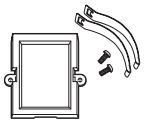
Delay On Make (Operate)
TDML, TDM, TDMH Series
Time Delay Relay

- Switch Settable Time Delay
- Three Time Ranges from 100 ms ... 10,230 s
- +/-0.1% Repeat Accuracy
- +/-2% Setting Accuracy
- DPDT, 10 A Output Contacts
- LED Indication

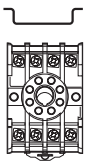
Approvals: **

** 8 pin models used in combination with P1011-6 socket only.

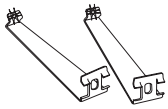
Accessories



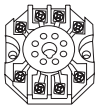
Panel mount kit
P/N: **BZ1**



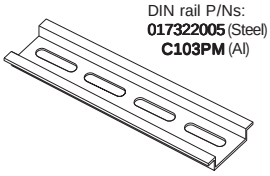
Octal
8 pin socket
P/N: **NDS-8**



Hold down clips
P/N: **PSC8**



Octal Socket
for UL Listing
P/N: **P1011-6**



DIN rail P/Ns:
017322005 (Steel)
C103PM (Al)

See accessory pages for specifications.

Description

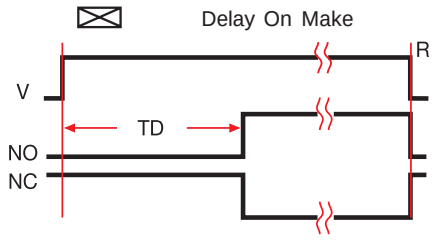
The TDM Series is a delay on make timer that combines accurate digital circuitry with isolated DPDT relay contacts in an industry standard 8 pin plug-in package. DIP switch adjustment allows precise selection of the time delay over the full time delay range. The TDM Series is the product of choice for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

Operation

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.

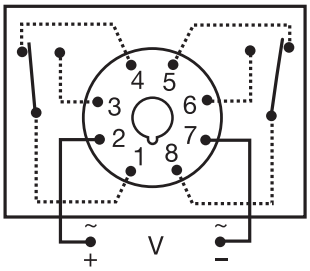
Reset: Removing input voltage resets the time delay and output.

Function



V = Voltage TD = Time Delay R = Reset
NO = Normally Open NC = Normally Closed
—≠— = Undefined time

Connection



Relay contacts are isolated. Dashed lines are internal connections.

Ordering Table

X
Series/Time Range
- **TDML** - 0.1 ... 102.3 s in 0.1 s increments
- **TDM** - 1 ... 1023 s in 1 s increments
- **TDMH** - 10 ... 10,230 s in 10 s increments

X
Input
- **12D** - 12 V DC
- **24A** - 24 V AC
- **24D** - 24 V DC/28 V DC
- **110D** - 110 V DC
- **120A** - 120 V AC
- **230A** - 230 V AC

X
LED Indication
- **L**

Example P/N: TDM120AL

TDM02B01 12.22.04

Delay On Make (Operate)
TDML, TDM, TDMH Series
Time Delay Relay

Technical Data

Time Delay	
Type	Digital integrated 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
Repeat Accuracy	+/-0.1% or 20 ms, whichever is greater
Setting Accuracy	+/-2% or 50 ms, whichever is greater
Reset Time	≤ 50 ms
Recycle Time	During Timing -- TDMH: ≤ 500 ms TDM, TDML: ≤ 300 ms
Time Delay vs. Temperature & Voltage	+/-2%
Indicator	LED glows during timing; relay is de-energized
Input	
Voltage	12, 24, or 110 V DC; 24, 120, or 230 V AC
Tolerance 12 V DC & 24 V DC/AC	-15% ... +20%
110 V AC/DC ... 230 V AC	-20% ... +10%
Frequency	50 ... 60 Hz
Power Consumption	≤ 2.25 W
Output	
Type	Electromechanical relay
Form	Double pole double throw (DPDT)
Rating	10 A resistive at 120/240 V AC & 28 V DC; 1/3 hp at 120/240 V AC
Life	Mechanical -- 1 x10^7 Electrical -- 1 x 10^6
Protection	
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	Standard octal plug (8 Pin)
Environmental	
Operating Temperature	-20°C ... +65°C
Storage Temperature	-30°C ... +85°C
Weight	≅ 6 oz (170 g)

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

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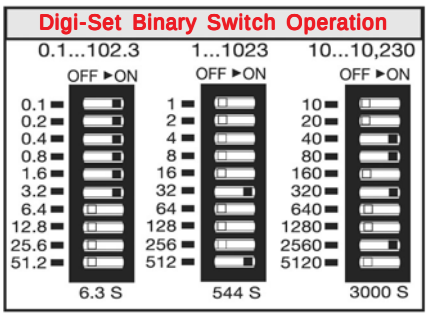
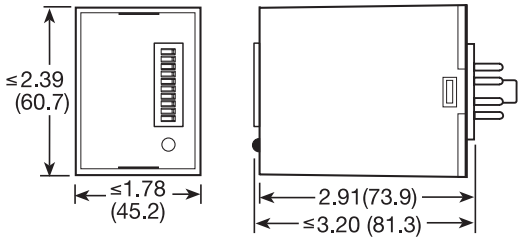


Mechanical View



Inches (Millimeters)

TDM02B01 12.22.04