
The TDM/TDMH/TDML Series is a delay-on-make timer that combines accurate digital circuitry with isolated, DPDT relay contacts in an industry standard 8-pin plug-in package. DIP switch adjustment allows precise selection of the time delay over the full time delay range. The TDM/TDMH/TDML Series is the product of choice for custom control panel and OEM designers.

#### 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



Relay contacts are isolated.

### Features & Benefits

FEATURES	BENEFITS
<b>Wide delay range (0.1s to 2.8h)</b>	User selectable via DIP switches for fine tuning to individual applications.
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.1%
<b>Dip switch adjustment</b>	Provides first time setting accuracy of +/-2%
<b>Setting accuracy +/-2%</b>	Provides flexibility for use in most applications
<b>LED indication</b>	Provides visual indication of time delay status
<b>Isolated 10A, 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.



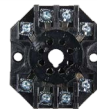
#### NDS-8 Octal 8-pin Socket

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.



#### 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.



#### P1011-6 Octal Socket for UL listing\*

8-pin surface mount socket with binder head screw terminals. Rated 10A @ 600VAC.



#### C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.

### Ordering Information

MODEL	INPUT VOLTAGE	DELAY RANGE
TDM120AL	120VAC	1 - 1023s in 1s increments
TDM12DL	12VDC	1 - 1023s in 1s increments
TDM230AL	230VAC	1 - 1023s in 1s increments
TDM24AL	24VAC	1 - 1023s in 1s increments
TDM24DL	24VDC/28VDC	1 - 1023s in 1s increments
TDMH120AL	120VAC	10 - 10230s in 10s increments
TDMH24AL	24VAC	10 - 10230s in 10s increments
TDML110DL	110VDC	0.1 - 102.3s in 0.1s increments
TDML120AL	120VAC	0.1 - 102.3s in 0.1s increments
TDML12DL	12VDC	0.1 - 102.3s in 0.1s increments
TDML24DL	24VDC/28VDC	0.1 - 102.3s in 0.1s increments

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## Specifications

### Time Delay

<b>Type</b>	Digital integrated circuitry
<b>Range*</b>	0.1 - 102.3s in 0.1s increments 1 - 1023s in 1s increments 10 - 10,230s in 10s increments
<b>Repeat Accuracy</b>	±0.1% or 20ms, whichever is greater
<b>Setting Accuracy</b>	±2% or 50ms, whichever is greater
<b>Reset Time</b>	≤ 50ms
<b>Recycle Time</b>	During Timing - TDMH: ≤ 500ms TDM, TDML: ≤ 300ms

### Time Delay vs. Temperature & Voltage

<b>Indicator</b>	±2% LED glows during timing; relay is de-energized
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### Input

<b>Voltage</b>	12, 24, or 110 VDC; 24, 120, or 230VAC
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### Tolerance

<b>12VDC &amp; 24VDC/AC</b>	-15% - 20%
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<b>110VAC/DC to 230VAC</b>	-20% - 10%
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<b>AC Line Frequency</b>	50/60 Hz
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<b>Power Consumption</b>	≤ 2.25W
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### Output

<b>Type</b>	Electromechanical relay
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<b>Form</b>	DPDT
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<b>Rating</b>	10A resistive @ 120/240VAC & 28VDC; 1/3 hp @ 120/240VAC
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### Life

<b>Protection</b>	Mechanical - 1 x 10 <sup>7</sup> ; Electrical - 1 x 10 <sup>6</sup>
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<b>Polarity</b>	DC units are reverse polarity protected
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<b>Isolation Voltage</b>	≥ 1500V RMS input to output
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### Mechanical

<b>Mounting</b>	Plug-in socket
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<b>Dimensions</b>	<b>H</b> 81.3 mm (3.2"); <b>W</b> 60.7 mm (2.39"); <b>D</b> 45.2 mm (1.78")
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### Termination

<b>Environmental</b>	Octal 8-pin plug-in
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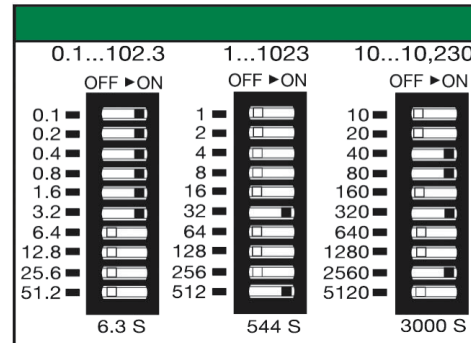
<b>Operating/Storage</b>	-20° to 65°C / -30° to 85°C
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<b>Temperature</b>	≈ 6 oz (170 g)
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<b>Weight</b>	
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\*For CE approved applications, power must be removed from the unit when a switch position is changed.

## Binary Switch Operation



## Function Diagram

