

# Interval (Single Pulse On Operate) THD2 Digi-Power Timing Module



TEN YEAR WARRANTY

**Obsolete Specification**  
Redesigned product is available  
see new specifications at:  
[www.ssac.com/standard/standard.htm](http://www.ssac.com/standard/standard.htm)

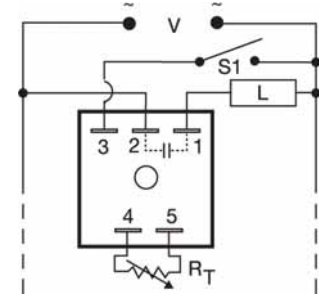
- High Inrush Currents to 20 A, 200 A Inrush
- Excellent Performance due to Digital Circuitry
- Good Stability over Voltage and Temperature
- Fixed or Adjustable Delays From 0.1 s ... 1000 m
- Encapsulated, Totally Solid State

**Description**  
Digi-Power solid state timers combine stable C/MOS digital circuitry with high current solid state outputs of 6, 10, or 20 A. The small package with metallized mounting ensures efficient operation with a high dielectric. The THD2 Series is ideal for replacing those troublesome mechanical type timers that arc, wear, and eventually fail.

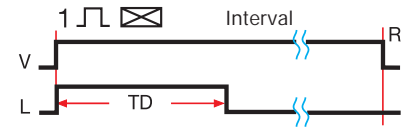
**Operation**  
Upon application of input voltage, the time delay begins. The output is energized during the time delay. At the end of the time delay, the output is de-energized and remains de-energized until input voltage is removed.

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

Approvals:



RT is used when external adjustment is ordered.



V = Voltage L = Load S1 = Initiate Switch  
TD = Time Delay R = Reset  
— = Undefined time

## Ordering Table

THD2 Series	Output Rating	Input	Adjustment	Time Delay *
X	X	X	X	X
-A - 6 A	-2 - 24 V AC	-1 - Fixed	-0 - 0.1 ... 10 s	*If Fixed Delay is selected, insert delay [0.1...1000] (S) secs. or (M) mins.
-B - 10 A	-4 - 120 V AC	-2 - External Adjust	-1 - 1.0 ... 100 s	
-C - 20 A	-6 - 230 V AC		-2 - 10 ... 1000 s	
			-3 - 0.1 ... 10 m	
			-4 - 1 ... 100 m	
			-5 - 10 ... 1000 m	

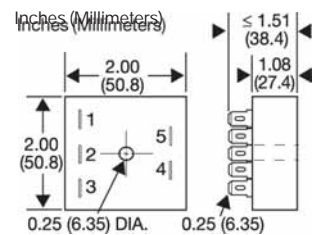
Example P/N: THD2A620 Fixed - THD2C410.1S

Desired Time Delay*						RT Megohm
Seconds			Minutes			
0	1	2	3	4	5	
0.1	1	10	0.1	1	10	0.0
1	10	100	1	10	100	0.5
2	20	200	2	20	200	1.0
3	30	300	3	30	300	1.5
4	40	400	4	40	400	2.0
5	50	500	5	50	500	2.5
6	60	600	6	60	600	3.0
7	70	700	7	70	700	3.5
8	80	800	8	80	800	4.0
9	90	900	9	90	900	4.5
10	100	1000	10	100	1000	5.0

\* When selecting an external RT add at least 11% for tolerance of unit and the RT.

## Technical Data

Time Delay	
Type	Digital integrated circuitry
Range	0.1 s ... 1000 m in 6 adjustable ranges or fixed
Repeat Accuracy	+/-0.5%
Tolerance (Factory Calibration)	+/-1%
Reset Time	≤ 150 ms
Recycle Time	150 ms
Initiate Time	100 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, closed during timing
Rating	Output Steady State Inrush**
	A 6 A 60 A
	B 10 A 100 A
	C 20 A 200 A
Minimum Load Current	100 mA
Voltage Drop	≅ 2.5 V at rated current
Leakage	8.6 mA at 230 V AC; 4.5 mA at 120 V AC; 0.9 mA at 24 V AC
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
Operating/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 3.9 oz (111 g)



## Accessories

<p>Female quick connect</p> <p>P/N: P1015-64 (AWG 14/16)</p>	<p>External adjust potentiometer</p> <p>P/Ns: P1004-13 (fig A) P1004-13-X (fig B)</p>
<p>Quick connect to screw adaptor</p> <p>P/N: P1015-18</p>	<p>Plug-on adjustment module</p> <p>P/N: VTP(X)(X)</p>
<p>Versa-knob</p> <p>P/N: P0700-7</p>	

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
0 - 0.1 ... 10 s	VTP5C
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