



## 01. PLC TRAINER

### MODEL-PLCLOGO100

### SPECIFICATIONS



This trainer has been designed with a view to provide practical and experimental knowledge of Programmable Logic Controllers – PLC with Sensors programming.

## **SPECIFICATIONS**

### **A. Main Specs**

1. Following Parts and Modules are assembled on Single PCB of size - 18 Inch x 15 Inch.
2. The complete circuit diagram is screen printed on component side of the PCB with circuit and Parts at the same place.
3. The PCB with components on front side is fitted in elegant wooden box having lock and key arrangement.
4. Modules and Parts should be removable without desoldering for easy repair / replacement
5. The acrylic cover is fitted on PCB to safeguard main parts.

### **B. Features**

1. This PLC CPU manages machine operations your industrial environments.
2. It can communicate with components in the SIMATIC controller range and is compatible with third-party systems via the Modbus TCP protocol.
3. It can be remotely monitored, log and assess performance data and then use it to make system improvements.
4. The logic module is displayed on an LCD screen, so it's easy to check the operating status of your processes.
5. Direct connection to the AWS cloud for speedy backup of data.

### **B. PLC - Siemens PLC LOGO! 8.3 Series**

- |                                 |                     |
|---------------------------------|---------------------|
| 1. Siemens PLC LOGO! 8.3 Series | : 1 No              |
| 2. Supply Voltage               | : 24V DC            |
| 3. Number of Inputs             | : 8 Nos             |
| 4. Output Type                  | : Transistor        |
| 5. Input Type                   | : Analogue, Digital |
| 6. Number of Digital Inputs     | : 8 Nos             |
| 7. Number of Outputs            | : 4 Nos             |
| 8. Number of Digital Outputs    | : 4 Nos             |
| 9. Number of Analogue Inputs    | : 4 Nos             |
| 10. Network Type                | : RJ45 Ethernet     |
| 11. Display Included            | : Yes               |
| 12. Programming Interface       | : Ethernet          |

### C. Programming Language

1. Ladder - LD
2. STL
3. FBD
4. SLC
5. ST- Graph

### D. Sensors

1. Temperature and Humidity Sensor - DHT11 : 1 No
2. Temperature Sensor – LM35 - Analog Output : 1 No
3. Infrared Sensor – Digital Output Module : 1 No
4. Ultrasonic Sensor - HC-SR04 : 1 No

### E. Other Parts

1. 2 Channel Relay – 5 V, 5A : 1 No
2. Audio Buzzer – Active High : 1 No
3. Input Switches : 12 Nos.
4. Output LEDs : 12 Nos

### F. Accessories

1. All Cables and Adaptors
2. Pen Drive : 16 GB with All Codes and Soft copy of Manual
3. E-Books for IOT Subject : 100 Nos. in PDF Format
4. Mp4 Video for IOT Subject : 100 Nos
5. Online Cloud/Server Services : For 1 Years on Cloud Server
6. Live Training at College : For 2 Days for 4 Hours per Day
7. After Sale Training support : By Online Zoom Meeting or By Whatsapp Video Call

## EXPERIMENTS

1. Introduction to PLC trainer & its installation with PC
2. Write and implement a simple ladder logic program using digital inputs and outputs for PLC.
3. Write and implementation of simple ladder logic program using timer
  - On delay timer
  - Off delay timer
  - Retentive timer
4. Write and implementation of simple ladder logic program using counter.
  - UP counter
  - Down counter
5. Write program on MOVE, control statement, math function, data manipulation technique on PLC.
6. To study about conveyor control system using PLC
7. Write and implement ladder logic program to on-off the DC motor using PLC
8. To study the traffic light controller system by using PLC
9. Interface SCADA with PLC and associate tags with memory and I/O and operate the PLC inputs through the switch symbol from the computer screen and view the status of the outputs using lamp and motor graphics symbols in the screen.

## Contact us

### Registered Office

SIGMA TRAINERS AND KITS  
E-113, Jai Ambe Nagar,  
Near Udgam School,  
Drive-in Road,  
Thaltej,  
AHMEDABAD-380054. INDIA.

### Factory

SIGMA TRAINERS AND KITS  
B-6, Hindola Complex,  
Below Nishan Medical Store,  
Lad Society Road,  
Near Vastrapur Lake,  
AHMEDABAD-380015. INDIA.

### Contact Person

**Prof. D R Luhar – Director**

Mobile : 9824001168

Whatsapp : 9824001168

### Phones:

Office : +91-79-26852427

Factory : +91-79-26767512  
+91-79-26767648  
+91-79-26767649

### E-Mails :

sales@sigmatrainers.com

drluhar@gmail.com