

Delay On Make (Operate) THDM Digi-Power Timing Module



- High Load Current Capacity, Solid State Output
- Simple-to-use Two Terminal Series Connection
- +/-0.5% Repeat Accuracy
- Fixed or Adjustable Delays From 1 s ... 1000 m
- Good Repeat Accuracy, +/-0.5%, and Stability

Description

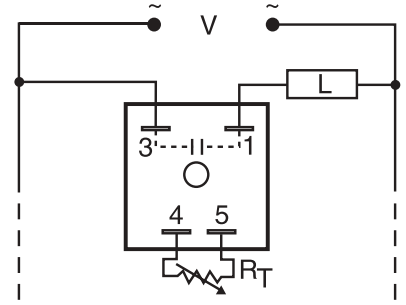
The THDM Series is a high power solid state timer that has only two terminals for series connection with the load. This is accomplished by utilizing a small portion of the AC sine wave, which provides sufficient voltage for circuit operation. A cost effective approach for driving larger loads such as motors, electric heating elements, and lamps.

Operation

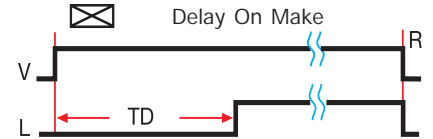
Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output is energized and remains energized until input voltage is removed.

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

■ Approvals:



Load may be connected to terminal 3 or 1. R_T is used when external adjustment is ordered.



V = Voltage L = Load R = Reset
TD = Time Delay = Undefined time

Ordering Table

THDM Series	X Input	X Adjustment	X Time Delay *	X Output Rating
	-2 - 24 V AC	-1 - Fixed	-1 - 1.0 ... 100 s	-A - 6 A
	-4 - 120 V AC	-2 - External Adjust	-2 - 10 ... 1000 s	-B - 10 A
	-6 - 230 V AC		-3 - 0.1 ... 10 m	-C - 20 A
			-4 - 1 ... 100 m	
			-5 - 10 ... 1000 m	

Example P/N: THDM621B Fixed - THDM2110MC

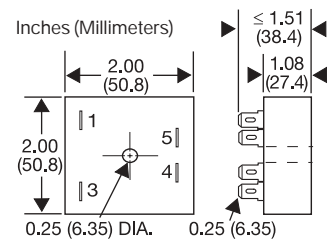
*If Fixed Delay is selected, insert delay [1.0...1000] followed by (S) sec. or [0.1 ... 1000] (M) min.

Technical Data

Time Delay	
Type	Digital integrated circuitry
Range	1 s ... 1000 m in 5 adjustable ranges or fixed
Repeat Accuracy	+/-0.5% under fixed conditions
Tolerance (Factory Calibration)	+/-10%
Recycle Time	During timing--≤150 ms; After timing--≤350 ms
Time Delay vs. Temperature & Voltage	+/-2%
Input	
Voltage	24, 120, or 230 V AC
Tolerance	+/-20%
Line Frequency	50 ... 60 Hz
Output	
Type	Solid state
Form	Normally Open, open during timing
Rating	Output Steady State Inrush**
	A 6 A 60 A
	B 10 A 100 A
	C 20 A 200 A
Effective Voltage Drop (V Line - V Load)	Input Effective Drop
	24 V AC ≤3 V
	120 V AC ≤3 V
	230 V AC ≤5 V
Minimum Load Current	100 mA
Protection	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
Mechanical	
Mounting **	Surface mount with one #10 (M5 x 0.8) screw
Termination	0.25 in. (6.35 mm) male quick connect terminals
Environmental	
Operating/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 3.9 oz (111 g)

Desired Time Delay*					R _T Megohm
Seconds		Minutes			
1	2	3	4	5	
1	10	0.1	1	10	0.0
10	100	1	10	100	0.5
20	200	2	20	200	1.0
30	300	3	30	300	1.5
40	400	4	40	400	2.0
50	500	5	50	500	2.5
60	600	6	60	600	3.0
70	700	7	70	700	3.5
80	800	8	80	800	4.0
90	900	9	90	900	4.5
100	1000	10	100	1000	5.0

* When selecting an external R_T add at least 20% for tolerance of unit and the R_T .

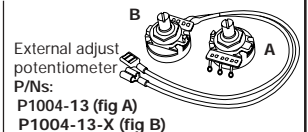


Accessories

Female quick connect



P/N: P1015-64 (AWG 14/16)



External adjust potentiometer
P/Ns: P1004-13 (fig A) P1004-13-X (fig B)

Quick connect to screw adaptor
P/N: P1015-18



Plug-on adjustment module
P/N: VTP(X)(X)



Versa-knob
P/N: P0700-7



See accessory pages at the end of this section.

**Must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16 ms.

Time Delay	VTP P/N
1 - 1 ... 100 s	VTP5G
2 - 10 ... 1000 s	VTP5K
3 - 0.1 ... 10 m	VTP5N
4 - 1 ... 100 m	VTP5P
5 - 10 ... 1000 m	VTP5R