Phone: +91-0171-2643080, +91-0171-2601773
Email : export@electricalelectronicsindia.com

Product Name :	**Product Code :**
Flow Level Pressure Temperature Control Bench	EEH0018

NAUGRA™
[Manufacturers and OEM Suppliers]

Description :

Flow Level Pressure Temperature Control Bench

Technical Specification :

Flow Level Pressure Temperature Control Bench

Control of water levels in loop.

Control of water flow by winnowing.

Control of water pressure by winnowing.

Control of water temperature, (piloting resistive charges per static power unit).

Control of water temperature with cascade on the flow.

Phone: +91-0171-2643080, +91-0171-2601773
Email : export@electricalelectronicsindia.com

Teaching objectives

Study of the closed loop syste.

Stability conditions.

Response to a level instruction.

Influence of the parameters of control and the algorithm setting (TOR, P, PI, or PID) on the results.

Study of an open loop system.

Study of the characteristic curves of the system.

Study of a cascade control system

Technical specifications

A supply tank of 50 liters out of PVC, with taping and overflow.

A Altuglass column high 1200 mm, diam. 200 mm with overflow and drain tap.

A centrifugal pump, 380 V three phases.

A master regulator with universal input, output 4-20 mA and a slave regulator, regulation algorithm P, PI, PID, PD + MR. function auto/manual – auto-adaptative with double display measure/instruction.

Proportional pneumatic valve, with positioning.

I/P Converter.

Pressure control by pressure transmitter (output 4-20 mA).

Electronic flowmeter (output 4-20 mA).

4 rotary flowmeters with tap.

Level measurement by pressure transmitter (4-20 mA) placed at the bottom of an Altuglass water column with overflow and drain valve.

Immersion heater with thermostat.

2 temperature probes Pt 100 ohms with transmitter 4/20 mA.

An electric cabinet including: the regulators, the protection of the pump and its command Wiring of the closed

Phone: +91-0171-2643080, +91-0171-2601773
Email : export@electricalelectronicsindia.com

loop thanks safe jacks and wires.

Mounted on a stainless steel frame with aluminium nut.

5 Process are possible.

1 – level control.

Actuator : pneumatic valve.

Sensor : pressure transmitter.

Disruption : leak on the pipe , leak under the column.

2 – Flow control.

Actuator : pneumatic valve.

Sensor : Electronic flowmeter.

Disruption : leak on the pipe

3 – Pressure control

Actuator: pneumatic valve.

Sensor: pressure transmitter.

Disruption: leak on the pipe.

4 – Temperature control

Actuator: immersion heater.

Sensor: temperature probe.

Disruption: by provision of cold water.

5 – regulation cascades of temperature/débit.

Actuator: pneumatic valve.

Sensor: temperature probe at the output of the heater and electronic flowmeter.

Disruption: leak on the pipe, variation of the heater’s power

Dimensions and weight

1500 x 800 x 2100 mm.

Weight: about 150 kg.

Essential requirements

Electric power supply: 7 kW 380 V triphase.

Compressed air: 6Nl/h, 6 bars.

Services nécessaires

Consommation 0,37 kW – 220 V monophasé.

Documentation pédagogique et technique