

WQIP-1085

Multi PLC Workbench

Multi PLC Workbench has following features

Diffuse reflective sensor with adjustable sensitivity

- ☐ An integrated workbench consisting of instrument panel and working table suitable for students to learn and perform various experiments of PLC Workbench (9 Different Brands of PLC).
- ☐ Measuring Instruments are fitted in the panel such that necessary interfaces are easily accessible to user.
- ☐ PLC interfacing with different application modules.
- ☐ Structure of workbench is made up of 1.5 mm-2mm thick CRC Epoxy coated pipes with top made up of good quality 19 mm-22mm thick plywood and covered with 1.8 mm- 02 mm off white color mica.
- ☐ The bench working area is covered by 2 mm – 2.5 m thick antistatic mat which help students to controls static discharge as static cause interference or damage to students, equipment and circuitry

Workbench structure specifications

- ☐ The basic structure are made up of minimum 38 x 38 x 1.5 mm CRC Epoxy coated pipes for sturdiness.
- ☐ The dimensions of Wooden base are Width: 1200-1300 mm; Depth: 762-850 mm
- ☐ M.S. drawers 03 -04 numbers with lock

Multi PLC Workbench has Technical Specifications:

PLC 1: Schneider Electric

- ☐ Digital input: 14-16 nos.,
- ☐ Digital output: 10 -14 nos.,
- ☐ Programming software : Schneider TM200/ Eco Structure
- ☐ Programming cable: USB

PLC 2: Mitsubishi

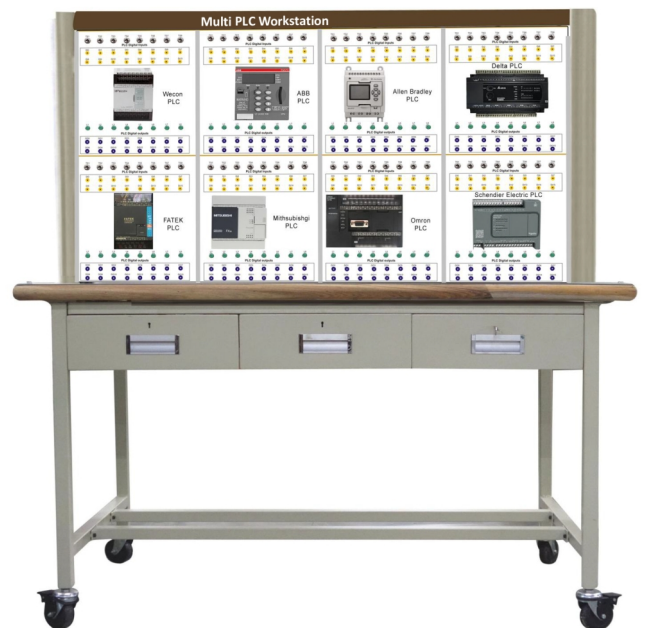
- ☐ Digital input: 16-18 nos.
- ☐ Digital output: 16-18 nos.
- ☐ Programming Software: GOC Tool kit
- ☐ Communication: Ethernet

PLC 3: Fatek

- ☐ Digital input: 8-10 nos.
- ☐ Digital output: 6 -10 nos.
- ☐ Programming Software: WinProladder
- ☐ Communication: USB

PLC 4: Delta

- ☐ Delta Digital input: 24-28 nos.
- ☐ Digital output: 16 -18 nos. (relay)
- ☐ Programming Software: ISPSOft
- ☐ Programming cable: USB



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PLC 5: ABB

- ☐ Digital inputs: 6 -10 nos.
- ☐ Digital output: 4 -09 nos.
- ☐ Analog Input: 2 nos
- ☐ Analog output: 1 no.
- ☐ Programming software: ABB automation builder
- ☐ Programming cable: Ethernet

PLC 6: Omron

- ☐ Digital input: 18 -21 nos.
- ☐ Digital output: 12-18 nos. (relay)
- ☐ Programming software: CX-One
- ☐ Programming cable: USB

PLC 7 Allen Bradley

- ☐ Digital input: 8 -12 nos.
- ☐ Digital output: 07-11 nos. (relay)
- ☐ Analog input: 04 -9 nos.
- ☐ Analog output: 01 -5 no.
- ☐ Programming software: Connected Component Workbench
- ☐ Programming cable: Ethernet

PLC 8: Siemens

- ☐ Digital input: 8-11 nos.
- ☐ Digital output: 04 -8 nos.
- ☐ Analog input: 2-6 nos.
- ☐ Analog output: 02-6 nos.
- ☐ Programming Software: LOGO Soft Comfort
- ☐ Programming cable: Ethernet

PLC 9: Wecon

- ☐ Digital input: 8 -11 nos.
- ☐ Digital output: 6-11 nos. (relay)
- ☐ Programming Software: Wecon PLC Editor
- ☐ Programming cable: USB

AC Power Supply

- ☐ Single Phase MCB
Single Phase MCB 1 no
- ☐ Three Phase MCB
Three Phase MCB 1 no

DC Power Supply

- ☐ DC Power Supply: +24VDC (6.5A)
+12VDC (1A)+5VDC (3A)
- ☐ Potentiometer 2 nos

Switches module

- ☐ Pushbutton switch: 4 -6 nos.
- ☐ Push on push off switch: 4-6 nos.
- ☐ PLC connection: 4mm sockets

Sensor module

- ☐ Proximity sensor: 2 nos.
- ☐ Photo sensor: 2 nos.
- ☐ RTD: 2 nos.
- ☐ PLC connection: 4mm sockets

Relay control module

- ☐ Double pole/through relay: 4 -6 nos.
- ☐ Relay operating voltage: 24VDC
- ☐ PLC connection: 4mm sockets

Indicators module

- ☐ Visual indicator: 4 -6 nos.
- ☐ Operating voltage: 24VDC
- ☐ Audio indicator: 2- 4 nos.
- ☐ Operating voltage: +5V/+12VDC
- ☐ PLC connection: 4mm sockets



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PLC Interactive Learning Software has following Technical Specifications:.

1. The learning module covers following topics:

- ☐ Industrial Automation and tools like PLC, SCADA, HMI, DCS.
- ☐ Role of PLC in Automation
- ☐ History of PLC
- ☐ Types of PLC like Mini, Micro & Rack
- ☐ Block diagram of PLC
- ☐ Working of PLC
- ☐ Sinking and Sourcing Concept
- ☐ PLC Program Cycle

2. Input Devices:

- ☐ Switches, Introduction, Switch State, Basic Switch Configuration, Toggle Switch, Slide Switch, Pushbutton, Rocker Switch, DIP Switch, Reed Switch, Limit Switch.
- ☐ Sensors, Actuators, State Relay
- ☐ Induction Motor
- ☐ Programming Concept: Normally Open and Normally, Close Contact, Set and Reset, Memory Bit, Types of Logic Gates, Timer, Counter, PWM, Compare, ADC, DAC Example Ladder Program
- ☐ Variable Frequency Drive (VFD)
- ☐ Introduction of HMI
- ☐ Introduction of SCADA



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