

## CP1E

Cost-effective CP1E with Enhanced Expandability for Analog and Temperature Control

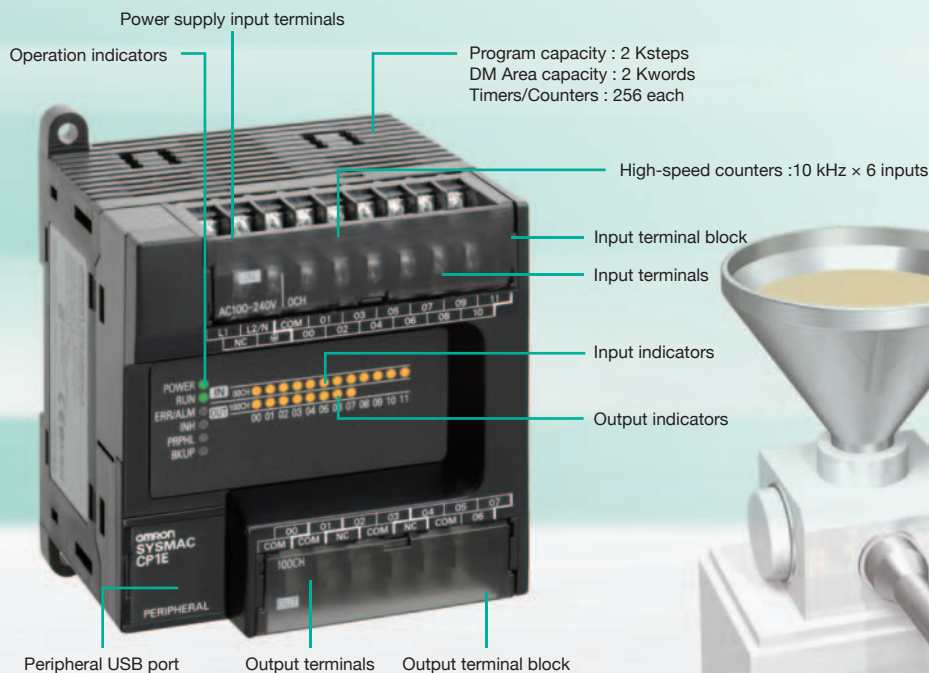


» Easy to use

» Economical

» Efficient

# Cost-Effective, Easy Application, Application to Many Systems



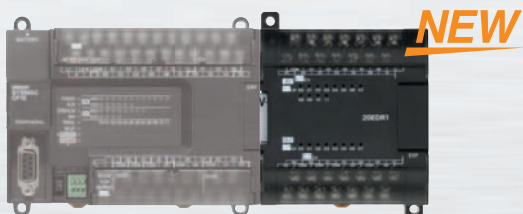
Easy to use

| Support Software with  
"Smart Input" intuitive operation.  
| USB port provides.  
Support Software can be  
connected using commercially  
available USB cables.

## E□□S-type

The Basic Models provide cost performance and easy application.

## Expanded capabilities to control analog I/O and temperature at minimum cost

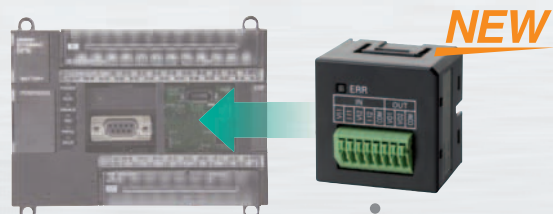


### Analog I/O Units

Up to 8 analog I/O per Unit, high resolution of 1/12,000

### Temperature Sensor Units

Multi-inputs: thermocouple and analog inputs,  
up to 12 thermocouple inputs per Unit



### Analog Option Board

Note: Can be mounted to  
the CP1E-N□□ only.

# Economical

## Exceptional Cost

### Responding to Global Competition with More Device Control Possibilities

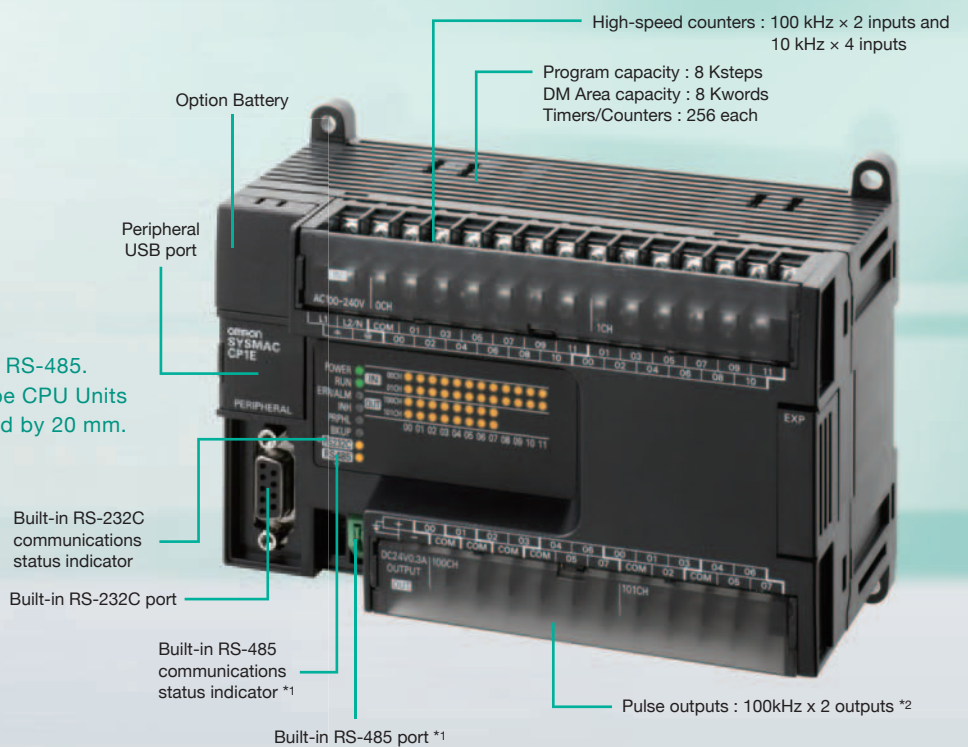
The CP1E provide high cost performance to further reduce costs by allowing you to select the optimal CPU Unit from the E□□S-type Basic Models or N□□S(1)-type Application Models.

## Economical

- | Exceptional Cost.
- | Optimal cost with a selection of two types of CP1E CPU Units.

## Efficient

- | Lineup including CPU Units with built-in three ports: USB, RS-232C, RS-485.
- | The depth of the CP1E-N□□S(1)-type CPU Units with RS-232C connectors is reduced by 20 mm.



\*1. N□□S1-type only.

