

**Product Name :**  
Room Temperature Control

**Product Code :**  
AR766



**Description :**

Room Temperature Control

**Technical Specification :**

This experimental unit aids introduction to industrial control engineering. The objective is to control the temperature in a virtual room. The individual components of this temperature control loop are laid out separately on panels. They are inserted in the frame and interconnected by cables.

The controlled system is a soldering iron. The soldering iron represents the heater in the virtual room. The room, with a temperature sensor, is mapped out on the panel as an aid to understanding.

Investigation of a temperature control loop

Control loop components on panels allowing for variation in installation in frame

Soldering iron as controlled system

Power controller as actuator

Parameterisable digital industrial controller

Thermocouple type k as temperature sensor

Transducer for thermocouple with digital temperature display

Bar display for manipulating variable

2 metal plates with differing thermal conductivities for disturbance generation

Line recorder

Technical Data:

Soldering iron power output: 16W

Controller

Input signals: 0/4...20ma and 0...10v

Output signals: 0...20ma  
P, PI or PID controller  
2-point controller  
Power controller  
Output power: 0...16w  
Input signal: 0...20ma  
Thermocouple and transducer  
Measuring range: 0...400Å°c  
Output signal: 0...10vdc  
2 metal plates for disturbance generation  
Stainless steel  
Copper  
Recorder module  
3 channels  
Measuring range: 0...20ma  
Chart width: 100mm  
Feed rate: 0...3600mm/h, stepped  
230V, 50Hz, 1 phase

## Naugralabequipments

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