Delay On Make/Delay On Break
TDMB Digi-Set
Time Delay Relay

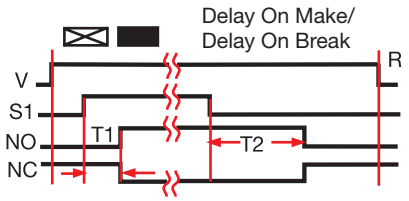
- Switch Settable Time Delays From 0.1 s ... 10,230 s in 3 Ranges
- +/-2% Setting Accuracy
- +/-0.1% Repeat Accuracy
- SPDT or DPDT Output Relay
- 10 A Output Contacts

Approvals:

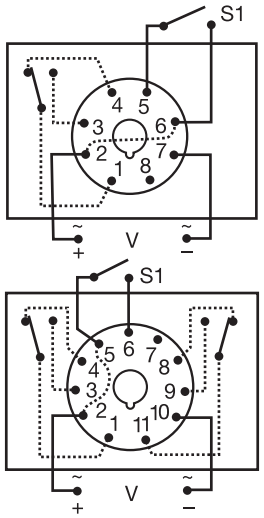
Description
The TDMB combines both delay on make and delay on break functions into one plug-in package. Selection of the time period is accomplished with dual switches, one for the ON delay and the other for the OFF delay. SPDT or DPDT output options provide isolated, 10 A switching capability.

Operation
Input voltage must be applied at all times. The output relay is de-energized. Upon closure of the initiate switch, the 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.

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

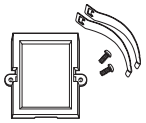
Connection


8 Pin Octal SPDT

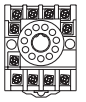
11 Pin DPDT
(P/N ends with D)

Relay contacts are isolated. Dashed lines are internal connections.

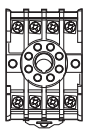
Accessories



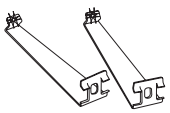
Panel mount kit
P/N: **BZ1**



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	X	X	X	X
Series	**Input**	**Delay On Make**	**Delay On Break**	**Type Plug/Output Form**
	A - 24... 240 V AC/DC	**1** - 0.1...102.3 s in 0.1 s increments	**1** - 0.1...102.3 s in 0.1 s increments	**D** - 11 Pin Plug DPDT
	D - 12... 48 V DC	**2** - 1...1023 s in 1 s increments	**2** - 1...1023 s in 1 s increments	Blank - Octal Plug (8 Pin) SPDT
	1 - 12 V DC	**3** - 10...10230 s in 10 s increments	**3** - 10...10230 s in 10 s increments	
	2 - 24 V AC			
	3 - 24 V DC			
	4 - 120 V AC			
	5 - 110 V DC			
	6 - 230 V AC			

NOTE: Options A & D qualify for Quickship delivery; grayed options require standard lead time.

Example P/N: **TDMBA12** = 24-240 V, 0.1 to 102.3 s DOM; 1 to 1023 s DOB, 8 pin connection base
TDMBD21D = 12-48V DC, 1 to 1023 s DOM; 0.1 to 102.3 s DOB, 11 pin connection base

TDMBgen 06.9.08

Delay On Make/Delay On Break
TDMB Digi-Set
Time Delay Relay

Dedicated timers

Technical Data

Time Delay		
Type	Microcontroller Circuitry	
Range**	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	**For CE approved applications, power must be removed from the unit when a switch position is changed.
Repeat Accuracy	+/-0.1% or 20 ms, whichever is greater	
Setting Accuracy	≤ +/-2% or 50 ms, whichever is greater	
Reset Time	≤ 150 ms	
Time Delay vs. Temperature & Voltage	≤ +/-2%	
Control LED Indicator	Green; ON when the initiate switch is closed	
Input		
Voltage	12 or 24 V DC; 24, 120, or 230 V AC; 24... 240 V AC/DC; 12... 48 V DC	
Tolerance 12 V DC & 24 V DC/AC	-15% ... +20%	
110 ... 230 V AC/DC	-20% ... +10%	
Line Frequency / DC Ripple	50 ... 60 Hz / ≤ 10%	
Power Consumption	AC ≤ 2 VA; DC ≤ 2 W	
Output		
Type	Electromechanical relay	
Form	SPDT or DPDT	
Rating	10 A resistive at 120/240 V AC & 30 V DC; 1/3 hp at 230 V AC	
Life	Mechanical -- 1 x10^7; Electrical -- 1 x 10^5	
Max. Switching Voltage	250 V AC	
Relay LED Indicator	Red; ON when output relay energizes	
Protection		
Insulation Resistance	≥ 100 M	
Polarity	DC units are reverse polarity protected	
Isolation Voltage	≥ 1500 V RMS input to output	
Mechanical		
Mounting	Plug-in socket	
Package	3.2 x 2.4 x 1.8 in. (81.3 x 60.7 x 45.2 mm)	
Termination	Octal plug (8 Pin), magnal plug (11 Pin)	
Environmental		
Operating Temperature	-20°C ... +60°C	
Storage Temperature	-30°C ... +85°C	
Weight	≅ 6 oz (170 g)	

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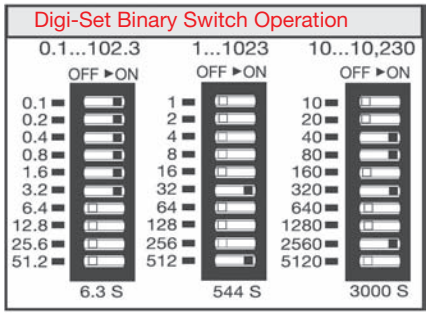
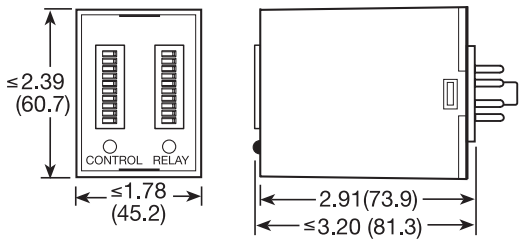


Add value of switches in ON position for total time delay.

Mechanical View



Inches (Millimeters)