\*2. Models with transistor outputs.

## N□□S(1)-type

Compatible with small Programmable Terminals and inverter-controlled position control.



# Simple and User Friendly

## Easy to use input editor with smart input function

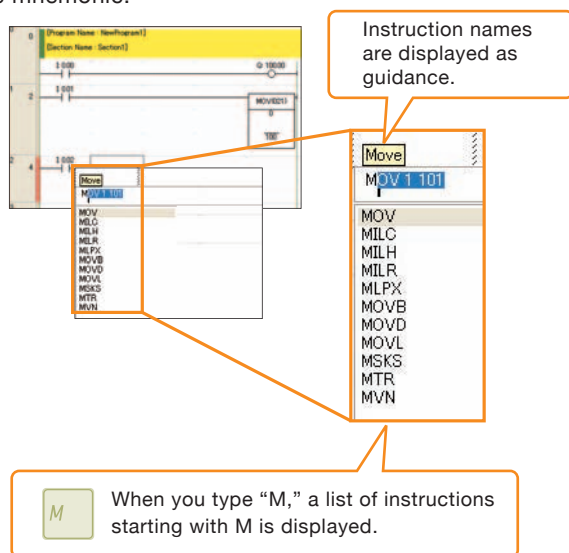
When you begin typing an instruction from the keyboard in Ladder Editor Mode, suggested instructions are displayed and the addresses are automatically entered. Connecting lines are added automatically based on the cursor position, enabling intuitive ladder programming.

**All Models**

### Easy Input Editor

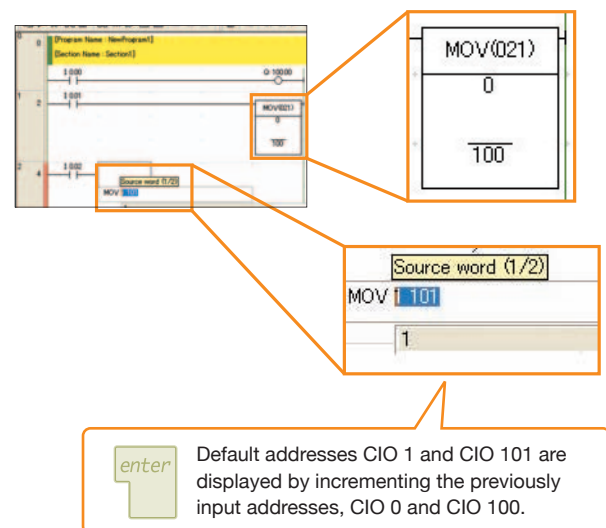
#### Instruction and Address Input Assist Functions

When you begin typing an instruction from the keyboard while in the Ladder Editor Window, suggested instructions are displayed. All you have to do is select the instruction from the list for easy input even if you do not remember the entire mnemonic.



#### Address Incrementing

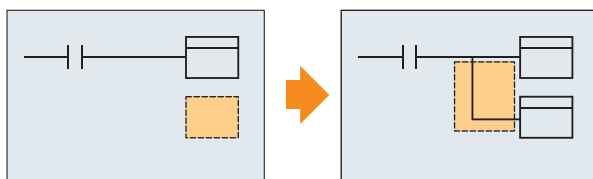
The address of the next operand, including input bits and output bits, is incremented by one and displayed as the default. This enables easily inputting consecutive addresses.



### User-friendly Ladder Program Input

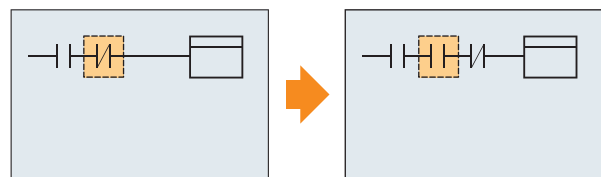
#### Automatic Connecting Line Insertion

With the automatic connecting line insertion function the necessary connection is added automatically based on the cursor position.



#### Automatic Column Insertion When Inserting Instructions

The column is automatically inserted when an instruction is added even if the cursor is above another instruction.

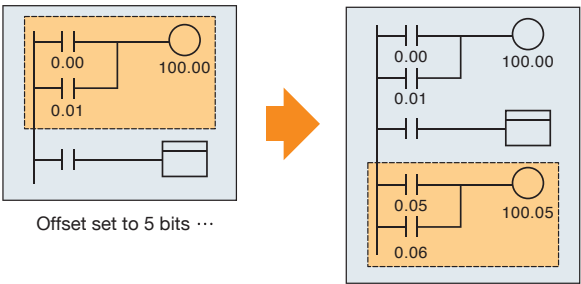


Intuitive control with “Smart Input.”

Easy to reuse ladder programming

□ Copying with Address Incrementing

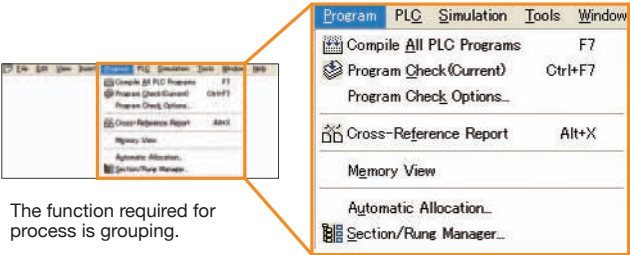
To create the same group of ladder instructions more than once with the address addition copy function, the instructions can be reused simply by inputting an address offset.



Intuitive Menu Structure

□ Intuitive Menu Display

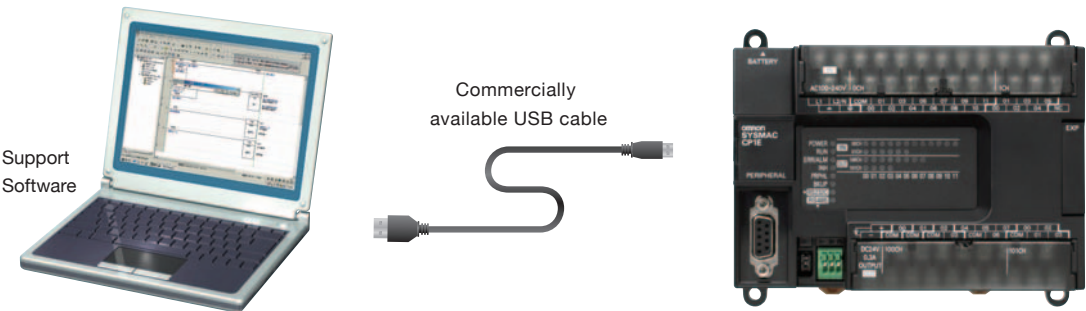
An intuitively designed menu structure makes it easy to see the overall system simply by looking at the menu for smooth operation without referring to a manual.



