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Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Temperature Control Trainer | Prozessi PX 14

Category: Process Engineering Technology · **Order Code:** PX 14 · **Country of Origin:** India

Product Overview

The Temperature Control Trainer, Prozessi PX 14, is a tabletop setup for studying temperature control principles. It includes a heating tank with SSR controlled heater, RTD temperature sensor, rotameter, and a digital indicating controller with Ethernet communication. The Temperature Control Trainer supports ON-OFF, PID, and auto tuning studies along with SCADA based monitoring. All components are mounted on a compact support frame for tabletop use.

View this product online: https://scienticoindia.com/product/temperature-control-trainer-nexumation-58/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Temperature Control Trainer, NexuMation 58 — Technical Specifications

Parameter	Specification
Product	Temperature control trainer
Product code	Prozessi PX 14
Type of Control	SCADA
Control Unit	Digital indicating controller with Ethernet communication
Temperature Sensor	Type RTD, PT100
Heating Control	Proportional power controller (SSR), Input 4 to 20 mA, Capacity 20 A
Heater	Type Electrical 2 coil, Capacity 3 KW
Rotameter	6 to 60 LPH, Make Eureka
Process Tank	SS304, Capacity 0.5 lit, insulated
Overall Dimensions	550W x 475D x 520H mm
Support Table	800W x 800D x 750H mm

Technical Data

Control Unit

Parameter	Value
Type	Digital indicating controller with Ethernet communication
Model	Prozessi PX 14

Temperature Sensor

Parameter	Value
Type	RTD, PT100

Heating Control

Parameter	Value
Type	Proportional power controller (SSR)
Input	4 to 20 mA
Capacity	20 A

Heater

Parameter	Value
Type	Electrical, 2 coil
Capacity	3 KW

Rotameter

Parameter	Value
Range	6 to 60 LPH
Make	Eureka

Process Tank

Parameter	Value
Material	SS304
Capacity	0.5 lit
Construction	Insulated

Key Features

Key Features

- Control Modes: ON-OFF and PID operation
- Loop Tuning: Open and closed loop tuning
- Tuning Method: Auto tuning supported
- Analysis: Stability analysis
- Monitoring: SCADA study on this Temperature Control Trainer
- Communication: MODBUS communication
- Mode: Simulation mode available

Experiments

- Study of open loop (manual control)
- Study of on/off controller
- Study of proportional controller
- Study of proportional integral controller

- Study of proportional 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)

Construction and Design

The Temperature Control Trainer, Prozessi PX 14, is built around a heating tank fitted with an SSR controlled heater. The temperature sensor, rotameter, and digital indicating controller are mounted along with the necessary piping and fittings on a support frame. The frame is designed for tabletop mounting. This construction supports the Temperature Control Trainer in both manual and SCADA controlled modes.

Software

Specially developed SCADA software is provided which helps in learning the principles of control. Different experiments can easily be selected and studied. The software is easy to use, flexible, and includes features like data access, trend plots, data logging, printing, and data export.

Scope of Delivery

- Heating tank with SSR controlled heater
- Rotameter
- Temperature sensor (RTD, PT100)
- Digital indicating controller with Ethernet communication, Prozessi PX 14
- Process tank, SS304, insulated
- Support frame with piping and fittings
- SCADA software

Required for Operation

- Electric supply: 230 +/- 10 VAC, 50 Hz, 1 phase
- Water supply: Continuous, clean and soft water, supply at 100 LPH
- Computer with standard configuration
- Support table: 800W x 800D x 750H mm

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1: What does the Temperature Control Trainer help students understand?
A: It is designed for understanding basic temperature control principles using a heating tank, temperature sensor, and digital indicating controller.

Q2: What type of temperature sensor is used?
A: An RTD type sensor, PT100, is used for temperature sensing.

Q3: Can the trainer be monitored remotely?
A: Yes, the controller can be connected to a computer through an Ethernet port for monitoring the process in SCADA mode.

Q4: What control modes are supported?
A: The trainer supports ON-OFF and PID operation, along with open loop and closed loop tuning and auto tuning.

Q5: What software is provided with the trainer?
A: A specially developed SCADA software is provided, offering data access, trend plots, data logging, printing, and data export.