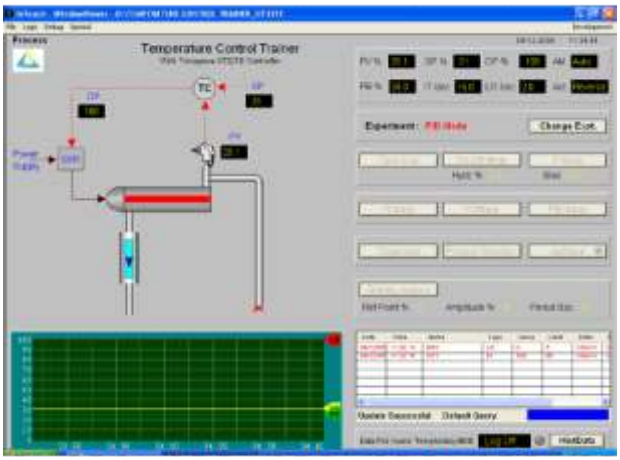

Features

1. ON-Off & PID operation
2. Auto tuning
3. SCADA study
4. MODBUS communication
5. Multi drop and point to point Communication
6. Server-Client communication

Tesca Temperature Control Trainer is designed for understanding the basic temperature control principles. 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. These units along with necessary piping and fitting are mounted on support frame designed for tabletop mounting. Optionally controller can be connected to computer through USB port for monitoring the process in SCADA mode. Product is supplied with 32 tag demo version of SCADA software package Demo version of SCADA Software package (32 tags) is provided which helps in learning basics of SCADA programming. The software can be operated in development and runtime mode. The experiments are conducted in Runtime mode and the engineering can be viewed/modified in Development mode. The software is easy to use, flexible & scalable with features like Data access, trend plots, Data logging, Printing, Data export

- Product : - Temperature control trainer
- Product code : - 311A
- Type of control: SCADA
- Control unit : - Digital indicating controller with Rs485 communication
- Communication : - USB port using RS485-USB converter
- 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 : - 6-60 LPH
- Process tank : - SS304, Capacity 0.5 lit, insulated
- Overall dimensions : - 550Wx475Dx520H mm
- Optional : - SCADA software package

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
- Tuning of controller (Open loop method)
- Tuning of controller (Closed loop method)
- Tuning of controller (Using Auto Tuning)
- Study of stability of the system (Bode plot)
- Study of multi drop communication
- Study of Server-Client communication

Utilities Required

- Electric supply
- 230 +/- 10 VAC, 50 Hz, 1 phase
- Water supply
- Continuous, clean and soft water Supply @100 LPH
- Computer
- IBM compatible with standard Configuration
- Support table
- Size: 800Wx800Dx750H in mm

Note: Specifications are subject to change.

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