Only commercially available USB cables required

All CP1E CPU Units use high-speed USB for the peripheral port. Support software (computers) can be connected using commercially available USB cables. Without the need for USB conversion cables or special cables, connection is easier and cable cost is low.

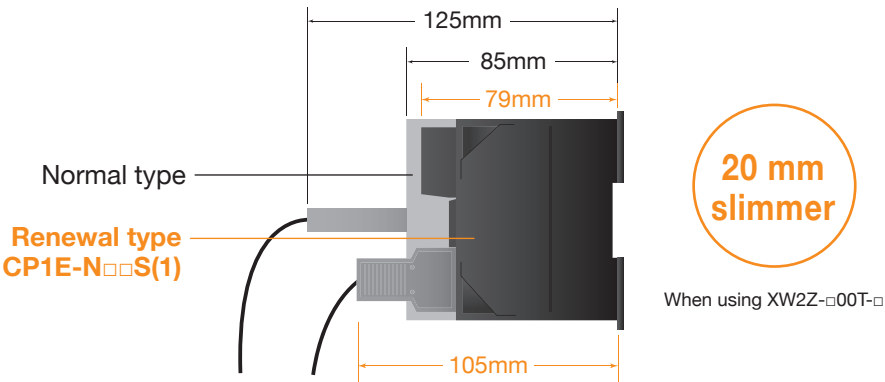
All Models



The depth of CPU Units with RS-232C connectors is reduced by 20 mm

6 mm slimmer than the normal type.

Renewal type



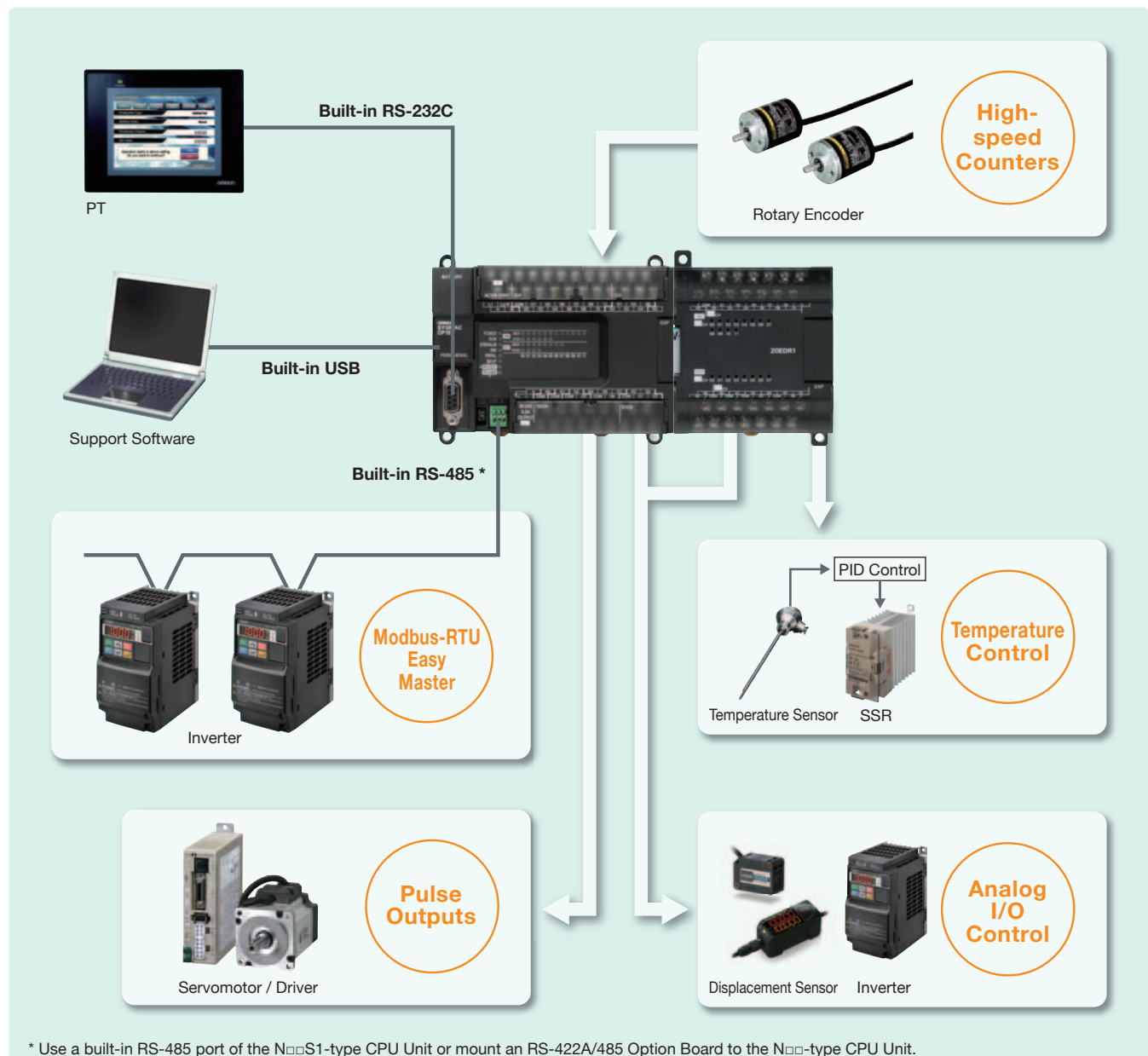
# Efficient and Effective

## More Applications with Advanced Control Capabilities and Functionality

### Application Models

The Application Models (CP1E-N□□ / N□□S(1)) are equipped with high-speed counters, pulse outputs, and a built-in serial port(s).

In addition, using the Expansion Unit and Option Board, you can control a wide range of devices.

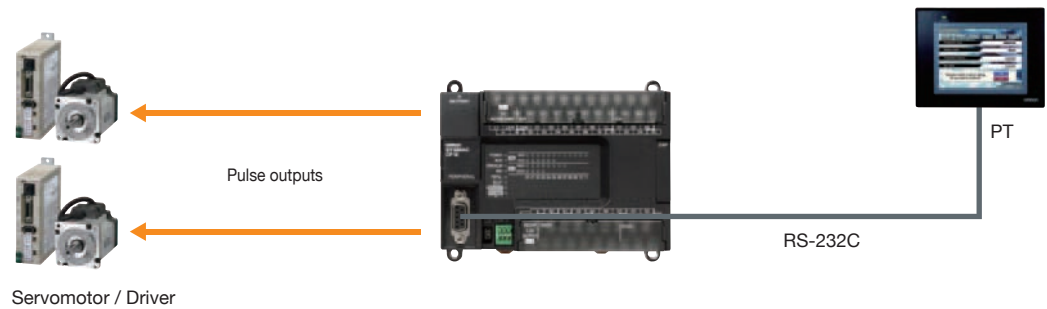


Flexibly handle even small-scale systems.  
Various Option Units available for increased expandability.

