

Percentage PTHF Series Timing Module



- ON/OFF Recycling Percentage Control
- Fixed Cycle Period 10 ... 1000 s
- Digital Circuitry for Accuracy +/-0.5%
- Controls Loads of up to 20 A Steady State
- Totally Solid State & Encapsulated

Description

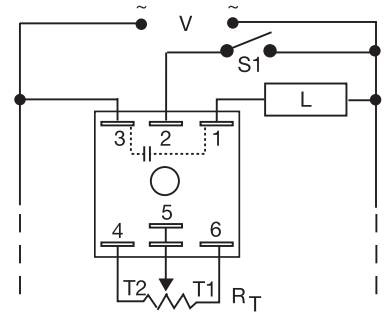
The PTHF Series can be used for a variety of applications from chemical metering, to temperature regulating, to energy management. The infinite adjustability provides good control over a wide range. The all solid state output can be used to drive solenoids, contactors, relays, or lamps, up to 20 A.

Operation

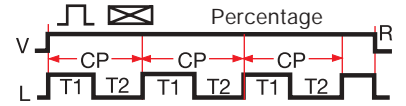
Upon application of input voltage, the output is energized and the ON time begins. At the end of the ON time, the output de-energizes and the OFF time begins. At the end of the OFF time, the output is energized and the cycle repeats as long as input voltage is applied. Increasing the ON time decreases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

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

■ Approvals: CE



$$R_T = 1 \text{ M}\Omega$$



V = Voltage S1 = Initiate Switch L = Load
 R = Reset T1 = ON Time T2 = OFF Time
 CP = Cycle Period

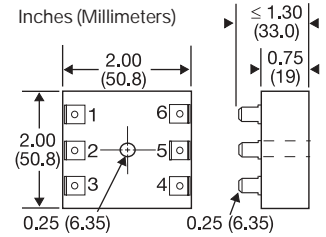
Ordering Table

PTHF Series	X	X	X
Input	-2 - 24 V AC -4 - 120 V AC -6 - 230 V AC	Fixed Cycle Period Specify 10 ... 1000 s as the total cycle period. 1 megohm R_T for 1 to 99% ON time	Output Rating -A - 6 -B - 10 -C - 20 -D - 1

Example P/N: **PTHF210A**

Technical Data

Time Delay																
Type	Digital integrated circuitry															
Range	Adjustable from 1 ... 99%; $R_T = 1 \text{ M}\Omega$															
Cycle Period	Fixed															
Repeat Accuracy	+/-0.5%															
Cycle Period Tolerance (Factory Calibration)	≤ +/-10%															
Reset Time	500 ms															
Time Delay vs. Temperature & Voltage	≤ +/-10%															
Input																
Voltage	24, 120, or 230 V AC															
Tolerance	+/-20%															
Line Frequency	50 ... 60 Hz															
Output																
Type	Solid state															
Rating	<table border="1"> <tr> <th>Output</th> <th>Steady State</th> <th>Inrush*</th> </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> <tr> <td>D</td> <td>1 A</td> <td>10 A</td> </tr> </table>	Output	Steady State	Inrush*	A	6 A	60 A	B	10 A	100 A	C	20 A	200 A	D	1 A	10 A
Output	Steady State	Inrush*														
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															
Leakage	4.5 mA at 230 V AC 4.5 mA at 120 V AC 0.9 mA at 24 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 1.30 in. (50.8 x 50.8 x 33.0 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)															



Accessories

Female quick connect



P/N: P1015-64 (AWG 14/16)

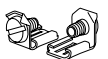
External adjust potentiometer
P/N: P1004-16



Versa-knob
P/N: P0700-7



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



See accessory pages at the end of this section.

*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.