

Time Delay Relays

Dedicated - Delay-on-Make



TMV8000 / TSU2000 SERIES

Universal Voltage Delay-on-Make Timer



TMV8000



TSU2000

Description

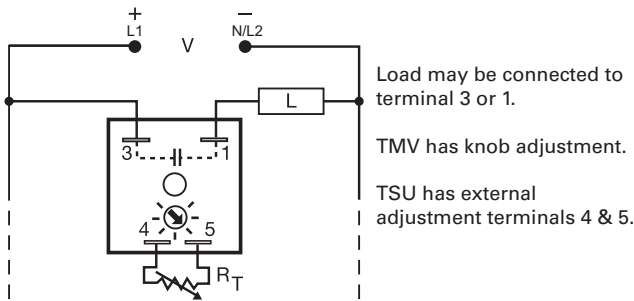
The TMV and TSU Series are universal voltage delay-on-make timers. Two models cover all the popular voltages and time delays. Available with knob or external adjust time delay. Its simple two terminals can easily be connected in series with a relay coil, contactor coil, solenoid, lamps, small motor, etc., to delay their energization, prevent short cycling or to sequence on various loads.

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 energizes and remains energized until input voltage is removed.

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






Wiring Diagram



Features & Benefits

FEATURES	BENEFITS
Universal AC/DC operating voltage	Provides flexibility for use in all systems
Totally solid-state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
Two terminal series connection with the load	Provides quick and easy installation for new or existing systems
1A steady, 10A inrush solid-state output	Provides 100 million operations in typical conditions

Accessories

- 
P1004-95, P1004-95-X Versa-Pot
 Panel mountable, industrial potentiometer recommended for remote time delay adjustment.
- 
P1023-6 Mounting bracket
 The 90° orientation of mounting slots makes installation/removal of modules quick and easy.
- 
P0700-7 Versa-Knob
 Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.
- 
P1015-64 (AWG 14/16) Female Quick Connect
 These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.
- 
P1015-18 Quick Connect to Screw Adapter
 Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

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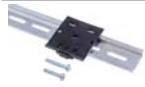


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Accessories



C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



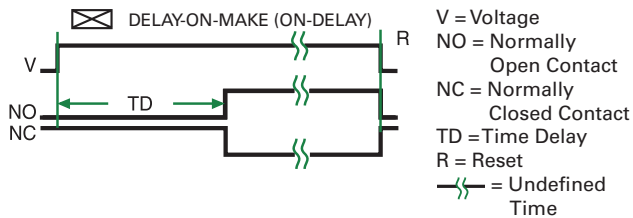
P1023-20 DIN Rail Adapter
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

Selection Guide

R _T Selection Chart	
Time Delay*	
Seconds	R _T
	Megohm
5	0.0
85	0.5
163	1.0
240	1.5
320	2.0
400	2.5
480	3.0

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

Function Diagram



Specifications

Time Delay

Type

Analog circuitry
5 - 480s (TSU2000)
0.1 - 8m (TMV8000)

Range

±2%

Repeat Accuracy

Tolerance

≤ ±10%

(Factory Calibration)

Reset Time

≤ 100ms

Input

Voltage

24 to 240VAC/DC ±20%

AC Line Frequency

50/60 Hz

Output

Type

Solid State

Form

NO, open during timing

Maximum Load Current

1A steady state, 10A inrush at 55°C

Minimum Holding Current

≤ 40mA

Voltage Drop

≅ 2.5V @ 1A

Protection

Circuitry

Encapsulated

Dielectric Breakdown

≥ 2000V RMS terminals to mounting surface

Insulation Resistance

≥ 100 MΩ

Mechanical

Mounting

Surface mount with one #10 (M5 x 0.8) screw

Dimensions

H 50.8 mm (2"); **W** 50.8 mm (2");

D 30.7 mm (1.21")

Termination

0.25 in. (6.35 mm) male quick connect

Environmental

Operating/Storage

Temperature

-20° to 70°C / -30° to 85°C

Humidity

95% relative, non-condensing

Weight

≅ 2.4 oz (68 g)