## Pulse Outputs

Models with transistor Output

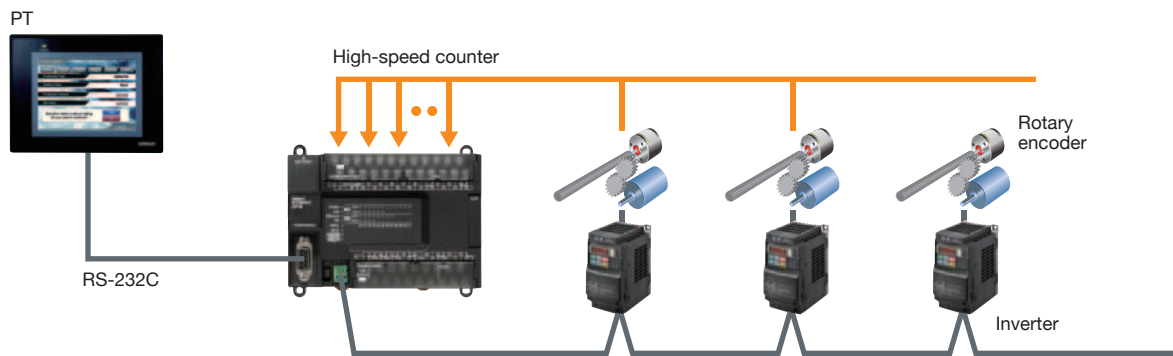
Two 100kHz pulse outputs for high-precision position control.



## High-speed Counters\*

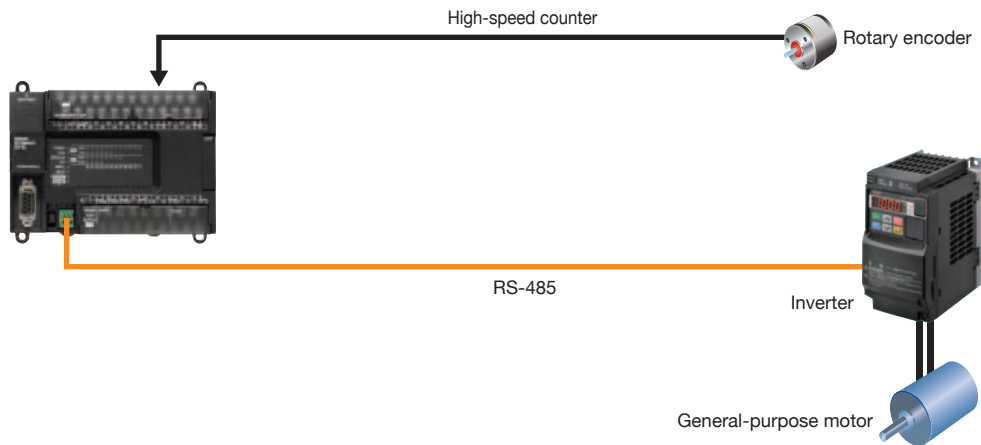
Control multiple axes with one PLC using the two 100kHz and four 10kHz, single-phase high-speed counters.

\* The Basic Models are equipped with six 10kHz, single-phase high-speed counters.



## Modbus-RTU easy master

Specify Inverter speeds via RS-485

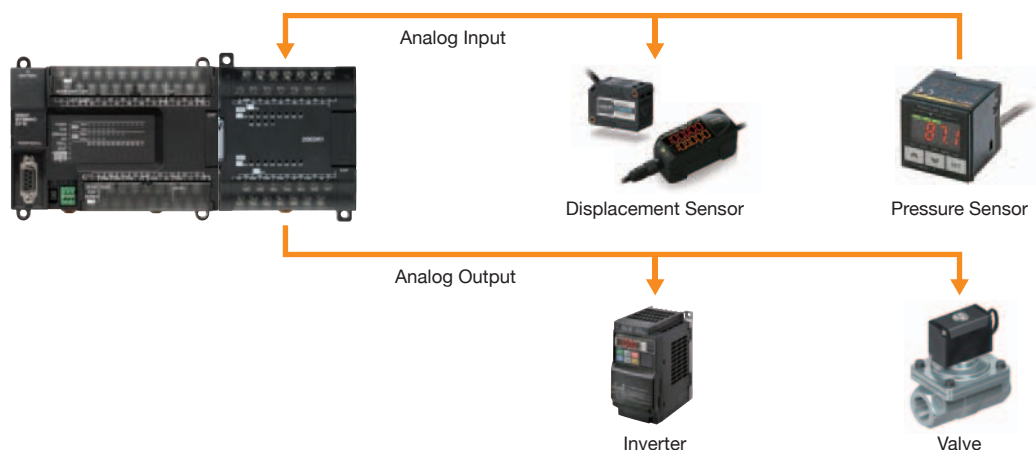


# Efficient and Effective

## Analog I/O Control

High-accuracy analog I/O control with a resolution 1/12,000.

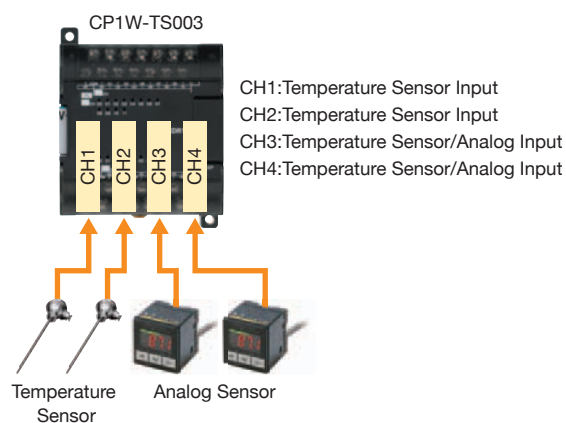
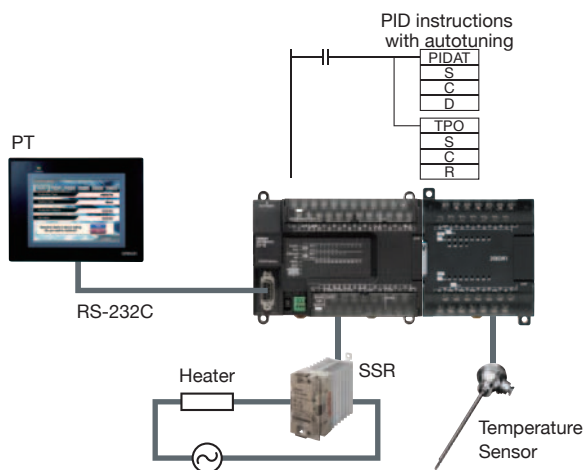
You can add up to 4 analog I/O by mounting an Analog Option Board and up to 24 analog I/O by connecting Expansion Units.



