

TMV8000 / TSU2000 SERIES

Universal Voltage Delay-on-Make Timer







TSU2000

Description

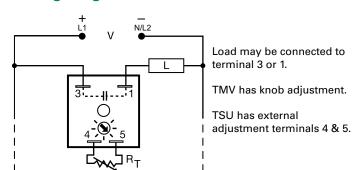
The TMV and TSU Series are universal voltage delay-on-make timers. Two models cover all the popular voltages and time delays. Available with knob or external adjust time delay. Its simple two terminals can easily be connected in series with a relay coil, contactor coil, solenoid, lamps, small motor,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

Ordering Information

MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY
TMV8000	24 to 240VAC/DC	Onboard	0.1 - 8m
TSU2000	24 to 240VAC/DC	External	5 - 480s

If you don't find the part you need, call us for a custom product 800-843-8848



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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

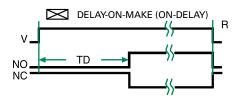
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

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



NO = Normally **Open Contact** NC = Normally**Closed Contact** TD = Time Delay R = Reset - = Undefined

Time

V = Voltage

Specifications

Time Delay

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

Repeat Accuracy ±2%

Tolerance

(Factory Calibration) $\leq \pm 10\%$ **Reset Time** ≤ 100ms

Input

Voltage **AC Line Frequency**

Output

Type

Form

Maximum Load Current Minimum Holding Current

Voltage Drop Protection

Circuitry

Dielectric Breakdown Insulation Resistance

Mechanical

Mounting

Dimensions

Termination

terminals

Environmental Operating/Storage

Temperature Humidity Weight

24 to 240VAC/DC ±20%

50/60 Hz

Solid State

NO, open during timing

1A steady state, 10A inrush at 55°C

 $\leq 40 mA$

 $\approx 2.5 \text{V} @ 1 \text{A}$

Encapsulated

≥ 2000V RMS terminals to mounting surface

 \geq 100 M Ω

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

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

D 30.7 mm (1.21")

0.25 in. (6.35 mm) male quick connect

-20° to 70°C / -30° to 85°C 95% relative, non-condensing

 $\approx 2.4 \text{ oz } (68 \text{ g})$

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

TMV8000 TSU2000