

**KPC-02 FLOW PROCESS CONTROL TRAINER**

**KPC-02** Flow control trainer is designed for understanding the basic Flow control principles for the Process control mounted on Aluminum profile rack with sturdy table top flat panel. The process setup consists of supply water tank fitted with pump for water circulation. A DP transmitter is used for flow sensing which measures differential pressure across orifice meter. The process parameter (flow) is controlled by microprocessor based digital indicating controller which manipulates pneumatic control valve through I/P converter. The control valve is fitted in water flow line. Each panel has ABS molded plastic sturdy enclosure with 4mm shrouded connectors showing circuit diagram & its connection tag numbers for easy understanding and connections.

**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
  - Input Type 4-20mA
- I to P converter Input 4-20mA, Output 3-15 psig
- Control valve Type Pneumatic, Size 1/2", Input 3-15 psig, Air to close, Linear type
- Rotameter 10-200 LPH
- Pump Fractional horse power type submersible with sump tank
- Flow measurement sensor, output 4-20mA
- Air filter regulator Range 0-2.5 kg/cm<sup>2</sup>,
- Pressure gauge Range 0-2.5 kg/cm<sup>2</sup>(1No), Range 0-7 kg/cm<sup>2</sup>(1No)
- 230 +/- 10 VAC, 50 Hz, 1 phase with On/Off Switch.
- Optional: Mini compressor

**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



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