

03

Electricity · Electronics &
Automatic Control(P.I.D)

WST-25

Automatic Control Trainer(Module Type)

Introduction

- This equipment consists of three-step rail frame and user can do P.I.D experiment by inserting modules and modularized meters.
AC power is built-in on the bottom and Power bus lines between frames are used to support power.
- It consists of independent actuators for P.I.D experiment and level control system, temperature control system and servo control system are used as actuators.
- Using a real time controller, data of actuators are interfaced with a computer and values and graph can be saved and printed out.
- Standard symbol for conversion function is displayed in a module.
It is designed to prevent a breakdown which can be generated from a short or change of polarity.



Experimental List

- P Control Characteristic / I Control Characteristic / D Control Characteristic / Response Characteristic by Disturbance
- Temperature, Level and Servo Control Experiment using PI / PID Controller
- Temperature, Level Control Experiment using Two-position Controller
- Display and Control Experiment using Software

Specification

Controller Module

Module No: WST25-1

- Set Point Adjust Module : 1 EA
- DC 0~10V, DC±10V
- Dimension : 170(W)×280(D)

Module No: WST25-2

- Comparator Module : 2 EA
- Inverting & Non Inverting
- Dimension : 170(W)×280(D)

Specification

Module No: WST25-3

- Proportional Controller Module : 1 EA
- $\times 0.1 \sim \times 100$ Range
- Dimension : 170(W) \times 280(D)

Module No: WST25-4

- Integrator Controller Module : 1 EA
- $\times 0.1\text{ms} \sim \times 10\text{s}$ Range
- Dimension : 170(W) \times 280(D)

Module No: WST25-5

- Differentiator Controller Module : 1 EA
- $0.1\text{ms} \sim \times \text{s}$ Range
- Dimension : 170(W) \times 280(D)

Module No: WST25-6

- Summing Point Module : 1 EA
- Manu / Auto / Auto, Yo
- Dimension : 170(W) \times 280(D)

Module No: WST25-7

- Voltage Indicator Module : 1 EA
- DC - 10V \sim + 10V
- Dimension : 170(W) \times 280(D)

Module No: WST25-8

- 2-Position Controller Module : 1 EA
- 5 Band Width Adjustment
- Dimension : 170(W) \times 280(D)

Module No: WST25-9

- Phase Delay Module : 1 EA
- $0.1\text{ms} \sim 0.1\text{s}$
- Dimension : 170(W) \times 280(D)

Module No: WST25-10

- Time Delay Module : 1 EA
- Proportional and Integrator
- Dimension : 330(W) \times 280(D)

Module No: WST25-12

- n/U Transducer Module : 1 EA
- n-U Conversion Circuit
- Dimension : 170(W) \times 280(D)

Module No: WST25-14

- Phase Control Rectifier Module : 1 EA
- In : DC 0~10V, Out: DC 0~240V
- Dimension : 330(W) \times 280(D)

Module No: WST25-15

- Motor/Generator Control System Device : 1 EA
- DC M / DC G System
- Dimension : 330(W) \times 280(D)

Module No: WST25-16

- Generator Load Module : 1 EA
- Lamp Load : 2 ea
- Dimension : 170(W) \times 280(D)

Module No: WST25-17

- Voltage Divider Module : 1 EA
- Divider Circuit of 20 : 1
- Dimension : 170(W) \times 280(D)

Module No: WST25-18

- Matching Amplifier Module : 1 EA
- Square Wave, Sine Wave
- Dimension : 170(W) \times 280(D)

Module No: WST25-19

- DC Power Supply Module : 1 EA
- DC $\pm 15\text{V}$
- Dimension : 170(W) \times 280(D)

Module No: WST25-21

- Function Generator : 1 EA
- 1MHZ Less Than, 3V Output

WST-25

Specification

Module No: WST25-22

- Power Supply Module : 1 EA
- OUT : DC 0 ~ 240V
- Dimension : 330(W) × 280(D)

Module No: WST25-M9

- Interface Module : 1 EA
- Computer Communications
- Dimension : 170(W) × 280(D)

Digital Voltmeter Module

Module No: WST25-M1

- DC Voltmeter : 300V × 2EA
- AC Voltmeter : 300V × 2EA

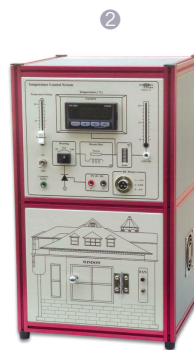
Module No: WST25-M2

- DC Voltmeter : 50V × 2EA
- AC Voltmeter : 10V × 2EA

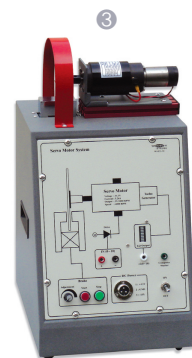
Experimental Actuators



① WST-25A-L Level Control System



② WST-25A-T Temperature Control System



③ WST-25A-S Servo Control System

Accessory

- ▶ Experimental Manual : 1 Copy
- ▶ Connecting Cord : 1 Unit
- ▶ Double Plug(3 Kinds) : 1 Unit
- ▶ Incandescent Bulb(2 Kinds) : 1 Unit
- ▶ Communication Cable : 1 EA
- ▶ Software : AT MARS T25 V3.0
- ▶ Power Cable : 1 Unit