Features

- The trainer is designed for easy teaching and practicing about the automation system and to train students so they have high skill in the automation system for industries.

- The system consists of modular blocks to enable the student in learning PLC system in modular way. The panel type constructions are easy to handle by student when conducting the experiment.

- All inputs and outputs on each panel are equipped with robust 4-mm sockets for easy connection.

- Model (simulation) plant are included for plant implementation, so the training goals can be achieved straightforward and simple.

- Digital outputs expansion module is included for extended digital outputs point. Analog inputs/outputs expansion module is included for interfacing analog to digital form or digital to analog form.

- Complete with comprehensive experiment manual book to guide student step by step in conducting experiments.

# Advanced PLC Trainer with HMI

PT 970102AL

Covered Topics

- DE03001E   Introduction to Programmable Logic Controller
- DE03002E   Basic Programming
- DE03003E   Outputs Instructions
- DE03004E   Logic Instructions
- DE03005E   Timer Instructions
- DE03006E   Counter Instructions
- DE03007E   Simulation to Run a Motor with a Contactor
- DE03008E   Application of PLC in Traffic Light Control
- DE03009E   Digital Outputs Expansion Module 8ET1
- DE03010E   Analog Inputs/Outputs Expansion Module MAD11
- DE03011E   HMI
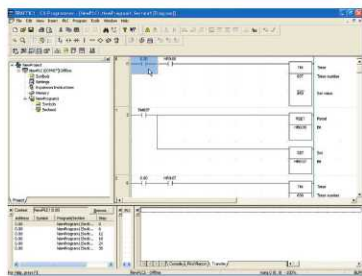
Ladder editor
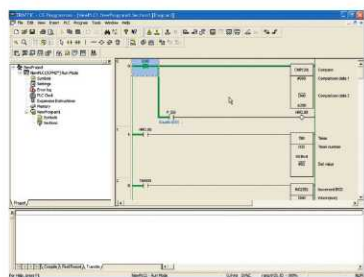
Online monitoring

## Specification

- **Power Supply [PTE-033-01]**
  - Output voltage   : DC 24V
  - Output current   : 2.1A
  - Input voltage   : 220V / 50Hz

- **Main CPU [PTE-030-01]**
  - CPU   : OMRON CP1
  - Program memory   : 10K Steps
  - Data memory   : 32K Words
  - Interrupt inputs   : 6
  - High speed counter
  - DC inputs   : 36 inputs
  - DC outputs   : 24 outputs
  - Analog control   : 1 control (setting range: 0-255)
  - Analog input   : 1 input (resolution: 1/256, input range 0 to 10 V). Not isolated

  - PID control instruction
  - Communication function :
    - One built-in peripheral port (USB 1.1) for connecting support software only
    - A maximum of 2 serial communication option boards can be mounted
    - A maximum of 2 ethernet option boards can be mounted
  - Max digital I/O capacity with additional I/O expansion units : 180 points
  - Max I/O expansion units : 3 units
  - Included Option boards : 1 unit RS-232C Port Support Host Link, 1:N NT Link, 1:1 NT Link, Noprotocol, Serial PLC link slave, Serial PLC Link Master, Serial Gateway converted to CompoWay/F and Tool Bus, 1:1 Link Master and 1:1 Link Slave

- **Digital Expansion 8ET1 [PTE-030-02]**
  - Digital output   : 8 outputs

- **Analog Expansion MAD11 [PTE-030-03]**
  - Analog input   : 2 inputs (voltage or current input, selectable)
  - Analog output   : 1 output (voltage or current output, selectable)

For further detail information, please contact us at
Jl. Pudak No. 4, Bandung 40113, West Java - Indonesia | Phone : +62 22 723 1046 | Fax.: +62 22 720 7252 | E-mail : contact@pudak.com | Website: www.pudak.com

PUDAK SCIENTIFIC

Training Panel System

>> Specification Continued

- **HMI** [PTE-030-04]
  - Display : 7" TFT LCD
  - Resolution : 800 x 480
  - Touch panel type : 4 wire resistive type
  - Processor : 32bits RISC ARM
  - Colors : 16M
  - RAM : 128MB
  - Storage : 128MB
  - USB Host : USB 2.0
  - Ethernet port : RJ45
  - COM Port : RS-232, RS-485 2W/4W
  - Power : 24V DC

