# **⊚ LAB ENGINEERING**

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#### **Product Name :** Process Control Trainer

#### Product Code : ELB-PCER0001



### **Description :**

Process Control Trainer

#### **Technical Specification :**

#### **Controller Section Specifications:**

- Computer Interface Panel for connection to PC through parallel port, V to I function block, I to V function block, USB converter
- Instrumentation Power Supply cum Multi Channel DPM Panel
- Thyristor Actuator cum Signal Conditioning panel
- PC Based Digital PID Controller with online monitoring / data acquisition / PID software
- Operating Modes: Simulator Mode, Process Monitoring Mode, PID Controller Mode

#### Hardware:

- Controlled Medium: Air for pressure and flow, water for temperature and air for cooling
- Storage Tank: 10 ltr plexiglass
- Process Tank: 5 ltr stainless steel tank with temperature and pressure sensors attachment
- Electronic Sensors: Piezo-resistive pressure sensor, PT100 temperature sensor, flow turbine flow sensor
- Control Valve: Pneumatically operated air to close
- Rotameter
- Generation Distribution Pump
- Bourden Gauges

- Manual SS Valves
- SS Piping Material
- Air Filters Regulators
- Needs 10 Bar air compressor

### **Experiments:**

- Study of temperature control loop: open response closed loop response with P, PI, PID
- Study of pressure control loop: open response closed loop response with P, PI, PID
- Study of air flow control loop: open response closed loop response with P, PI, PID
- Study of control valve (gain scheduler hysteresis), V to I converter, I to P converter
- Study of ratio control loop
- Study of cascade control loop
- Study of level ON / OFF control loop
- Study of feed forward control loop

We are well-known manufacturers, OEM suppliers of Process Control Trainer for Process Control Trainer Sensor. Contact us for high quality Process Control Trainer for Process Control Trainer Sensor for schools lab, college lab, universities, research labs, various teaching and workshop training laboratories and industries in India.

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