## Temperature Control

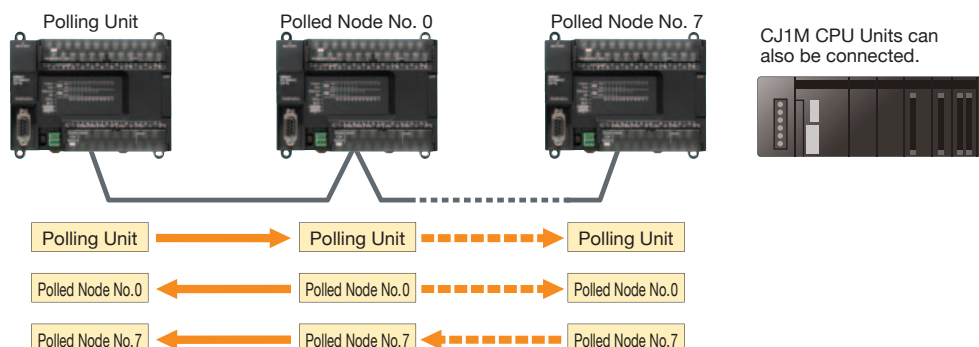
The combination of the Temperature Input Unit with the PID instructions enables temperature control. Up to 12 thermocouple inputs per Unit for CP1W-TS004.

The CP1W-TS003 has two inputs that can be used for temperature sensor or analog inputs. Both temperature sensor and analog inputs can be achieved with only one Unit.



## Serial PLC Links

Link data with up to 10 words between up to nine CP1E-N CPU Units when controlling a device with multiple CP1E-N PLCs.

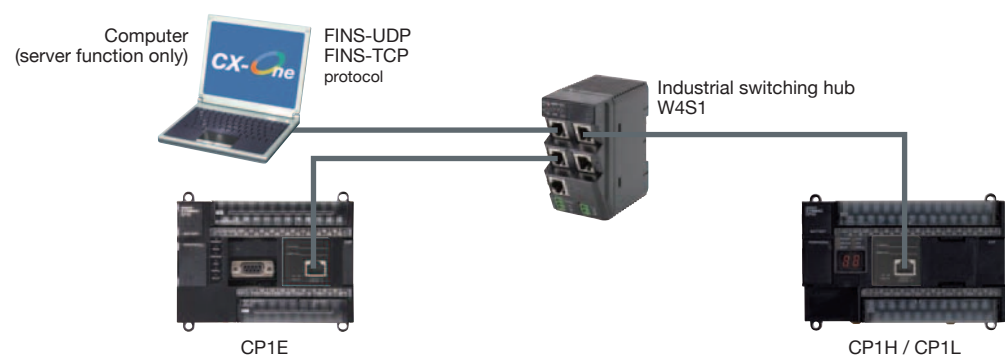




Flexibly handle even small-scale systems.  
 Various Option Units available for  
 increased expandability.

## Ethernet Communications

Mount a CP1W-CIF41 Ethernet Option Board to an option board slot on the CP1E-N/NA type CPU Unit.  
 Perform monitoring and programming with CX-Programmer,or communicate with a host computer via Ethernet.(server function only)



## Optional units for more flexibility

An option board for an additional Serial or Ethernet communication port can be added to the N30/40/60 and NA20 CPU Unit. Three expansion units are available. \* The Option Board cannot be mounted to the CP1E-N□□S/N□□S1.

N30/40/60, NA20 CPU unit

Option Board

RS-232C Option Board  
CP1W-CIF01

RS-422A/485 Option Board  
CP1W-CIF11  
(Maximum transmission distance: 50m)

RS-422A/485 Option Board (Isolated-type)  
CP1W-CIF12  
(Maximum transmission distance: 500m)

Ethernet Option Board  
CP1W-CIF41  
(CP1E PLCs are supported by CP1W-CIF41 version 2.0 or later)

Analog Input Option Board  
CP1W-AD021  
(For CPU Unit version 1.2 or later)

Analog Output Option Board  
CP1W-DA021V  
(For CPU Unit version 1.2 or later)

Analog I/O Option Board  
CP1W-MAB221  
(For CPU Unit version 1.2 or later)

30/40/60, NA20 CPU unit

Expansion Units and Expansion I/O Units

Expansion I/O Units

Units with 40 I/O  
CP1W-40EDR / CP1W-40EDT / CP1W-40EDT1

Units with 20 I/O  
CP1W-20EDR1 / CP1W-20EDT / CP1W-20EDT1

Units with 32 Outputs  
CP1W-32ER / CP1W-32ET / CP1W-32ET1

Units with 16 Outputs  
CP1W-16ER / CP1W-16ET / CP1W-16ET1

Units with 8 Outputs  
CP1W-8ER / CP1W-8ET / CP1W-8ET1

Unit with 8 Inputs  
CP1W-8ED

Analog I/O Units

Analog I/O Unit  
CP1W-MAD11  
CP1W-MAD42 **NEW**  
CP1W-MAD44 **NEW**  
Analog Input Unit  
CP1W-AD041  
CP1W-AD042 **NEW**  
Analog Output Unit  
CP1W-DA021  
CP1W-DA041  
CP1W-DA042 **NEW**

Temperature Sensor Units

Temperature Sensor Units (Thermocouples)  
CP1W-TS001  
CP1W-TS002  
CP1W-TS003 **NEW**  
CP1W-TS004 **NEW**

Temperature Sensor Units (Platinum Resistance Thermometers)  
CP1W-TS101  
CP1W-TS102

CompoBus/S I/O Link Unit

CompoBus/S I/O Link Unit  
CP1W-SRT21

9

# Line up/Variation



















**Selecting the best CPU Unit for your system helps minimize and optimize costs.**

## Line up

Program capacity

8K steps

2K steps

N□□-type CP1E CPU Units Application Models (Option Slot, Built-in 2 ports : RS-232C, USB)																								
Models with flexible communication ports: RS-232C port and one more additional port using option board										Built-in Analog I/O type														
<div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">                     Normal type                 </div>										 N30D□□			 N40D□□			 N60D□□			 NA20D□□					
N□□S1-type CP1E CPU Units Application Models (Built-in 3 ports : RS-232C, RS-485, USB)																								
Models with built-in RS-232C and RS-485 ports to connect with both Inverters and Temperature Controllers																								
<div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center; margin: 0 auto;">                     Renewal type                 </div>													 N30S1D□□			 N40S1D□□			 N60S1D□□					
N□□S-type CP1E CPU Units Application Models (Built-in 2 ports : RS-232C, USB)																								
Standard models with built-in RS-232C port																								
 N14D□□			 N20D□□			 N30SD□□			 N40SD□□			 N60SD□□												
E□□(S)-type CP1E CPU Units Basic Models (Built-in USB port)																								
Basic models suitable for basic I/O control																								
 E10D□□			 E14SDR-A			 E20SDR-A			 E30SDR-A			 E40SDR-A			 E60SDR-A									
Number of I/O		10		14		20		30		40		60		20 <small>(Built-in analog : 2 inputs / 1 output)</small>										

