

**Product Name :**  
Operation of Industrial Controllers

**Product Code :**  
AR854



**Description :**

Operation of Industrial Controllers

**Technical Specification :**

Operation of Industrial Controllers

This experimental unit familiarises students with the operation and function of a state-of-the-art industrial controller.

The controller has freely accessible inputs and outputs. Defined input levels and step signals can be produced with a signal generator. A digital voltmeter is used to measure the input and output signals. A simple first order lag is simulated to allow the response and stability of a closed control loop to be investigated.

All signals are accessible via lab jacks so a standard x/y plotter or line recorder can be used. It is also possible to control external controlled system models with this controller. As well as manual configuration and parameter setting with keys, the controller can be configured from a PC via USB.

Experimental unit for industrial controllers

Digital controller, configurable

Signal generator with potentiometer

Digital voltmeter

First order lag controlled system simulator

All variables accessible as analogue signals at lab jacks

Configuration software; software via USB under Windows 10 including PC1 Computer-System with 21" TFT-Monitor Win 10 engl.

Technical Data:

Controller

Configurable as P, PI or PID controller  
Proportional gain  $X_p$ : 0...999,9%  
Integral action time  $T_n$ : 0...3600s  
Derivative time  $T_v$ : 0...1200s  
2 inputs, 1 output  
Voltmeter  
Measuring range: 0...20v  
Resolution: 10mv  
Reference variables generator  
2 voltages selectable  
Output voltage: 0...10V  
Controlled system simulator  
Controlled system type: first order lag  
Time constant: 20s  
Controlled system gain: 1...10  
Process variables as analogue signals: 0...10v  
Connection of external instruments (e.g. oscilloscope, line recorder) via lab jacks  
230V, 50Hz, 1 phase.

## Naugralabequipments

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