Delay On Make - Normally Closed
TS4 Series
Versa Timing Module

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- Load Energized Prior To and During Time Delay
- Fixed or Adjustable Delays
- 0.05 ... 600 s in 4 Ranges
- +/-2% Repeat Accuracy
- 24, 120, or 230 V AC
- 1A Solid State Output
- Encapsulated

Approvals:

Accessories

External adjust potentiometer P/Ns:
P1004-XX (fig A)
P1004-XX-X (fig B)
(See R_T Table)

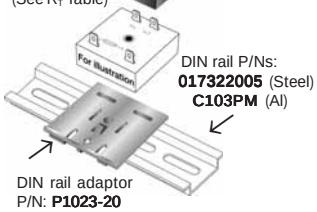
Mounting bracket P/N: **P1023-6**

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 R_T Table)



DIN rail P/Ns:
017322005 (Steel)
C103PM (Al)

DIN rail adaptor P/N: **P1023-20**

See accessory pages for specifications.

Description

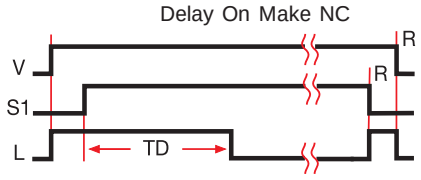
The TS4 Versa-Timer is an analog delay on make timer with a normally closed solid state output. Unlike an Interval Timer, the load is energized prior to and during the time delay period. It can be used as a faster starting Interval time delay when S1 is closed upon application of input voltage.

Operation

Upon application of input voltage, the load is energized immediately. When the initiate switch is closed, the time delay begins. At the end of the time delay, the load de-energizes.

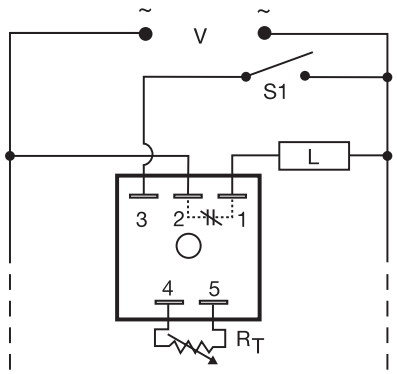
Reset: When the initiate switch is reopened, the load again energizes and the time delay is reset. Removing input voltage resets the time delay and output.

Function



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

Connection



S1 = Initiate Switch

R_T is used when external adjustment is ordered.
Dashed lines are internal connections.

R_T Selection Table			
Time Delay	VTP P/N	Fig. A P/N	Fig. B P/N
1 – 0.05 ... 3 s	VTP4B	P1004-12	P1004-12-X
2 – 0.5 ... 60 s	VTP4F	P1004-12	P1004-12-X
3 – 2 ... 180 s	VTP4J	P1004-12	P1004-12-X
4 – 5 ... 600 s	VTP5N	P1004-13	P1004-13-X

Ordering Table

TS4	X	X	X
Series	**Input**	**Adjustment**	**Time Delay***
	-2 - 24 V AC	**-1** - Fixed	**-1** - 0.05 ... 3 s
	-4 - 120 V AC	**-2** - External Adjust	**-2** - 0.5 ... 60 s
	-6 - 230 V AC		**-3** - 2 ... 180 s
			-4 - 5 ... 600 s

Example P/N: **TS4624** Fixed – **TS4410.5**

*If Fixed Delay is selected, insert delay [**0.05** ... **600**] in seconds.

TS402B01 06.29.04

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Technical Data

Time Delay	
Type	Analog circuitry
Range	0.05 ... 600 s in 4 adjustable ranges or fixed
Repeat Accuracy	+/-2% or 20 ms, whichever is greater; under fixed conditions
Tolerance (Factory Calibration)	≤ +/-10%
Time Delay vs. Temperature & Voltage	≤ +/-10%
Recycle Time	≤ 150 ms
Input	
Voltage	24, 120, or 230 V AC
Tolerance	+/-20%
Line Frequency	50 ... 60 Hz
Output	
Type	Solid state
Form	Normally Closed, closed during timing
Maximum Load Current	1 A steady state, 10 A inrush at 60°C
Voltage Drop	≅ 2.5 V at 1 A
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
Package	2 x 2 x 1.21 in. (50.8 x 50.8 x 30.7 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals
Environmental	
Operating Temperature	-40°C ... +75°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

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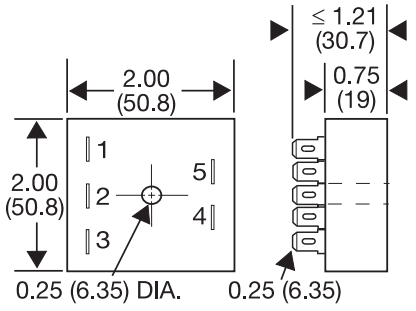
R_T Selection Chart				
Desired Time Delay* Seconds				R_T
1	2	3	4	Megohm
0.05	0.5	2	5	0.0
0.5	10	30	60	0.5
1.0	20	60	120	1.0
1.5	30	90	180	1.5
2.0	40	120	240	2.0
2.5	50	150	300	2.5
3.0	60	180	360	3.0
			420	3.5
			480	4.0
			540	4.5
			600	5.0

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

Mechanical View



Inches (Millimeters)

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