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

TEN YEAR 10 WARRANTY

- Digital Integrated Circuitry
- Switch Setable Time Delay
- Three Time Ranges from 100 ms ... Over 2.8 h
- +/-0.1% Repeat Accuracy
- +/-2% Setting Accuracy
- DPDT, 10 A Output Contacts
- LED Indication

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.

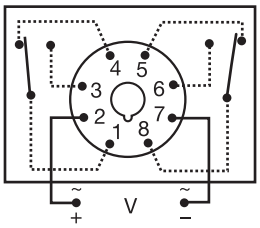
Operation

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 is energized and remains energized until input voltage is removed.

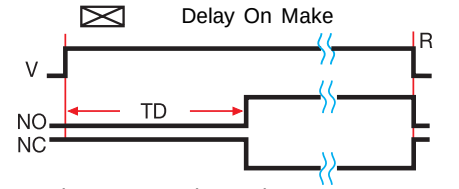
Reset: Removing input voltage resets the time delay and output.

■ Approvals: **

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



Relay contacts are isolated. Dashed lines are internal connections.



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

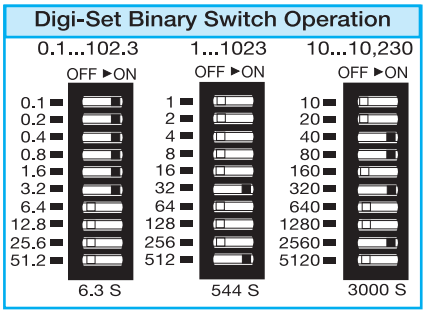
Ordering Table

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

Example P/N: **TDM120AL**

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

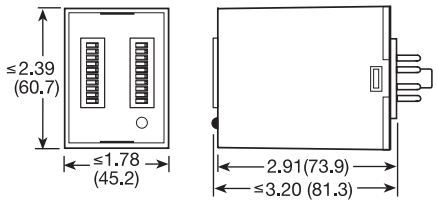
X **LED Indication**
- **L**



Technical Data

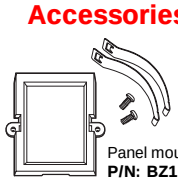
Time Delay		
Type		Digital integrated circuitry
Range*		0.1 ... 102.3 s adj. in 0.1 s increments 1 ... 1023 s adj. in 1 s increments 10 ... 10,230 s adj. in 10 s increments
Repeat Accuracy		+/-0.1% or +/-8.3 ms, whichever is greater (no first shot effect)
Setting Accuracy		+/-2% or +/-50 ms, whichever 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
Input		
Voltage		12, 24, 120, or 230 V
Tolerance	12 V DC & 24 V DC/AC	-15% ... +20%
	110 ... 230 V AC/DC	-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 240 V AC
Life		Mechanical -- 1 x10^7 Full Load -- 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.

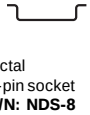


Inches (Millimeters)

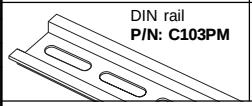
Accessories



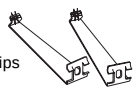
Panel mount kit
P/N: BZ1



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



DIN rail
P/N: C103PM



Hold down clips
P/N: PSC8

See accessory pages at the end of this section.