### Basic Models

	E□□ CPU Unit				E□□S CPU Unit			
	Relay outputs		Transistor outputs (sinking/sourcing)		Relay outputs		Transistor outputs (sinking/sourcing)	
	AC	DC	AC	DC	AC	DC	AC	DC
10 I/O points	●	●	●	●	—	—	—	—
14 I/O points	●	—	—	—	●	—	—	—
20 I/O points	●	—	—	—	●	—	—	—
30 I/O points	●	—	—	—	●	—	—	—
40 I/O points	●	—	—	—	●	—	—	—
60 I/O points	—	—	—	—	●	—	—	—

### Application Models

	N□□ CPU Unit RS-232C+1 option slot*				N□□S CPU Unit Built-in RS-232C				N□□S1 CPU Unit Built-in RS-232C+RS-485			
	Relay outputs		Transistor outputs (sinking/sourcing)		Relay outputs		Transistor outputs (sinking/sourcing)		Relay outputs		Transistor outputs (sinking/sourcing)	
	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC	AC	DC
10 I/O points	—	—	—	—	—	—	—	—	—	—	—	—
14 I/O points	●	●	●	●	—	—	—	—	—	—	—	—
20 I/O points	●	●	●	●	—	—	—	—	—	—	—	—
30 I/O points	●	●	●	●	●	—	—	●	●	—	—	●
40 I/O points	●	●	●	●	●	—	—	●	●	—	—	●
60 I/O points	●	●	●	●	●	—	—	●	●	—	—	●
20 I/O points <small>(Built-in Analog)</small>	●	—	—	●	—	—	—	—	—	—	—	—

\* Only N30/40/60 has option slot.

## Variation

	Basic Models		Application Models			
	Renewal type	Normal type	Renewal type		Normal type	Normal type (Built-in Analog)
Model	E□□S 	E□□ 	N□□S 	N□□S1 	N□□ 	NA20 
Program capacity	2K steps	2K steps	8K steps	8K steps	8K steps	8K steps
DM Area capacity	2K words	2K words	8K words	8K words	8K words	8K words
USB port	USB	USB	USB	USB	USB	USB
Built-in Serial port	—	—	RS-232C	RS-232C RS-485	RS-232C	RS-232C
Option Board *1	—	—	—	—	RS-232C RS-422A RS-485 Ethernet Analog	RS-232C RS-422A RS-485 Ethernet Analog
Battery *2 (Optional)	—	—	Battery	Battery	Battery	Battery
Clock	—	—	Clock	Clock	Clock	Clock
High-speed counters (Single-phase)	10kHz x6	10kHz x6	100kHz x2 10kHz x4	100kHz x2 10kHz x4	100kHz x2 10kHz x4	100kHz x2 10kHz x4
High-speed counters (Differential Phase)	5kHz x2	5kHz x2	50kHz x1 5kHz x1	50kHz x1 5kHz x1	50kHz x1 5kHz x1	50kHz x1 5kHz x1
Pulse outputs (transistor output type)	—	—	100kHz x2	100kHz x2	100kHz x2	100kHz x2
Analog adjusters	—	Analog adjusters	—	—	Analog adjusters	Analog adjusters
Built-in analog	—	—	—	—	—	AD 2 DA 1

\*1. For CP1E N30/40/60 or NA20 CPU Units only.

\*2. The CP1W-BAT01 Battery (sold separately) can be mounted

# Ordering information

## International Standards

- The standards are abbreviated as follows: U: UL, U1: UL(Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, KC: KC Registration, and CE: EU Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

## Application models

### ■Renewal type (N□□S1-type) CP1E CPU Units: Built-in 3 ports

Product name	Specifications						Model	Standards
	Power Supply	Inputs	Outputs	Output type	Program capacity	Data memory capacity		
N□□S1-type with 30 I/O Points	100 to 240 VAC	18	12	Relay	8K steps	8K words	CP1E-N30S1DR-A	CE, KC
	24VDC			Transistor (sinking)			CP1E-N30S1DT-D	
				Transistor (sourcing)			CP1E-N30S1DT1-D	
N□□S1-type with 40 I/O Points	100 to 240 VAC	24	16	Relay			CP1E-N40S1DR-A	
	24VDC			Transistor (sinking)			CP1E-N40S1DT-D	
				Transistor (sourcing)			CP1E-N40S1DT1-D	
N□□S1-type with 60 I/O Points	100 to 240 VAC	36	24	Relay			CP1E-N60S1DR-A	
	24VDC			Transistor (sinking)			CP1E-N60S1DT-D	
				Transistor (sourcing)			CP1E-N60S1DT1-D	

### ■Renewal type (N□□S-type) CP1E CPU Units: Built-in 2 ports

Product name	Specifications						Model	Standards
	Power Supply	Inputs	Outputs	Output type	Program capacity	Data memory capacity		
N□□S-type with 30 I/O Points	100 to 240 VAC	18	12	Relay	8K steps	8K words	CP1E-N30SDR-A	CE
	24VDC			Transistor (sinking)			CP1E-N30SDT-D	
				Transistor (sourcing)			CP1E-N30SDT1-D	
N□□S-type with 40 I/O Points	100 to 240 VAC	24	16	Relay			CP1E-N40SDR-A	
	24VDC			Transistor (sinking)			CP1E-N40SDT-D	
				Transistor (sourcing)			CP1E-N40SDT1-D	
N□□S-type with 60 I/O Points	100 to 240 VAC	36	24	Relay			CP1E-N60SDR-A	
	24VDC			Transistor (sinking)			CP1E-N60SDT-D	
				Transistor (sourcing)			CP1E-N60SDT1-D	