- **Relays** [PTE-033-05]
  - DC inputs : 8 inputs
  - Relay outputs : 8 relay SPDT 220V, 0.5A

- **DC Input Simulator** [PTE-033-06]
  - 8 switches
  - Output voltage switch on: 24VDC

- **Logical LED Display** [PTE-033-07]
  - 16 LED as indicator
  - Inputs voltage : 24VDC

- **Traffic Light Model** [PTE-MP1-01]
  Traffic light model to simulate junction of main road and a branch/
  minor road traffic light system inputs voltage: 24VDC

- **CX One Software for PLC Programming** [GSC 700]

- **RS-232 Cable** [GSE 230 02]

- **Required Computer** (Not included), with:
  - Operating system minimum : Windows 7
  - USB port minimum : 2 pcs
  - CD ROM

PT970102AL ADVANCED PLC TRAINER WITH HMI
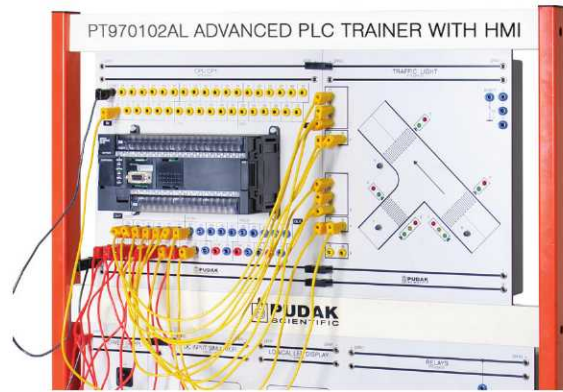
CPU CP1 Omron [PTE-030-01] with Model (Simulation) Plant

PT 970102AL Advanced PLC Trainer with HMI
consists of

Cat. No.	Description	Qty.
PTE-033-01	Power Supply	1 pc
PTE-030-01	CPU CP1 Omron	1 pc
PTE-030-02	Digital Expansion 8ET1	1 pc
PTE-030-03	Analog Expansion MAD11	1 pc
PTE-030-04	HMI	1 pc
PTE-033-05	Relays	1 pc
PTE-033-06	DC Input Simulator	1 pc
PTE-033-07	Logical LED Display	1 pc
PTE-MP1-01	Traffic Light Model	1 pc
GSC 700	CD CX One Software	1 pc
GSE 230 02	RS232 Cable	1 pc
	USB Cable	2 pcs
FLS 20.02/097	Connecting Cross	40 pcs
KAL 99/40-050	Connecting Lead 50cm, Yellow	40 pcs
KAL 99/10-050	Connecting Lead 50cm, Black	10 pcs
KAL 99/20-050	Connecting Lead 50cm, Red	10 pcs
D10S-01E	Experiment Manual Book	1 pc
D10M-01E	CP1 Programming Manual Book	1 pc
GSN 240	TPS Frame 600mm	1 set

Digital Expansion 8ET1
PTE 030-02
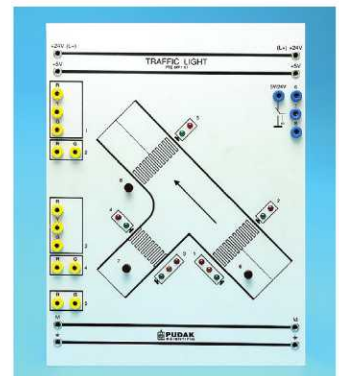

Analog Expansion MAD11
PTE-030-03

HMI
PTE 030-04
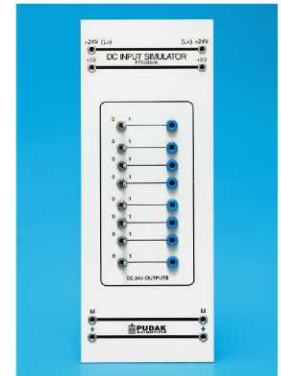
DC Input Simulator
PTE-033-06
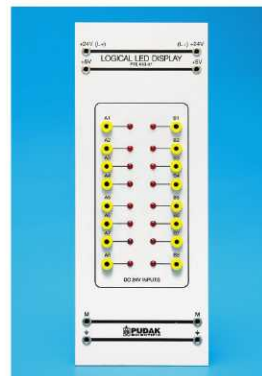
Logical LED Display
PTE-033-07

Traffic Light Model
PTE-MP1-01

Specifications and illustrations are subject to change without prior notice