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## PTHF4900DK



Wiring Diagram


V = Voltage
L = Load
S1 = Optional
Low Current
Initiate Switch
T1 = ONTime
T2 = OFFTime
$\mathrm{R}_{\mathrm{T}}=100 \mathrm{~K} \Omega$
$\mathrm{R}_{\mathrm{T}}$ is used when external adjustment is ordered.



## 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.

## Features \& Benefits

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

## PTHF4900DK

| Specifications |  |
| :---: | :---: |
| Time Delay |  |
| Type | External or onboard knob |
| Range/External |  |
| Adjustment Resistance | Adjustable from 1-99\% / $\mathrm{R}_{\mathrm{T}}=100 \mathrm{~K} \Omega$ |
| Cycle Period | Fixed from 10s - 1000m |
| Repeat Accuracy | $\pm 0.5 \%$ or 20 ms , whichever is greater |
| Cycle Period Tolerance (Factory Calibration) | $\leq \pm 5 \%$ |
| Reset Time | $\leq 150 \mathrm{~ms}$ |
| Time Delay vs Temp. |  |
| Input |  |
| Voltage | 120 or 230VAC |
| Tolerance | $\pm 20 \%$ |
| AC Line Frequency | 50/60 Hz |
| Power Consumption | $\leq 2 \mathrm{VA}$ |
| Output |  |
| Type | Solid state |
| Maximum Load Currents | $\begin{array}{cc} \text { Steady State } & \text { Inrush }^{*} \\ \text { 1A } & 10 \mathrm{~A} \end{array}$ |
| Voltage Drop | $\cong 2.5 \mathrm{~V}$ at rated current |
| OFF State Leakage Current | $\cong 5 \mathrm{~mA}$ @ 230VAC |
| Protection |  |
| Circuitry | Encapsulated |
| Dielectric Breakdown Insulation Resistance | $\geq 2000 \mathrm{~V}$ RMS terminals to mounting surface $\geq 100 \mathrm{MQ}$ |

Mechanical

Mounting*
Dimensions
Termination
Environmental
Operating/Storage
Temperature $\quad-40^{\circ}$ to $60^{\circ} \mathrm{C} /-40^{\circ}$ to $85^{\circ} \mathrm{C}$
Humidity
*Units rated $\geq 6$ A must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is $90^{\circ} \mathrm{C}$. Inrush: Non-repetitive for 16 ms .

Function Diagram


V = Input Voltage
CP = Cycle Period
L = Load
T1 = ONTime
T2 $=$ OFFTime
$\mathrm{R}=$ Reset