### ■Normal type (N/NA□□-type) CP1E CPU Units

Product name	Specifications						Model	Standards
	Power Supply	Inputs	Outputs	Output type	Program capacity	Data memory capacity		
N□□-type with 14 I/O Points	100 to 240 VAC	8	6	Relay	8K steps	8K words	CP1E-N14DR-A	UC1, N, L, CE, KC
	24VDC			Transistor (sinking)			CP1E-N14DT-A	
				Transistor (sourcing)			CP1E-N14DT1-A	
				Relay			CP1E-N14DR-D	
				Transistor (sinking)			CP1E-N14DT-D	
				Transistor (sourcing)			CP1E-N14DT1-D	
N□□-type with 20 I/O Points	100 to 240 VAC	12	8	Relay	8K steps	8K words	CP1E-N20DR-A	
	24VDC			Transistor (sinking)			CP1E-N20DT-A	
				Transistor (sourcing)			CP1E-N20DT1-A	
				Relay			CP1E-N20DR-D	
				Transistor (sinking)			CP1E-N20DT-D	
				Transistor (sourcing)			CP1E-N20DT1-D	
N□□-type with 30 I/O Points	100 to 240 VAC	18	12	Relay	8K steps	8K words	CP1E-N30DR-A	
	24VDC			Transistor (sinking)			CP1E-N30DT-A	
				Transistor (sourcing)			CP1E-N30DT1-A	
				Relay			CP1E-N30DR-D	
				Transistor (sinking)			CP1E-N30DT-D	
				Transistor (sourcing)			CP1E-N30DT1-D	
N□□-type with 40 I/O Points	100 to 240 VAC	24	16	Relay	8K steps	8K words	CP1E-N40DR-A	
	24VDC			Transistor (sinking)			CP1E-N40DT-A	
				Transistor (sourcing)			CP1E-N40DT1-A	
				Relay			CP1E-N40DR-D	
				Transistor (sinking)			CP1E-N40DT-D	
				Transistor (sourcing)			CP1E-N40DT1-D	
N□□-type with 60 I/O Points	100 to 240 VAC	36	24	Relay	8K steps	8K words	CP1E-N60DR-A	
	24VDC			Transistor (sinking)			CP1E-N60DT-A	
				Transistor (sourcing)			CP1E-N60DT1-A	
				Relay			CP1E-N60DR-D	
				Transistor (sinking)			CP1E-N60DT-D	
				Transistor (sourcing)			CP1E-N60DT1-D	
NA-type with 20 I/O Points (Built-in analog)	100 to 240 VAC	12 (Built-in analog inputs : 2)	8 (Built-in analog outputs : 1)	Relay	8K steps	8K words	CP1E-NA20DR-A	
	24VDC			Transistor (sinking)			CP1E-NA20DT-D	
				Transistor (sourcing)			CP1E-NA20DT1-D	

## Basic models

### ■Renewal type (E□□S-type) CP1E CPU Units

Product name	Specifications						Model	Standards
	Power Supply	Inputs	Outputs	Output type	Program capacity	Data memory capacity		
E□□S-type with 14 I/O Points	100 to 240 VAC	8	6	Relay	2K steps	2K words	CP1E-E14SDR-A	CE, KC
E□□S-type with 20 I/O Points		12	8	Relay			CP1E-E20SDR-A	
E□□S-type with 30 I/O Points		18	12	Relay			CP1E-E30SDR-A	
E□□S-type with 40 I/O Points		24	16	Relay			CP1E-E40SDR-A	
E□□S-type with 60 I/O Points		36	24	Relay			CP1E-E60SDR-A	

### ■Normal type (E□□-type) CP1E CPU Units

Product name	Specifications						Model	Standards
	Power Supply	Inputs	Outputs	Output type	Program capacity	Data memory capacity		
E□□-type with 10 I/O Points	100 to 240 VAC	6	4	Relay	2K steps	2K words	CP1E-E10DR-A	UC1, N, L, CE, KC
	24VDC			Transistor (sinking)			CP1E-E10DT-A	
				Transistor (sourcing)			CP1E-E10DT1-A	
				Relay			CP1E-E10DR-D	
				Transistor (sinking)			CP1E-E10DT-D	
				Transistor (sourcing)			CP1E-E10DT1-D	
E□□-type with 14 I/O Points	100 to 240 VAC	8	6	Relay	CP1E-E14DR-A			
E□□-type with 20 I/O Points		12	8	Relay	CP1E-E20DR-A			
E□□-type with 30 I/O Points		18	12	Relay	CP1E-E30DR-A			
E□□-type with 40 I/O Points		24	16	Relay	CP1E-E40DR-A			

## Optional Products

### ■Battery Set

Product name	Specifications	Model	Standards
Battery Set	For N□□/NA-type CP1E CPU Units Note: Mount a Battery to an N□□/NA-type CP1E CPU Unit if the data in the following areas must be backed up for power interruptions. DM Area (D) (except backed up words in the DM Area), Holding Area (H), Counter Completion Flags (C), Counter Present Values (C), Auxiliary Area (A) , and Clock Function.(Use batteries within two years of manufacture.)	CP1W-BAT01	—

### ■Option Boards (for CP1E N30/40/60 or NA20 CPU Units)

Product name	Specifications	Model	Standards
RS-232C Option Board	One RS-232C Option Board can be mounted to the Option Board slot. One RS-232C connector is included.	CP1W-CIF01	UC1, N, L, CE, KC
RS-422A/485 Option Board	One RS-422A/485 Option Board can be mounted to the Option Board slot.	CP1W-CIF11	
RS-422A/485 Isolated-type Option Board	One RS-422A/485 Option Board can be mounted to the Option Board slot.	CP1W-CIF12	
Ethernet Option Board	One Ethernet Option Board can be mounted to the Option Board slot. CP1E CPU Units are supported by CP1W-CIF41 version 2.0 or later. When using CP1W-CIF41, CX-Programmer version 9.12 or higher is required.	CP1W-CIF41	
Analog Input Option Board	Can be mounted in CPU Unit Option Board slot. 2 analog inputs. 0-10V(Resolution:1/4000), 0-20mA (Resolution:1/2000).	CP1W-ADB21*	
Analog Output Option Board	Can be mounted in CPU Unit Option Board slot. 2 analog outputs. 0-10V (Resolution:1/4000).	CP1W-DAB21V*	
Analog I/O Option Board	Can be mounted in CPU Unit Option Board slot. 2 analog inputs. 0-10V(Resolution:1/4000), 0-20mA(Resolution:1/2000). 2 analog outputs. 0-10V (Resolution:1/4000).	CP1W-MAB221*	

Note: It is not possible to use a CP-series Ethernet Option Board version 1.0 (CP1W-CIF41), LCD Option Board (CP1W-DAM01), or Memory Card (CP1W-ME05M) with a CP1E CPU Unit.  
\*. For CP1E CPU Unit version 1.2 or later



