



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

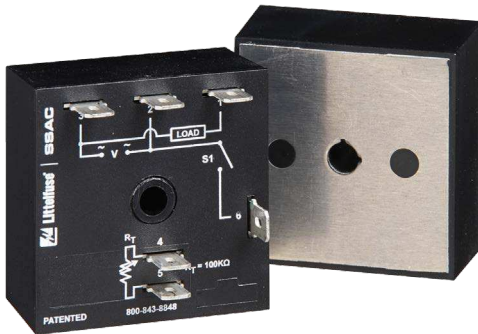
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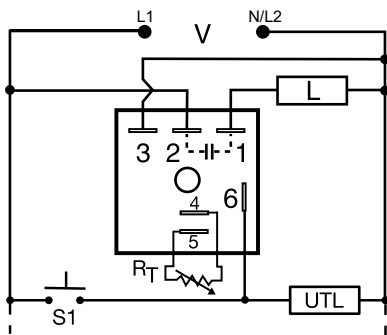
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THC / THS SERIES



Wiring Diagram



V = Voltage
S1 = Initiate Switch
L = Timed Load
UTL = Optional Untimed Load

R_T is used when external adjustment is ordered.

Description

The THC/THS Series is a solid-state relay and timer combined into one compact, easy-to-use control. When mounted to a metal surface, the THC/THS Series may be used to directly control lamp or heater loads of up to 20A steady, 200A inrush. Its single shot function can perform dispensing and pulse shaping operations. The initiate switch can be a momentary or maintained type of switch. Time delays can be selected from 0.1 - 600 seconds in 4 ranges. The THC/THS Series is used for coin vending applications where fast initiate response is required.

Operation (Single Shot)

Input voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), 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 and reduces labor and component costs |
| High load currents up to 20A, 200A inrush | Allows direct operation of motors, lamps, and heaters directly without a contactor |
| Totally solid state and encapsulated | No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity |
| Metalized mounting surface | Facilitates heat transfer in high current applications |

Ordering Information

| MODEL | INPUT VOLTAGE | ADJUSTMENT | TIME DELAY | OUTPUT RATING |
|---------|---------------|------------|------------|---------------|
| THC421C | 120VAC | External | 0.1 - 3s | 20A |
| THS422B | 120VAC | External | 0.5 - 60s | 10A |
| THS422C | 120VAC | External | 0.5 - 60s | 20A |

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

Accessories

- 
P1004-95, P1004-95-X Versa-Pot
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.
- 
P0700-7 Versa-Knob
Designed for 0.25 in. (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.
- 
P1015-13 (AWG 10/12), 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.

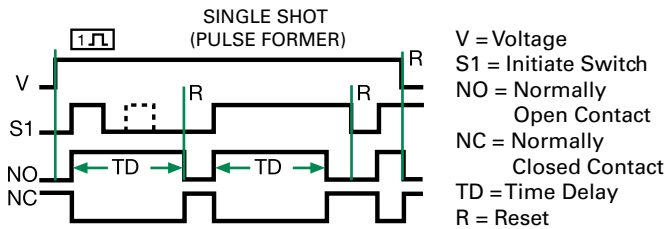
THC / THS SERIES

Selection Guide

| RT Selection Chart | | | | |
|---------------------|-----|-----|-----|-------|
| Desired Time Delay* | | | | RT |
| Seconds | | | | |
| 1 | 2 | 3 | 4 | Kohms |
| 0.1 | 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 | 0.1 - 600s in 4 adjustable ranges or fixed | | |
| Repeat Accuracy Tolerance (Factory Calibration) | ±2% or 20ms, whichever is greater | | |
| Reset Time | ≤ 150ms | | |
| Initiate Time | ≤ 20ms | | |
| Time Delay vs Temp. & Voltage | ≤ ±10% | | |
| Input Voltage | 24, 120, or 230VAC | | |
| Tolerance | ±15% | | |
| AC Line Frequency | 50/60 Hz | | |
| Power Consumption | ≤ 2VA | | |
| Output Type | Solid state | | |
| Form | NO, closed during timing | | |
| Maximum Load Currents | Output | Steady State | Inrush** |
| | A | 6A | 60A |
| | B | 10A | 100A |
| | C | 20A | 200A |
| Minimum Load Current | 100mA | | |
| Voltage Drop | ≈ 2.5V at rated current | | |
| OFF State Leakage Current | ≈ 5mA @ 230VAC | | |
| 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 38.4 mm (1.51") | | |
| Termination | 0.25 in. (6.35 mm) male quick connect terminals | | |
| Environmental Operating/Storage Temperature | -20° to 60°C / -40° to 85°C | | |
| Humidity | 95% relative, non-condensing | | |
| Weight | ≈ 3.9 oz (111 g) | | |

**Must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16ms.