



- All Digital Settings
- 15, 30, 60 & 120 Second Cycle Times
- Power On Hour Meter
- Resettable Hour Meter
- 1% to 95% Cycling
- Restart Timer
- Count Down Timer
- Multiple Mounting Options

DPT-IRR



Digital Percentage Timer Irrigation

www.rke.com



Purpose

The purpose of the DPT-IRR (Digital Percentage Timer for Irrigation) is to proportion the amount of On time (percentage of time On) based on a fixed total cycle time (total of On and Off times).

Operation

When supply voltage is applied to the DPT-IRR, the output contacts energize and the total cycle time is initiated along with the percentage of total cycle time that the output contacts will be energized. When the On time percentage is completed, the output contacts are de-energized. As long as supply voltage is available, the DPT-IRR will continue to cycle On and Off based on the percentage of On time and total cycle time.

For example if the total cycle time is 60 seconds and the DPT-IRR is set for a 20% of On time, when supply voltage is applied the output contacts will be energized for 12 seconds (20% of 60 seconds) and then de-energize for 48 seconds (80% of 60 seconds). The total cycle time will always be 60 seconds in this example.

Features

- All digital settings (no knobs)
- Digital display of the time remaining. This is a count down timer showing the time remaining until the output contacts transfer from open to closed or closed to open.
- Digital selection of Total Cycle Time (15, 30, 60 or 120 seconds)
- Digital selection of Percentage On Time (1% to 10% in 0.1% increments, 10% to 95% in 1% increments)
- Manual On, Manual Off or Auto Cycle selection
- Power Up Delay setting. This is used to delay the energizing of the output contacts when power is first applied to the DPT. This feature is used to allow for the staggered starting of multiple pieces of equipment using the same power source.
- When power returns after a loss of power, the DPT will re-start at the same time in the cycle as when power was lost.
- Hour Meters
 - Running Hours - The Running Hour meter displays total time power is applied to the DPT.
 - Interval Hours – The Interval Running Hour Display shows the hours that the output contacts are closed (and is re-settable).
- Changes in the On time percentage will be initiated on the next cycling of the output contacts.

General Operational Specifications

Supply Voltages:	24VAC, 120VAC & 240VAC, 50/60Hz
Cycle times:	15, 30, 60 & 120 seconds, selectable
On Time Percentages:	1% to 95%, 0.1% increments from 1-10, 1% increments from 10-95% <1% Continuous Off >95% Continuous On
Re-Start Delay:	0 seconds to 10 minutes, 30 second increments, selectable
Screens & Set-Up:	Membrane Buttons & Digital display <ul style="list-style-type: none">• Cycle time Remaining and Relay Status• Percentage On Time Selection (Off, 1% to 95%, On)• Power Re-Start Delay• Interval Hours (up to 99,999)• Running Hours (up to 99,999)• Manufacture Name & Firmware Version

Default Set-Up

The default set-up for the DPT as shipped from R-K Electronics is:

Operation:	Pump-Jack:
Cycle Time:	30 minutes
On Time:	50%

Custom Set-Up

The DPT uses 4 membrane buttons to allow the customer to change the set-up criteria for their particular apump-jack or irrigation application. The following listings show the arrangement and selections available by moving through the menu choices. The membrane buttons allow for movement right or left with wrap around to selection criteria and up and down within a selection for specific parameters.

Example: To select Irrigation from the default screen (Cycle time Remaining and Relay Status) press the left arrow 3 times to "Applicaition Pump-jack" and press the down arrow once to "Applicaition Irrigation". Now you can press the right arrow to take you to the Cycle Time selection screen. If you want to change the Total Cycle Time, press the up or down arrow until you have selected the Total Cycle Time that you want (15, 30, 60 & 120 seconds). Once you have selected the Total Cycle Time on the display:

1. Pressing either the Right or Left arrow will set the new Total Cycle Time into memory and take you to the next screen.
2. After 30 seconds of no action, the new Total Cycle Time will be set into memory and the screen will go back to the default screen showing the remaining time and relay status.

To view or change the Percentage of On Time scroll right or left to the Percentage On Time screen and then use the up or down arrows to select the percentage of On time that you want. Again, pressing the right or left arrow or waiting 10 seconds will set the new parameter into memory.

Power-Up Delay

If you want to use a delay on first application of supply voltage to the DPT-IRR (recovery from a power outage), move right or left to the Power-Up delay screen. Then use the up or down arrows to select the delay you want to postpone the On cycle after recovery from a power outage. Pressing the right or left arrow or waiting 30 seconds will set the new parameter into memory.

Interval Running Hours

There are 2 running hour meters in the DPT-IRR, in Irrigation operation one is Power On Hours and the other is Interval On Hours that can be reset back to zero (much like a trip odometer in your car). To reset the Interval On Hours, move right or left to the Interval On Hours screen and then press the up membrane button under the word "Reset", the display will reset. The Power On Hours screen can not be reset.

Screens

Cycle time Remaining and Relay Status

TIME RELAY
0Min 22Sec ON

Auto (Screen above), Manual Off, Manual On (via Up and Down arrows)

Percentage On Time Selection

OFF, 1.0%, 1.1% ..., 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, ON

Total Cycle Time Selection

15 Sec, 30 Sec, 60 Sec, 120 Sec

Power-Up Delay

0Sec 0Min, 30S0M, 0S1M, 30S1M, 0S2M, 30S2M, 0S3M, 30S3M, 0S4M, 30S4M, 0S5M, 30S5M, 0S6M, 30S6M, 0S7M, 30S7M, 0S8M, 30S8M, 0S9M, 30S9M & 0Sec 10Min

Interval On Hours (reset via Up and Down arrows)

99,999

Power On Hours

99,999

R-K Electronics

DPT v_____

