

Delay On Make (Operate) TS1 Versa-Timer Timing Module

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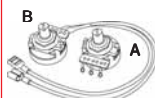


10 YEAR WARRANTY

- Two Terminal Series Connection with Load
- 5 mA ... 1 A Load Currents
- Totally Solid State – Encapsulated
- +/-2% Repeat Accuracy
- Fixed or Adjustable Delays From 50 ms ... 10 m in 8 Ranges

Approvals:

Accessories



External adjust potentiometer
P/N:
P1004-XX (fig A)
P1004-XX-X (fig B)



Mounting bracket
P/N: **P1023-6**



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

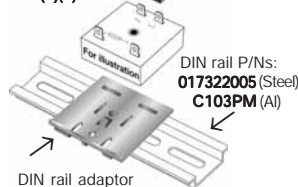


Quick connect to screw adaptor
P/N: **P1015-18**



Versa-knob
P/N: **P0700-7**

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



See accessory pages for specifications.

Description

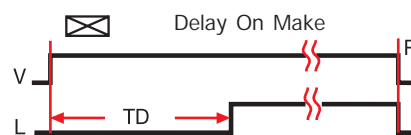
Versa-Timer offers proven reliability and performance with years of use in OEM equipment and commercial applications. This encapsulated general use timing module is capable of controlling load currents ranging from 5 mA to 1 A. May be connected in series with contactors, relays, valves, solenoids, small motors, 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 energizes and remains energized until input voltage is removed.

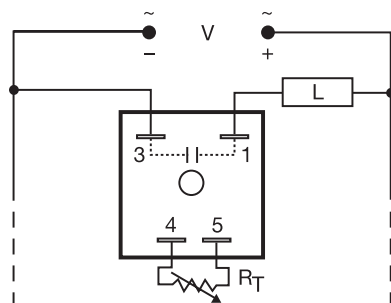
Reset: Removing input voltage resets the time delay and output.

Function



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

Connection



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

Ordering Table

TS1
Series

X

Input

- 1** - 12 V DC
- 2** - 24 V AC
- 3** - 24 V DC
- 4** - 120 V DC
- 5** - 120 V DC
- 6** - 230 V AC

X

Adjustment
-1 - Fixed
-2 - External Adjust

X

Time Delay*

- 1** - 0.05 ... 1 s
- 2** - 0.5 ... 20 s
- 3** - 2 ... 60 s
- 4** - 5 ... 120 s

All Other Voltages

- 0.05 ... 3 s
- 0.5 ... 60 s
- 2 ... 180 s
- 5 ... 600 s

*If Fixed Delay is selected, insert delay
[0.05 ... 120] (12V DC) or [0.05 ... 600]
(other voltages) in secs.

Example P/N: **TS1122** Fixed – **TS1411.5**

Delay On Make (Operate)

TS1 Versa-Timer

Timing Module

Technical Data

Time Delay		
Type		Analog circuitry
Range	12 V DC	0.05 ... 120 s in 4 adjustable ranges or fixed (1 MΩ max. R_T)
	Other Voltages	0.05 ... 600 s in 4 adjustable ranges or fixed
Repeat Accuracy		+/-2% or 20 ms, whichever is greater
Tolerance (Factory Calibration)		≤ +/-10%
Recycle Time		After timing – ≤ 16 ms
		During timing – 0.1% of time delay or 75 ms, whichever is greater
Time Delay vs. Temperature & Voltage		≤ +/-10%
Input		
Voltage		12, 24 or 120 V DC; 24, 120, or 230 V AC
Tolerance		+/-20%
Line Frequency		50 ... 60 Hz
Output		
Type		Solid state
Form		Normally Open, open during timing
Maximum Load Current		1 A steady state, 10 A inrush at 60°C
Minimum Holding Current		5 mA
Voltage Drop		≅ 2.5 V at 1 A
Protection		
Circuitry		Encapsulated
Dielectric Breakdown		≥ 2000 V RMS terminals to mounting surface
Insulation Resistance		≥ 100 MΩ
Polarity		DC units are reverse polarity protected
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 ... +80°C / -40°C ... +85°C
Humidity		95% relative, non-condensing
Weight		≅ 2.4 oz (68 g)

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R _T Selection Chart				
Desired Time Delay*				R _T
Seconds				
1	2	3	4	Megohm
0.05	0.5	2	5	0.0
0.5	10	30	60	0.5
1.0	20	60	120	1.0
▼ 24VDC or AC ONLY† ▼				
1.5	30	90	180	1.5
2.0	40	120	240	2.0
2.5	50	150	300	2.5
3.0	60	180	360	3.0
			420	3.5
			480	4.0
			540	4.5
			600	5.0

* When selecting an external R_T add at least 20% for tolerance of unit and the R_T .
† 1 Megohm max for 12 VDC Units

Mechanical View

