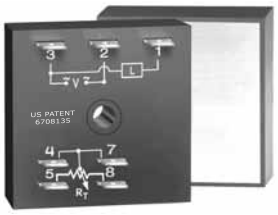
Percentage Timing
PTHF Series
Power Timing Module



- ON/OFF Recycling Percentage Control
- Controls Loads up to 20 A, 200 A Inrush
- Fixed Cycle Period 10 ... 1000 s
- +/-0.5% Repeat Accuracy
- +/-5% Factory Calibration
- Totally Solid State & Encapsulated

Approvals:

5

Description

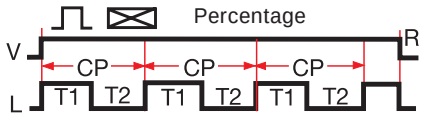
The PTHF Series can be used for a variety of applications from chemical metering, to temperature regulating, to energy management. The infinite adjustability from 1 to 99% provides accurate percentage ON control over a wide factory fixed cycle period. When mounted on a metal surface, it can be used to drive solenoids, contactors, relays, or lamps, up to 20 Amps steady, 200 Amps inrush.

Operation

Upon application of input voltage, the output energizes and the T1 ON time begins. At the end of the ON time, the output de-energizes and the T2 OFF time begins. At the end of the OFF time, the output energizes and the cycle repeats as long as input voltage is applied. Increasing the ON time decreases the OFF time. The total cycle period is equal to the ON time plus the OFF time. The total cycle period is factory fixed. ON time range is 1 to 99 percent of cycle period.

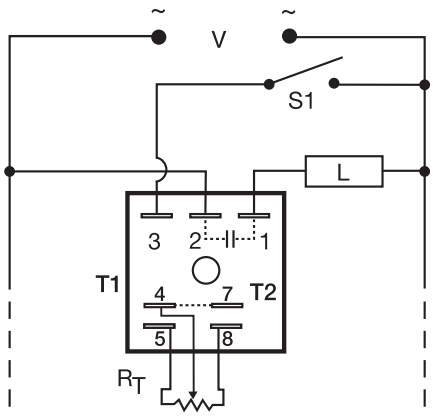
Reset: Removing input voltage resets the output and time delays, and returns the sequence to the T1 ON time.

Function



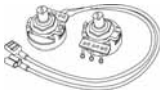
V = Voltage L = Load CP = Cycle Period
R = Reset T1 = ON Time T2 = OFF Time

Connection



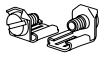
Dashed lines are internal connections.
R_T = 100 KΩ S1 = Optional Low Current Initiate Switch
T1 = ON Time T2 = OFF Time

Accessories



External adjust potentiometer
P/N: **P1004-95**

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.

Ordering Table

PTHF	X	X	X
Series	**Input**	**Fixed Cycle Period**	**Output Rating**
	2 - 24 V AC	Specify **10** ... **1000** s	**A** - 6
	4 - 120 V AC	as the total cycle period.	**B** - 10
	6 - 230 V AC		**C** - 20
			D - 1

Example P/N: PTHF210A, PTHF6120D

PTHFGen 07.29.04

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Technical Data

Time Delay				
Range	Adjustable from 1 ... 99%; R_T = 100 KΩ			
Cycle Period	Fixed from 10 ... 1000 s			
Repeat Accuracy	+/-0.5% or 20 ms, whichever is greater			
Cycle Period Tolerance (Factory Calibration)	≤ +/- 5%			
Reset Time	≤ 150 ms			
Time Delay vs. Temperature & Voltage	≤ +/-10%			
Input				
Voltage	24, 120, or 230 V AC			
Tolerance	+/-20%			
Line Frequency	50 ... 60 Hz			
Power Consumption	≤ 2 VA			
Output				
Type	Solid state			
Maximum Load Currents	Output	Steady State	Inrush*	*Units rated ≥ 6 A 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.
	A	6 A	60 A	
	B	10 A	100 A	
	C	20 A	200 A	
	D	1 A	10 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	-40°C ... +60°C			
Storage Temperature	-40°C ... +85°C			
Humidity	95% relative, non-condensing			
Weight	≅ 3.9 oz (111 g)			

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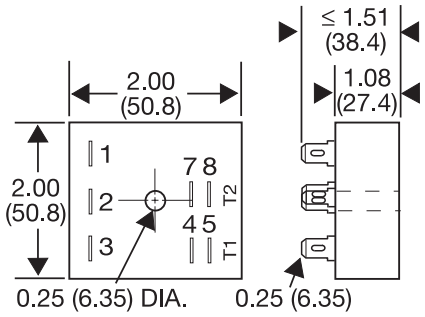
Mechanical View



Inches (Millimeters)

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