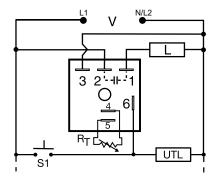
THC / THS SERIES



C **E 73** @



Wiring Diagram



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

R_T is used when external adjustment is ordered.

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

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 affect 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 flexiblility 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	

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.



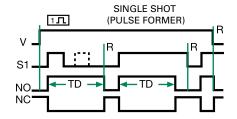
THC / THS SERIES

Selection Guide

R _T Selection Chart						
Des	B-					
	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 R_T add at least 20% for tolerance of unit and the R_T.

Function Diagram



V = Voltage S1 = Initiate Switch NO = Normally

Open Contact NC = Normally **Closed Contact** TD = Time Delay

R = Reset

Specifications

Time Delay

Range 0.1 - 600s in 4 adjustable ranges or fixed **Repeat Accuracy** ±2% or 20ms, whichever is greater

Tolerance

(Factory Calibration) $\leq \pm 5\%$ **Reset Time** ≤ 150ms **Initiate Time** ≤ 20ms Time Delay vs Temp.

& Voltage $\leq \pm 10\%$

Input

24, 120, or 230VAC Voltage

Tolerance ±15% **AC Line Frequency** 50/60 Hz **Power Consumption** $\leq 2VA$

Output

Type Solid state

Form	NO, closed during timing		
Maximum Load Currents	Output	Steady State	Inrush**
	A	6A	60A
	В	10A	100A
	C	20A	200A

100mA **Minimum Load Current** ≈ 2.5V at rated current

Voltage Drop

OFF State Leakage Current ≈ 5mA @ 230VAC

Protection

Circuitry Encapsulated

Dielectric Breakdown

 \geq 2000V RMS terminals to mounting surface ≥100 MΩ **Insulation Resistance**

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 $\approx 3.9 \text{ oz } (111 \text{ g})$

^{**}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.