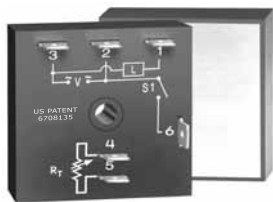


Single Shot (Pulse Former)

THC & THS Series

Power Timing Module

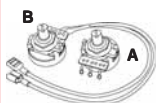


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- High Load Current Capacity, up to 20 A, 200 A Inrush
- Momentary or Maintained Initiate Switch
- +/-2% Repeat Accuracy
- +/-5% Factory Calibration
- Fixed or Adjustable Delays From 0.1 ... 600 s in 4 Ranges
- Metallized Mounting Surface for Efficient Heat Transfer

Approvals:

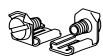
Accessories



External adjust potentiometer
P/Ns:
P1004-95 (fig A)
P1004-95-X (fig B)



Female quick connect
P/Ns:
P1015-64 (AWG 14/16)
P1015-13 (AWG 10/12)



Quick connect to screw adaptor
P/N: **P1015-18**



Versa-knob
P/N: **P0700-7**

See accessory pages for specifications.

Description

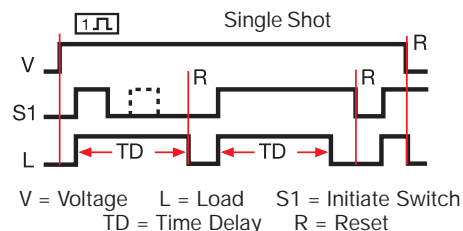
The TH series is a solid state relay and timer combined into one compact, easy-to-use control. When mounted to a metal surface, the TH Series may be used to directly control lamp or heater loads of up to 20 Amps steady 200 Amps inrush. Its single shot function can perform dispensing and pulse shaping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

Operation

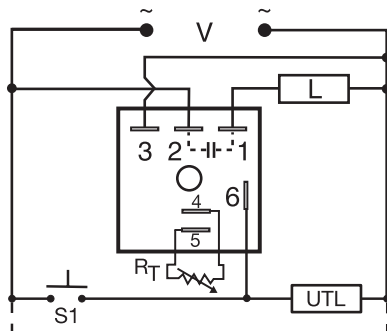
Input voltage must be applied before and during timing. Upon momentary or maintained closure of the initiate switch (leading edge triggered), the output energizes for a measured interval of time. At the end of the delay, the output de-energizes. Opening or reclosing the initiate switch during timing 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.

Function



Connection



R_T is used when external adjustment is ordered.

Dashed lines are internal connections.

S1 = Initiate Switch L = Timed Load

UTL = Optional Untimed Load

Ordering Table

THC/THS Series

X
Input
-2 - 24 V AC
-4 - 120 V AC
-6 - 230 V AC

X
Adjustment
-1 - Fixed
-2 - External Adjust
-3 - Onboard Adjust

X
Time Delay *
-1 - 0.1 ... 3 s
-2 - 0.5 ... 60 s
-3 - 2 ... 180 s
-4 - 5 ... 600 s

X
Output Rating
-A - 6 A
-B - 10 A
-C - 20 A

Example P/N: **THC432C** Fixed - **THC612A**
THS421B Fixed - **THS410.5C**

*If Fixed Delay is selected, insert delay [0.1...600] in seconds.

Single Shot (Pulse Former)

THC & THS Series

Power Timing Module

Technical Data

Time Delay													
Range	0.1 ... 600 s in 4 adjustable ranges or fixed												
Repeat Accuracy	+/-2% or 20 ms, whichever is greater												
Tolerance (Factory Calibration)	≤ +/- 5%												
Reset Time	≤ 150 ms												
Initiate Time	≤ 20 ms												
Time Delay vs. Temperature & Voltage	≤ +/-10%												
Input													
Voltage	24, 120, or 230 V AC												
Tolerance	+/-15%												
Line Frequency	50 ... 60 Hz												
Power Consumption	≤ 2 VA												
Output													
Type	Solid state												
Form	Normally Open, closed during timing												
Maximum Load Currents	<table border="1"> <tr> <td>Output</td> <td>Steady State</td> <td>Inrush**</td> </tr> <tr> <td>A</td> <td>6 A</td> <td>60 A</td> </tr> <tr> <td>B</td> <td>10 A</td> <td>100 A</td> </tr> <tr> <td>C</td> <td>20 A</td> <td>200 A</td> </tr> </table>	Output	Steady State	Inrush**	A	6 A	60 A	B	10 A	100 A	C	20 A	200 A
Output	Steady State	Inrush**											
A	6 A	60 A											
B	10 A	100 A											
C	20 A	200 A											
Minimum Load Current	100 mA												
Voltage Drop	≅ 2.5 V at rated current												
OFF State Leakage Current	≅ 5 mA at 230 V AC												
Protection													
Circuitry	Encapsulated												
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface												
Insulation Resistance	≥100 MΩ												
Mechanical													
Mounting **	Surface mount with one #10 (M5 x 0.8) screw												
Package	2 x 2 x 1.51 in. (50.8 x 50.8 x 38.4 mm)												
Termination	0.25 in. (6.35 mm) male quick connect terminals												
Environmental													
Operating Temperature	-20°C ... +60°C												
Storage Temperature	-40°C ... +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 16 ms.

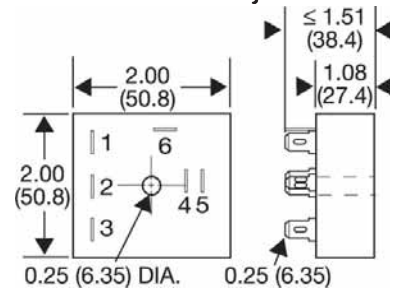
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R _T Selection Chart				
Desired Time Delay*				R _T
Seconds				
1	2	3	4	Kohms
0.1	0.5	2	5	0
0.3	6	20	60	10
0.6	12	38	120	20
0.9	18	55	180	30
1.2	24	73	240	40
1.5	30	90	300	50
1.8	36	108	360	60
2.1	42	126	420	70
2.4	48	144	480	80
2.7	54	162	540	90
3.0	60	180	600	100

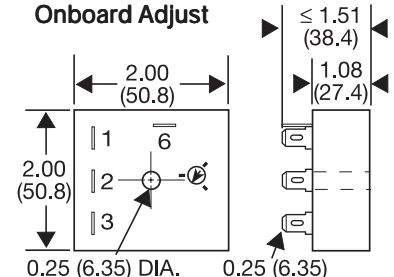
* When selecting an external R_T add at least 20% for tolerance of unit and the R_T.

Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)

THSGen 07.2804