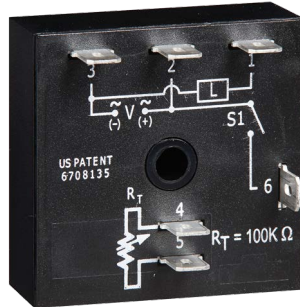
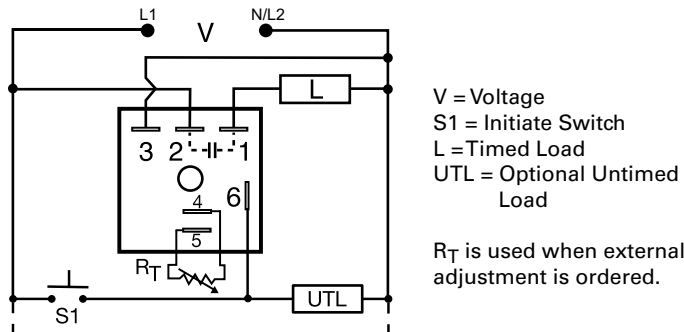


TSS SERIES



Wiring Diagram



Description

The TSS Series is a totally solid-state timing module. Its 1A rated, solid-state output provides an excellent method of time control for exposures, dispensing, or for increasing or decreasing a switch closure. Time delays from 0.05 to 600 seconds, in 4 ranges, cover 90% of all OEM applications. Factory calibration of fixed delays is $\pm 5\%$ and the repeat accuracy is $\pm 2\%$. The TSS Series can be surface mounted with a single screw, or snapped on a 35mm DIN rail using the P1023-20 accessory adaptor.

Operation (Single Shot)

Voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch, the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing has no effect on the time delay. The output will energize if the initiate switch is closed when input voltage is applied.

Reset: Reset occurs when the time delay is complete and the initiate switch opens. Loss of input voltage resets the time delay and output.

Features & Benefits


FEATURES	BENEFITS
Analog circuitry	Repeat accuracy + / - 2%, Factory calibration + / - 5%
Compact, low cost design	Allows flexibility for OEM applications
Totally solid state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
Surface or DIN rail mounting	Provides flexibility for installation


Ordering Information


MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY
TSS410.5	120VAC	Fixed	0.5s
TSS421	120VAC	External	0.05 - 3s
TSS422	120VAC	External	0.5 - 60s
TSS424	120VAC	External	5 - 600s
TSS622	230VAC	External	0.5 - 60s
TSS624	230VAC	External	5 - 600s


If desired part number is not listed, please call us to see if it is technically possible to build.

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.

TSS SERIES

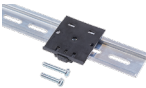
Accessories



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.



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



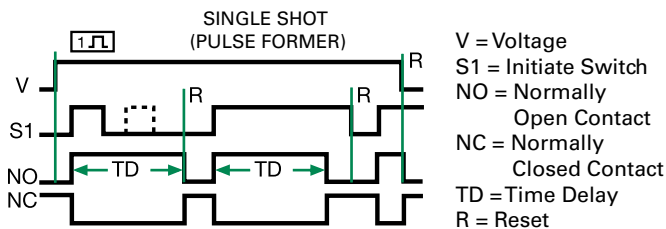
P1023-20 DIN Rail Adapter
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

Selection Guide

RT Selection Chart				
Desired Time Delay*				RT
Seconds				
1	2	3	4	Kohms
0.05	0.5	2	5	0
0.3	6	20	60	10
0.6	12	38	120	20
0.9	18	55	180	30
1.2	24	73	240	40
1.5	30	90	300	50
1.8	36	108	360	60
2.1	42	126	420	70
2.4	48	144	480	80
2.7	54	162	540	90
3.0	60	180	600	100

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

Function Diagram



Specifications

Time Delay

Range

0.05s - 600s in 4 adjustable ranges or fixed

Repeat Accuracy

±2% or 20ms, whichever is greater

Tolerance

(Factory Calibration)

≤ ±5%

Reset Time

≤ 150ms

Initiate Time

≤ 20ms

Time Delay vs Temp.

& Voltage

≤ ±10%

Input

Voltage

24, 120, or 230VAC

Tolerance

±20%

AC Line Frequency

50/60 Hz

Power Consumption

≤ 2VA

Output

Type

Solid state

Form

NO, closed during timing

Maximum Load Current

1A steady state, 10A inrush at 60°C

Off State Leakage Current

≅ 5mA @ 230VAC

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 (2.0"); **W** 50.8 mm (2.0");

D 30.7 mm (1.21")

Termination

0.25 in. (6.35 mm) male quick connect terminals

Environmental

Operating/Storage

Temperature

- 40° to 75°C / - 40° to 85°C

Humidity

95% relative, non-condensing

Weight

≅ 2.4 oz (68 g)