

The THDM Series is a high power solid-state delay-on-make timer that is connected in series with the load. The THDM eliminates the need for a timer and a separate solid-state relay. A cost effective approach for controlling larger loads, such as motors, electric heating elements, and lamps. When mounted on a metal surface, it can switch loads up to 20A steady, 200A inrush.

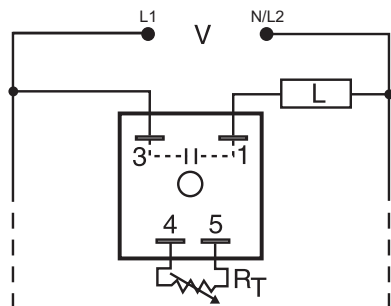
Operation (Delay-on-Make):

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.

For more information see: Appendix A, pages 156-164 for function descriptions and diagrams.

Appendix B, page 165, Figure 4 for dimensional drawing.

Connection:



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

R _T Selection Chart					
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.

Features:

- High load currents up to 20A, 200A inrush
 - Simple-to-use two terminal series connection
 - ± 0.5% repeat accuracy
 - Fixed or adjustable delays from 1s - 1000m
 - ± 10% factory calibration
 - 24, 120, or 230VAC
 - Metallized mounting surface for heat transfer
 - Solid state & encapsulated
- Approvals:

Auxiliary Products:

- **External adjust potentiometer:**
P/N: P1004-13
P/N: P1004-13-X
- **Female quick connect:**
P/N: P1015-13 (AWG 10/12)
P/N: P1015-64 (AWG 14/16)
- **Quick connect to screw adaptor:**
P/N: P1015-18
- **Versa-knob:** P/N: P0700-7
- **Plug-on adjustment module:**
P/N: VTP(X)(X)

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

Selection Table for VTP Plug-on Adjustment Accessory.

Available Models:

There are no part numbers currently active. Please call Technical Support with your requirements.

Order Table:

THDM	X	X	X	X
	Input Voltage	Adjustment	Time Delay*	Output Rating
	2 - 24VAC	1 - Fixed	1 - 1 - 100s	A - 6A
	4 - 120VAC	2 - External adjust	2 - 10 - 1000s	B - 10A
	6 - 230VAC		3 - 0.1 - 10m	C - 20A
			4 - 1 - 100m	
			5 - 10 - 1000m	

*If fixed delay is selected, insert delay (0.1 - 1000) followed by (S) sec. or (1 - 100) (M) min.

Specifications

Time Delay	Digital intergrated circuitry			Minimum Load Current	100mA
Type	1s - 1000m in 5 adjustable ranges or fixed			Effective Voltage Drop (V Line - V Load)	Input Effective Drop
Range	±0.5% or 20ms, whichever is greater				24VAC ≤ 3V
Repeat Accuracy	≤ ± 10%				120VAC ≤ 3V
Tolerance (Factory Calibration)	After timing - ≤ 350ms;				230VAC ≤ 5V
Recycle Time	During timing - ≤ 150ms			Protection	
Time Delay vs Temp. & Voltage	≤ ± 2%			Circuitry	Encapsulated
Input	24, 120, or 230VAC			Dielectric Breakdown	≥ 2000V RMS terminals to mounting surface
Voltage	± 20%			Insulation Resistance	≥ 100 MΩ
Tolerance	50/60 Hz			Mechanical	
AC Line Frequency	NO, open during timing			Mounting**	Surface mount with one #10 (M5 x 0.8) screw
Output	Output Steady State Inrush**			Dimensions	2 x 2 x 1.51 in. (50.8 x 50.8 x 38.4 mm)
Type	A	6A	60A	Termination	0.25 in. (6.35 mm) male quick connect terminals
Form	B	10A	100A	Environmental	
Maximum Load Currents	C	20A	200A	Operating/Storage Temperature	-40° to 60°C / -40° to 85°C
				Humidity	95% relative, non-condensing
				Weight	≈ 3.9 oz (111 g)

**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 16ms.