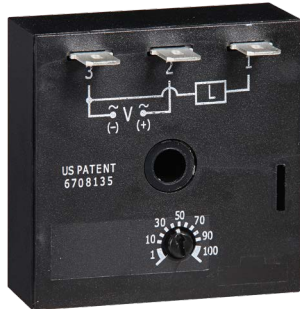


# PTHF4900DK



## Description

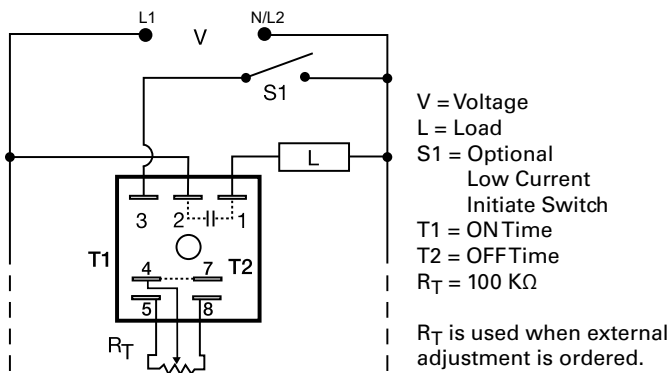
The PTHF4900DK can be used for a variety of applications from chemical metering, to temperature regulating, to energy management. The infinite adjustability from 1 to 99% provides accurate percentage on control over a wide factory fixed cycle period. When mounted on a metal surface, it can be used to drive solenoids, contactors, relays, or lamps, up to 20A steady, 200A inrush. The PTHF4900DK is the suggested replacement for the PT Series.

### Operation (Percentage)

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.

## Wiring Diagram



## Features & Benefits

FEATURES	BENEFITS
<b>Microcontroller based</b>	Repeat accuracy + / - 0.5%, Factory calibration + / - 5%
<b>ON/OFF recycling percentage control 1 to 99%</b>	Accurate control over a wide factory fixed cycle period
<b>Compact, low cost design</b>	Allows flexibility for OEM applications and reduces component and labor costs
<b>High load currents up to 20A, 200A inrush</b>	Allows direct operation of motors, lamps, and heaters without a contactor
<b>Totally solid state and encapsulated</b>	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity
<b>Metalized mounting surface</b>	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.

# PTHF4900DK

## Specifications

### Time Delay

<b>Type</b>	External or onboard knob
<b>Range/External Adjustment Resistance</b>	Adjustable from 1 - 99% / $R_T = 100\text{ K}\Omega$
<b>Cycle Period</b>	Fixed from 10s - 1000m
<b>Repeat Accuracy</b>	$\pm 0.5\%$ or 20ms, whichever is greater
<b>Cycle Period Tolerance (Factory Calibration)</b>	$\leq \pm 5\%$
<b>Reset Time</b>	$\leq 150\text{ms}$
<b>Time Delay vs Temp. &amp; Voltage</b>	$\leq \pm 10\%$

### Input

<b>Voltage</b>	120 or 230VAC
<b>Tolerance</b>	$\pm 20\%$
<b>AC Line Frequency</b>	50/60 Hz
<b>Power Consumption</b>	$\leq 2\text{VA}$

### Output

<b>Type</b>	Solid state	
<b>Maximum Load Currents</b>	<b>Steady State</b>	<b>Inrush*</b>
	1A	10A

<b>Voltage Drop</b>	$\approx 2.5\text{V}$ at rated current
<b>OFF State Leakage Current</b>	$\approx 5\text{mA}$ @ 230VAC

### Protection

<b>Circuitry</b>	Encapsulated
<b>Dielectric Breakdown</b>	$\geq 2000\text{V RMS}$ terminals to mounting surface
<b>Insulation Resistance</b>	$\geq 100\text{ M}\Omega$

### Mechanical

#### Mounting \* Dimensions

Surface mount with one #10 (M5 x 0.8) screw  
**H** 50.8 mm (2"); **W** 50.8 mm (2");  
**D** 38.4 mm (1.51")  
 0.25 in. (6.35 mm) male quick connect terminals

#### Termination

#### Environmental

#### Operating/Storage

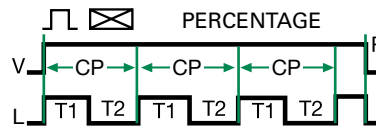
#### Temperature

#### Humidity

-40° to 60°C / -40° to 85°C  
 95% relative, non-condensing  
 6, 10, 20A units:  $\approx 3.9\text{ oz}$  (111 g)

\*Units rated  $\geq 6\text{A}$  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 16ms.

## Function Diagram



V = Input Voltage  
 CP = Cycle Period  
 L = Load  
 T1 = ONTime  
 T2 = OFFTime  
 R = Reset