

**KPC-01****TEMPERATURE PROCESS CONTROL TRAINER**

**KPC-01** Temperature control trainer is designed for understanding the basic temperature control principles for the Process control mounted on Aluminum profile rack with sturdy table top flat panel. The process setup consists of heating tank fitted with SSR controlled heater for on-line heating of the water. The flow of water can be manipulated and measured by rotameter. Temperature sensor (RTD) is used for temperature sensing. The process parameter (Temperature) is controlled by microprocessor based digital indicating controller which manipulates heat input to the process. Each panel has ABS molded plastic sturdy enclosure with 4mm shrouded connectors showing circuit diagram & its connection tag numbers for easy understanding and connections.

**Range of Experiments**

- Study of open loop (Manual control)
- Study of on/off controller
- Study of proportional controller
- Study of prop. integral controller
- Study of prop. derivative controller
- Study of PID controller

**Specifications**

- Trainer having control panel should provided in 40X40mm Aluminum profile rack with sturdy table top flat panel.
- Should have ABS plastic panel mounted on the aluminum rack with mimic diagram
- All input & output are terminated in 4mm shrouded connector, Should provide 4mm banana cable for experiments.
- Type of control PID
  - Control unit Digital indicating controller
  - Temperature sensor Type RTD, Pt100
- Heating control Proportional power controller (SSR), Input 4-20 mA, Capacity 20 A
- Heater Type Electrical 2 coil, Capacity 3 KW
- Rotameter 6-200 LPH
- Process tank Capacity 0.5 lit, insulated
- 230 +/- 10 VAC, 50 Hz, 1 phase with On/Off Switch.

*Note : Specifications can be altered without notice in our constant efforts for improvement.*