

## **Product: Pro Tower – Dual Pulse Timer**

### **Model: DPT**

#### **FUNCTIONAL DESCRIPTION**

The Pro Tower DPT (Dual Pulse Timer) monitors flow meters/sensors that produce pulse signals and use these signals to govern its outputs. The outputs may be used to control metering pumps, valves or other actuators in a large variety of applications.

#### **PHYSICAL DESCRIPTION**

The Pro Tower DPT has one main power cable, one input, two power outputs (Pump and Valve), two settable timers and accumulators. The Pro Tower DPT is housed in a 7" x 5" x 3" enclosure with a removable clear plastic lid. Under the lid a 2 line 16-character LCD display and a 16-button keypad are used to set and alter the operating mode, timers and accumulators.

#### **OPERATION**

There are three modes of operation:

##### **- Parallel Mode**

The input pulses are counted in two accumulators with independent settings. When each accumulator reaches its preset value, the corresponding output (Pump or Valve) will activate for its preset period. Afterwards, the cycle repeats.

##### **- Serial Mode**

The input pulses are counted in only the pump accumulator. When the preset number of pulses is reached, the pump output will activate, for its preset time. As soon as the pump output deactivates the valve output will activate for its preset time. Afterwards, the cycle repeats.

##### **- Test Mode**

The input pulses are not counted. This mode allows a user to test the output and timer circuitry. The user can activate either one or both of the outputs. Once activated the outputs will remain active for each of their preset periods. The test mode can be stopped at any time. Once the test has been completed or stopped the Pro Tower DPT will revert to the operation mode that it was set to prior to entering the test mode.

## SETUP PROCEDURE

To setup the Pro Tower DPT enter the menu by pressing the 'Menu' button. The menu can be scrolled through by using the ↑ and ↓ buttons; at any time the menu can be exited by pressing the 'Exit' button. The menu has three possible selections: 'Operation Mode', 'Setup Pump' and 'Setup Valve'. To make a selection scroll to that menu item and press the 'Enter' button. The Setup Pump and Setup Valve menu items allow the setting of the number of pulses till activation and the activation duration for each corresponding output. While the 'Operation Mode' menu item leads to the Operation Mode submenu.

The Operation Mode submenu will display the three operating modes. They are displayed as 'Par-1' for parallel mode, 'Ser-2' for serial mode and 'TP-3' for test mode. To make a selection press the corresponding number button (a flashing cursor will highlight your selection) and press the 'Enter' button to accept this selection. The Pro Tower DPT will return to the main menu with the next menu item selected.

When the Test mode is selected the following menu options will be presented: 'PP-1' to test the pump output, 'VV-2' to test the valve output, 'Both-3' to test both outputs and 'Test Stop-4' to stop a test in progress. To make a selection press the corresponding number button (a flashing cursor will highlight your selection) and pressing the 'Enter' button to accept this selection. When testing an output, the output will activate and will remain active for the period of time that is set in the corresponding output's setup.

## SPECIFICATION

- Power 115VAC Nominal
- Input flow meter input – relay dry contact
- Output Power output 115VAC 5A (Hot, Neutral, Ground)
- Accumulator Range 1 to 999 Counts
- Timer Range 1 to 59999 Seconds
- Enclosure Glass-filled polycarbonate, 7" x 5" x 3"
- Keypad 16 button matrix
- Display 2 Row x 16 Character, backlit LCD