

# S7-1200 PLC Brain System

## Overview

The S7-1200 brain system offers trainees a broad knowledge about PLC systems starting from the basic fundamentals reaching to advanced applications. Through combining BEDO training modules and the S7-1200 PLC brain system, the trainee will learn about PLC programming and creating different codes for different applications grading in the level of difficulty, allowing trainees to get sufficient knowledge to aid them in the industrial life.



## Specification

- The S7-1200 brain system consists of a power socket to feed the case with power from the laboratory source, emergency switch, supply terminals, a power output to supply power from the main case to the applications modules, a PLC module, analogue simulation terminals and knobs, simulation switches, 16 digital input terminals, 4 analogue input terminals, 16 digital output terminals, 4 analog output terminals, indication LEDs with terminals, 50-Pin D-Sub Socket and 25-Pin D-Sub socket.
- Analogue simulation terminals and knobs from 0-10 VDC and from 4-20 mA to simulate a DC wave of 0V to 10V or 4mA to 20mA so the trainee can control the voltage or current value using the knob.
- The PLC consists of a SIMATIC S7- 1200, CPU 1214C PLC module, digital input and output

module, analog input module, analogue output module.

- The digital I/O module and analog I/O output module have connection pins that are connected internally to their corresponding terminals.
- The simulation switches are used as digital inputs to the PLC module to enter 1 or 0.
- Indication LEDs with terminals are included that can be used as outputs.
- 50-Pin D-Sub socket and 25-Pin D-Sub socket are included to transfer inputs and outputs to the applications module.
- The S7-1200 brain system is also supplied

with power terminals of 24V, 12V and 5V with indication LEDs to indicate power connection to the terminals.

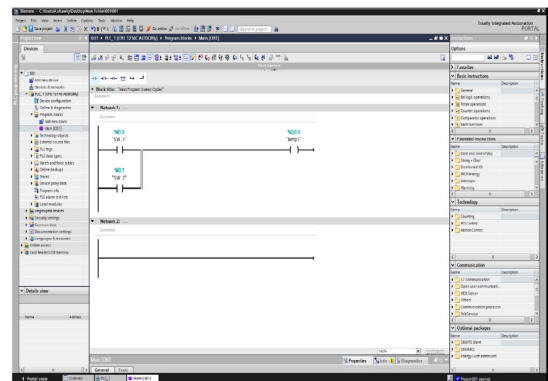
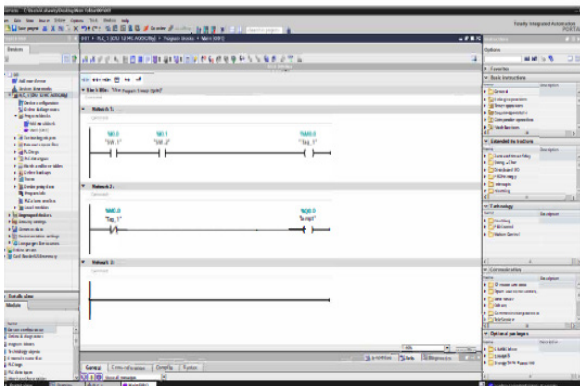
- The PLC can be connected to an external Laboratory PC where trainees can design, and execute coding examples.
- Trainees will get familiarized with PLC hardware and software configuration .
- This brain system can be connected to fundamental training kit or advanced PLC training kit to carry out a wide range of experiments.
- This brain system can be connected to HMI training kit to display and create graphical user interfaces.

## Technical Data

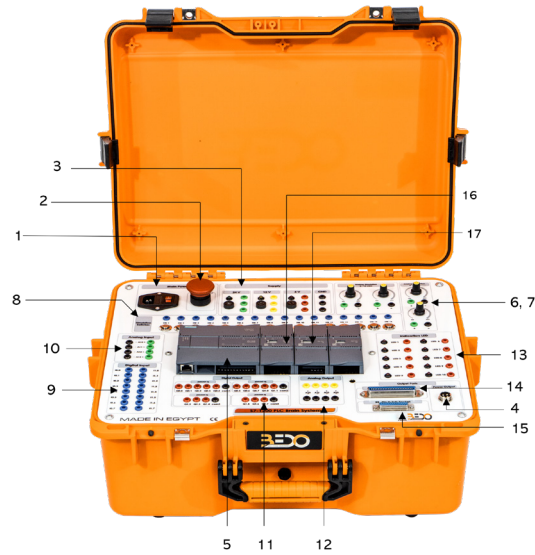
- » 1 x SIMATIC S7-1200, CPU 1214C
- » 16 Digital Inputs
- » 16 Digital Outputs
- » 4 Analog Inputs

- » 4 Analog Outputs
- » 2 x Potentiometer for simulation of an Analog 0-10 V signal
- » 2 x Potentiometer for simulation of an Analog 4-20 mA signal

## Software Screenshots



## Components



1	Power socket and the main trainer ON/OFF switch	10	Analogue input terminals
2	Emergency switch	11	Digital output terminals
3	Supply terminals (24, 12, 5 V) and their GNDs	12	Analog output terminals.
4	Power output	13	Indication LEDs with terminals
5	PLC module S7-1200	14	50-Pin D-Sub Socket
6	Analog simulation terminals	15	25-Pin D-Sub Socket
7	Analog simulation knobs	16	Simatic S7-1200 analog input
8	Digital simulation switches	17	Simatic S7-1200 analog output
9	Digital input terminals		

### Scope of Delivery

- S7-1200 brain system (MPLC100).
- Hard copy user manual.

### Required for Operation

- Laboratory PC.

### Options

- Digital content (BI01).
- HMI training kit (MPLC102).
- Fundamental training kit (MPLC103).
- Advanced training kit (MPLC104).