

# Delay On Make/Delay On Break

## TDMB Digi-Set

### Time Delay Relay



5

- Switch Settable Time Delays From 0.1 s ... 10,230 s in 3 Ranges
- +/-2% Setting Accuracy
- +/-0.1% Repeat Accuracy
- SPDT or DPDT Output Relay
- 10 A Output Contacts

Approvals:

### Description

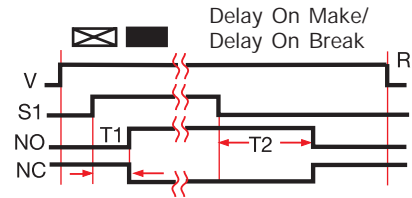
The TDMB combines both delay on make and delay on break functions into one plug-in package. Selection of the time period is accomplished with dual switches, one for the ON delay and the other for the OFF delay. SPDT or DPDT output options provide isolated, 10 A switching capability.

### Operation

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

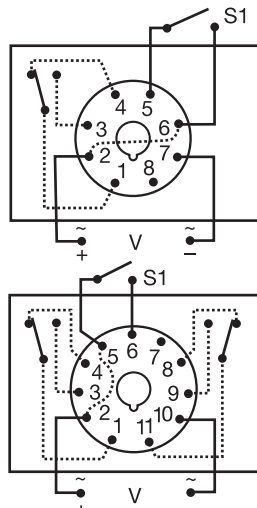
**Reset:** Removing input voltage resets time delay and output. Opening the initiate switch during the delay on make delay, resets T1. Closing the initiate switch during the delay on break delay, resets T2.

### Function



V = Voltage S1 = Switch Initiate R = Reset  
 NO = Normally Open NC = Normally Closed  
 T1 = Delay On Make Time T2 = Delay On Break Time  
 —||— = Undefined time

### Connection

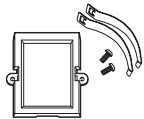


8 Pin Octal SPDT

11 Pin DPDT  
(P/N ends with D)

Relay contacts are isolated. Dashed lines are internal connections.

### Accessories



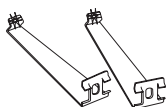
Panel mount kit  
P/N: BZ1



11 pin socket  
P/N: NDS-11



Octal  
8 pin socket  
P/N: NDS-8



Hold down clips  
P/Ns:  
PSC8 (NDS-8)  
PSC11 (NDS-11)

See accessory pages for specifications.

### Ordering Table

TDMB Series	X Input	X Delay On Make	X Delay On Break	X Type Plug/Output Form
-1	12 V DC *	0.1...102.3 s in 0.1 s increments	0.1...102.3 s in 0.1 s increments	D - 11 Pin Plug DPDT
-2	24 V AC	1...1023 s in 1 s increments	1...1023 s in 1 s increments	Blank - Octal Plug
-3	24 V DC	10...10230 s in 10 s increments	10...10230 s in 10 s increments	(8 Pin) SPDT
-4	120 V AC			
-5	110 V DC			
-6	230 V AC			

Example P/N: TDMB423, TDMB631D

\* No control status LED for 12 V DC

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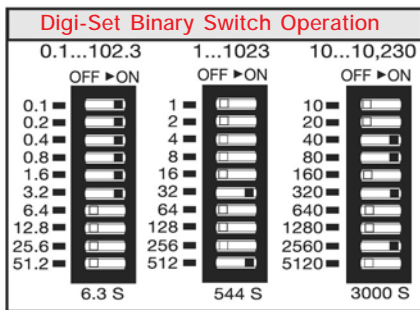
## TDMB Digi-Set

### Time Delay Relay

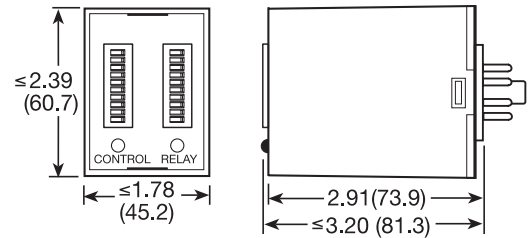
#### Technical Data

<b>Time Delay</b> Type Range**  Repeat Accuracy Setting Accuracy Reset Time Recycle Time Time Delay vs. Temperature & Voltage Control LED Indicator	Digital integrated circuitry 0.1 ... 102.3 s in 0.1 s increments 1 ... 1023 s in 1 s increments 10 ... 10,230 s in 10 s increments +/-0.1% or 20 ms, whichever is greater ≤ +/-2% or 50 ms, whichever is greater ≤ 150 ms ≤ 500 ms ≤ +/-5% Red; ON when the initiate switch is closed	**For CE approved applications, power must be removed from the unit when a switch position is changed.
<b>Input</b> Voltage Tolerance Line Frequency	12, 24, 110 V DC; 24, 120, 230 V AC -15% ... +20% -20% ... +10% 50 ... 60 Hz	
<b>Output</b> Type Form Rating Life Relay LED Indicator	Electromechanical relay SPDT or DPDT 10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC Mechanical -- $1 \times 10^7$ ; Electrical -- $1 \times 10^6$ Red; ON when output relay energizes (not included on 12 V DC units)	
<b>Protection</b> Isolation Voltage	≥ 1500 V RMS input to output	
<b>Mechanical</b> Mounting Package Termination	Plug-in socket 3.2 x 2.4 x 1.8 in. (81.3 x 60.7 x 45.2 mm) Octal plug (8 Pin), magnal plug (11 Pin)	
<b>Environmental</b> Operating Temperature Storage Temperature Weight	-20°C ... +60°C -30°C ... +85°C ≅ 6 oz (170 g)	

#### Mechanical View



Add value of switches in ON position for total time delay.



Inches (Millimeters)