

# CPS-3500U

## Universal PLC Training System



### FEATURES

- All-in-one integrated training system designed to cultivate excellent technical professionals
- Capable of installing and replacing three types of PLC: Mitsubishi, LS and Siemens
- Easy installation of a modularized PLC and replacement of it with other type of PLC
- Equipped with a DC 24V power supply and an aluminum profile plate for mounting experimental modules easily
- 4-digit DC power monitoring device to check the status of power

### EXPERIMENTAL CONTENTS

- Functions of the programmable logic controller
- 1:1 contact control by the input switches
- Group control of lighting by the analog switch
- Motor control by a timer and a counter
- Output sequence control by the analog switch
- Counter application by the photo sensor
- Motor control by the proximity sensor
- Controlling the buzzer sound by input signals
- Operations of the position simulator
- Interlock Circuit

### SPECIFICATIONS

• Main Frame		
<b>DC output power</b>	Voltage	0~24V variable / 24V fixed
	Current	0~2A variable / 2A fixed
	Ripple	0.02% + 2mV
	Regulation	0.02% + 1mV
	Voltmeter	DVM
	Ammeter	DAM
	DC output protection	Overvoltage / overcurrent / overload protection, Alarm function
	Reset switch	1ea
	Alarm indicator lamp	1ea
<b>I/O terminal</b>	Input terminal	32 points (8 points / 1COM) 25-pin connector : 2ea
	Output terminal	32 points (8 points / 1COM) 25-pin connector : 2ea
	Analog input terminal	4 channels
	Analog output terminal	4 channels
<b>I/O simulator</b>	Input switch	Toggle switch (4ea), Push button (4ea) (Output terminal : 2COM, 8 points)
	Output lamp	8ea (input terminal : 1COM, 8 points)
	Output buzzer	1ea (input terminal : 1COM, 1 point)
<b>A/D &amp; D/A simulator</b>	A/D signal variable system	10-turn variable resistor (for voltage I/O & current I/O) : 2ea 4Ω terminal block : 3ea
	Digital voltmeter	2ea (DC 15V scale)
	A/D input terminal	8 points / 1COM
	D/A output terminal	4 points / 1COM
<b>Panel structure</b>	Aluminum profile structure with each slot of 25mm Multi-connector for various PLC units	
<b>Input voltage</b>	AC 220V 50/60Hz	
<b>Dimension</b>	995(W) x 300(D) x 220(H) mm	

## SPECIFICATIONS

• Mitsubishi PLC System (CPS-3500UA)		
<b>CPU (Q03UDECPU)</b>	Program capacity	28KB
	Device memory	29KB
	RAM	32KB
	Processing speed	0.079μs
<b>Base Module (Q38B)</b>	8 slots for installing the Q-series modules	
<b>Power Module (Q62P)</b>	Input voltage range	AC 100V ~ 240V
	Output voltage	DC 5V / 24V
	Output current	3A / 0.6A
<b>Input Module (QX40 : 2ea)</b>	16-point input	DC 24V 4mA
	Response time	1 / 5 / 10 / 20 / 70 ms
	16 points, 1 common	18-point terminal
<b>Output Module (QY10 : 2ea)</b>	16-point output	DC 24V / AC 240V 2A / 1 point, 8A / 1 common
	Response time	12 ms
	16 point, 1 common	18-point terminal
<b>GX Developer (MELSEC PLC Programming software)</b>	OS	WINDOWS 9x, XP, NT
	Program langauge	LD, SFC, ST, FB
	ALD language	ETHERNET, MELSECNET/H
	Network parameter setting	CC-LINK
<b>PC Communication Cable</b>	1ea	
<b>Main Frame</b>	1ea	
• LS GLOFA-GM4 PLC System (CPS-3500UB)		
<b>CPU (GM4-CPUA)</b>	Program memory	128KB
	Data memory	64KB
	Maximum I/O point	2048 points
<b>Base Module (GM4-B08)</b>	Number of slot	8ea (for mounting the GM4 module)
<b>Power Module (GM4-PA2A)</b>	Input voltage	AC220V
	Output voltage/current	DC5V 4A, DC24V 0.7A
<b>Input Module (G4I-D22A): 2ea</b>	16-point input	DC12V / 24V
	Rated input current	5mA / 11mA
	8 points 1 common	20-point terminal
<b>Output Module (G4Q-RY2A): 2ea</b>	16-point output	Relay
	Rated Load	DC12V / 24V, AC110/ 220V 2A
	8 points 1 common	20-point terminal
<b>Analog Input Module (G4F-AD2A)</b>	Voltage/current input type (4 channels)	DC -5 ~ +5V, -10 ~ +10V, -20 ~ +20mA
<b>Analog Output Module (G4F-DA2V)</b>	Voltage output type (4 channels)	DC -10 ~ +10V
<b>PLC Programming Software</b>	GMWin (GLOFA GM series software)	
<b>PC Communication Cable</b>	RS232C cable (1ea)	
<b>Main Frame</b>	1ea	

### PLC Unit



# CPS-3500U

• Siemens S7-1500 PLC System (CPS-3500UC)		
<b>CPU</b>	Processing speed	10ns
	Number of I/O modules	Maximum 8,192 ea
	Programming language	LAD, FBD, STL, SCL, Graph
	Power source	24VDC (reverse voltage prevention)
<b>I/O Address Area</b>	Display	Diagonal 6.1cm
	Digital input unit & voltage	32 contact points & 24VDC
	Digital output unit & voltage	32 contact points & 24VDC
	Analog input unit & voltage	8 channels & -10 ~ +10VDC (0 ~ 20mA)
	Analog output unit & voltage	4 channels & -10 ~ +10VDC (0 ~ 20mA)
	<b>PLC Programming Software</b>	SIMATIC STEP 7 Professional
	<b>PC Communication Cable</b>	Ethernet cable (1ea)
	<b>Main Frame</b>	1ea
• LS XGT PLC System (CPS-3500UD)		
<b>CPU</b>	Program memory	32K steps
	Self-diagnosis function	Arithmetic operation, memory error, I/O error, battery trouble, abnormal power
	Program port	RS-232C (1-channel), USB (1-channel)
<b>Base module</b>	Number of slot	8ea
<b>Power module</b>	Free Voltage	DC 5V 3A DC 24V 0.6A
<b>Input module</b>	Input 16 points (source)	DC 24V
<b>Output module</b>	Output 16 points	Relay
<b>Analog Input module</b>	Voltage input type (8 channels)	
<b>Analog Output module</b>	Voltage output type (4 channels)	
<b>PLC Programming Software</b>	XG5000	
<b>PC Communication Cable</b>	RS232C or USB cable (1ea)	
<b>Main Frame</b>	1ea	

\* Select one of the four different PLC system: CPS-3500UA, CPS-3500UB, CPS-3500UC and CPS-3500UD

## STANDARD ACCESSORIES

- Power cord : 1ea
- PLC download cable : 1ea
- Connection cable : 1set
- User's guide manual : 1ea

## Integrated System Installation