# Ordering information

## Optional Products

### ■Expansion I/O Units and Expansion Units (for CP1E N30/40/60 or NA20 CPU Units)

Unit type	Product name	Inputs	Outputs	Specifications	Model	Standards
CP1W Expansion I/O Units	Input Unit	8	—	DC24V Input	<b>CP1W-8ED</b>	U, C, N, L, CE, KC
	Output Units	—	8	Relay	<b>CP1W-8ER</b>	
				Transistor(sinking)	<b>CP1W-8ET</b>	
				Transistor(sourcing)	<b>CP1W-8ET1</b>	
		—	16	Relay	<b>CP1W-16ER</b>	N, L, CE, KC
				Transistor(sinking)	<b>CP1W-16ET</b>	
				Transistor(sourcing)	<b>CP1W-16ET1</b>	
				Relay	<b>CP1W-32ER</b>	
		—	32	Transistor(sinking)	<b>CP1W-32ET</b>	
				Transistor(sourcing)	<b>CP1W-32ET1</b>	
	I/O Units	12	8	Relay	<b>CP1W-20EDR1</b>	U, C, N, L, CE, KC
				Transistor(sinking)	<b>CP1W-20EDT</b>	
				Transistor(sourcing)	<b>CP1W-20EDT1</b>	
		24	16	Relay	<b>CP1W-40EDR</b>	N, L, CE, KC
				Transistor(sinking)	<b>CP1W-40EDT</b>	
				Transistor(sourcing)	<b>CP1W-40EDT1</b>	
CP1W Expansion Units	Analog Input Unit	4CH	—	Input range: 0 to 5 V, 1 to 5 V, 0 to 10 V, ±10 V, 0 to 20 mA, or 4 to 20 mA.	Resolution: 1/6000 <b>CP1W-AD041</b> Resolution: 1/12000 <b>CP1W-AD042</b>	UC1, N, L, CE, KC UC1, N, CE, KC
	Analog Output Unit	—	2CH	Output range: 1 to 5 V, 0 to 10 V, ±10 V, 0 to 20 mA, or 4 to 20 mA.	Resolution: 1/6000 <b>CP1W-DA021</b>	UC1, N, L, CE, KC
		—	4CH		Resolution: 1/6000 <b>CP1W-DA041</b>	UC1, N, CE, KC
		—	—		Resolution: 1/12000 <b>CP1W-DA042</b>	UC1, N, CE, KC
	Analog I/O Unit	2CH	1CH	Input range: 0 to 5 V, 1 to 5 V, 0 to 10 V, ±10 V, 0 to 20 mA, or 4 to 20 mA. Output range: 1 to 5 V, 0 to 10 V, ±10 V, 0 to 20 mA, or 4 to 20 mA.	Resolution: 1/6000 <b>CP1W-MAD11</b>	UC1, N, L, CE, KC
		4CH	2CH		Resolution: 1/12000 <b>CP1W-MAD42</b>	UC1, N, CE, KC
		4CH	4CH		Resolution: 1/12000 <b>CP1W-MAD44</b>	
	Temperature Sensor Unit	2CH	—	Sensor type: Thermocouple (J or K)	<b>CP1W-TS001</b>	UC1, N, L, CE, KC
		4CH	—	Sensor type: Thermocouple (J or K)	<b>CP1W-TS002</b>	
		2CH	—	Sensor type: Platinum resistance thermometer (Pt100 or JPt100)	<b>CP1W-TS101</b>	
		4CH	—	Sensor type: Platinum resistance thermometer (Pt100 or JPt100)	<b>CP1W-TS102</b>	
		4CH	—	Sensor type: Thermocouple (J or K) 2 analog inputs* Input range: 1 to 5 V, 0 to 10 V, 4 to 20 mA.	Resolution: 1/12000 <b>CP1W-TS003</b>	UC1, N, CE, KC
		12CH	—	Sensor type: Thermocouple (J or K)	<b>CP1W-TS004</b>	
	CompoBus/S I/O Link Unit	8	8	CompoBus/S slave	<b>CP1W-SRT21</b>	UC1, N, L, CE, KC
I/O Connecting Cable		80 cm (for CP1W Expansion I/O Units and Expansion Units) Only one I/O Connecting Cable can be used in each PLC.			<b>CP1W-CN811</b>	UC1, N, L, CE

Note: An I/O Connecting Cable (approx. 6 cm) for horizontal connection is provided with CP1W Expansion I/O Units and Expansion Units.

\* Only last two channels can be used as analog input.

## Programming Devices

### ■Support Software

Product name	Specifications	Number of licenses	Media	Model	Standards
FA Integrated Tool Package CX-One Lite Ver.4.□	CX-One Lite is a subset of the complete CX-One package that provides only the Support Software required for micro PLC applications. CX-One Lite runs on the following OS. OS: Windows XP (Service Pack 3 or higher, 32-bit version) / Windows Vista (32-bit/64-bit version) / Windows 7 (32-bit/64-bit version) / Windows 8 (32-bit/64-bit version) / Windows 8.1 (32-bit/64-bit version) / Windows 10 (32-bit/64-bit version) CX-One Lite Ver. 4.□ includes Micro PLC Edition CX-Programmer Ver.9.□.	1 license	DVD *1	<b>CXONE-LT01D-V4</b>	—
FA Integrated Tool Package CX-One Ver.4.□	CX-One is a comprehensive software package that integrates Support Software for OMRON PLCs and components. CX-One runs on the following OS. OS: Windows XP (Service Pack 3 or higher, 32-bit version) / Windows Vista (32-bit/64-bit version) / Windows 7 (32-bit/64-bit version) / Windows 8 (32-bit/64-bit version) / Windows 8.1 (32-bit/64-bit version) / Windows 10 (32-bit/64-bit version) CX-One Ver. 4.□ includes CX-Programmer Ver. 9.□.	1 license *2	DVD	<b>CXONE-AL01D-V4</b>	—

Note: 1. CP1E-E60SDR-A CPU Units are supported by CX-Programmer version 9.42 or higher. When Micro PLC Edition CX-Programmer is used, you need version 9.42 or higher.

The E20/30/40(S), N20/30/40(S□) CPU Units are supported by CX-Programmer version 8.2 or higher.

The E10/14(S), N14/60(S□), and NA20 CPU Units are supported by CX-Programmer version 9.03 or higher.

When Micro PLC Edition CX-Programmer is used, you need version 9.03 or higher.

2. When using CP1W-CIF41, CX-Programmer version 9.□12 or higher is required. N30/40/60, NA20 only.

3. The CX-One and CX-One Lite cannot be simultaneously installed on the same computer.

\*1. The CX-One Lite is also available on CD (CXONE-LT□□C-V4).

\*2. Multi licenses (3, 10, 30, or 50 licenses) and DVD media without licenses are also available for the CX-One.

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