OMRON

THE CP1 FAMILY

Compact machine controllers

» Fast programming with Function Blocks

» Flexible Ethernet connectivity

» Easy positioning functionality

realizing

Think big... start small!

Omron's vast experience in the field of industrial automation has resulted in the creation of the right products for your applications, ranging from simple to more complex automation solutions. The CP1 family of programmable logic controllers provides you with a complete product line-up to automate compact machines and perform any other simple automation tasks, quickly and easily. Programming and operation are consistent with Omron's other modular PLCs. And you are guaranteed the same high quality and reliability that you expect from any Omron product, ensuring that your equipment keeps on giving continuous dependable performance.

Scalable solution

The CP1 family is scalable; this means that you can choose the products with the right level of sophistication to meet your automation needs in terms of functionality, flexibility and pricing. Each of the CP1 family models, the CP1E, CP1L and CP1H, offers the functionality required for complete machine control. Benefits include: easy expansion of I/O, fast and versatile communication, and full positioning capabilities via ready-to-use Function Blocks. The CP1 family uses the same instruction set and professional programming software found in Omron's other modular PLCs.

Answering your needs... precisely

Fast and versatile communication

Flexible, fast and yet cost-effective communication is essential in today's competitive market. This applies in particular to compact PLCs, which not only need to connect with devices inside the machine, but also outside the machine for operating, data-logging and remote access. With this in mind, Omron has given the CP1 family excellent communication capabilities for both serial and Ethernet networking. In addition, Omron provides flexible and economical option boards for serial communication.

Flexible Ethernet connectivity

To meet communication needs over different protocols simultaneously and to easily connect for remote access, our latest CP1L PLC features embedded Ethernet with socket services functionality. This offers, among other things, programmable connectivity to third-party devices and makes this outstanding product the best-in-class machine controller on the market.

Easy positioning functions

The CP1 family is designed to fulfill position control tasks. Up to four axes of servo-drives can be controlled with high-speed pulse outputs, while high-speed pulse inputs can allow the connection of up to four encoders. Control is easily achieved with Function Block or standard functions without the need of specialist motion boards or expansion units. Furthermore, thanks to its fast serial ports, the CP1 family is also capable of performing simple positioning tasks. With the use of Modbus Function Blocks, up to 31 inverters can be controlled and monitored in real-time.

Easy positioning, quick results

The CP1 family is the perfect choice for any application that requires positioning. Whether for conveyor control, point-to-point position control, or non-interpolated pick-and-place systems, the combination of high-speed pulse outputs, variable speed drive control and position feedback will provide all the functionality that you need for your application.

Ideal for position control

When simplicity and ease of use are essential, there is no better solution for your position applications than combining the CP1 family with servos and inverters from Omron's extensive range. The SmartStep 2 servo drive is a perfect partner and offers high performance while keeping things simple and cost effective. With the servo position feedback to the controller for position loop control you can monitor the actual positioning and it can also be used to synchronise with another axis. Omron provides standard functions and Function Blocks for SmartStep 2 and other servo drives to create your application with minimal effort.

Easy variable speed drive control

Variable speed drive control is made easy within the CP1 family by using the serial port(s) and the Easy Modbus Master feature for high-speed communication. Omron Function Blocks enable you to control and monitor up to 31 inverters in real-time simply by configuration of parameters. With the encoders connected to the high-speed counter inputs, the CP1 is able to calculate the exact position to perform accurate positioning easily and quickly. In addition, in the MX2 inverter series, all simple positioning is handled within the drive itself.

Saving you time

For many standard functions Omron provide ready-to-use and tested Function Blocks that allow you to reduce your programming and testing time. With Function Blocks you achieve faster, easier and more structured programming that can also increase machine functionality. Ladder programming still remains the easiest language for many people to use, but for more complex mathematical calculations ‘Structured Text’ (ST) offers greater flexibility. These languages are supported in the CP1L and CP1H. Omron’s software is renowned for its ease of use and intuitive style and CX-One is no exception.

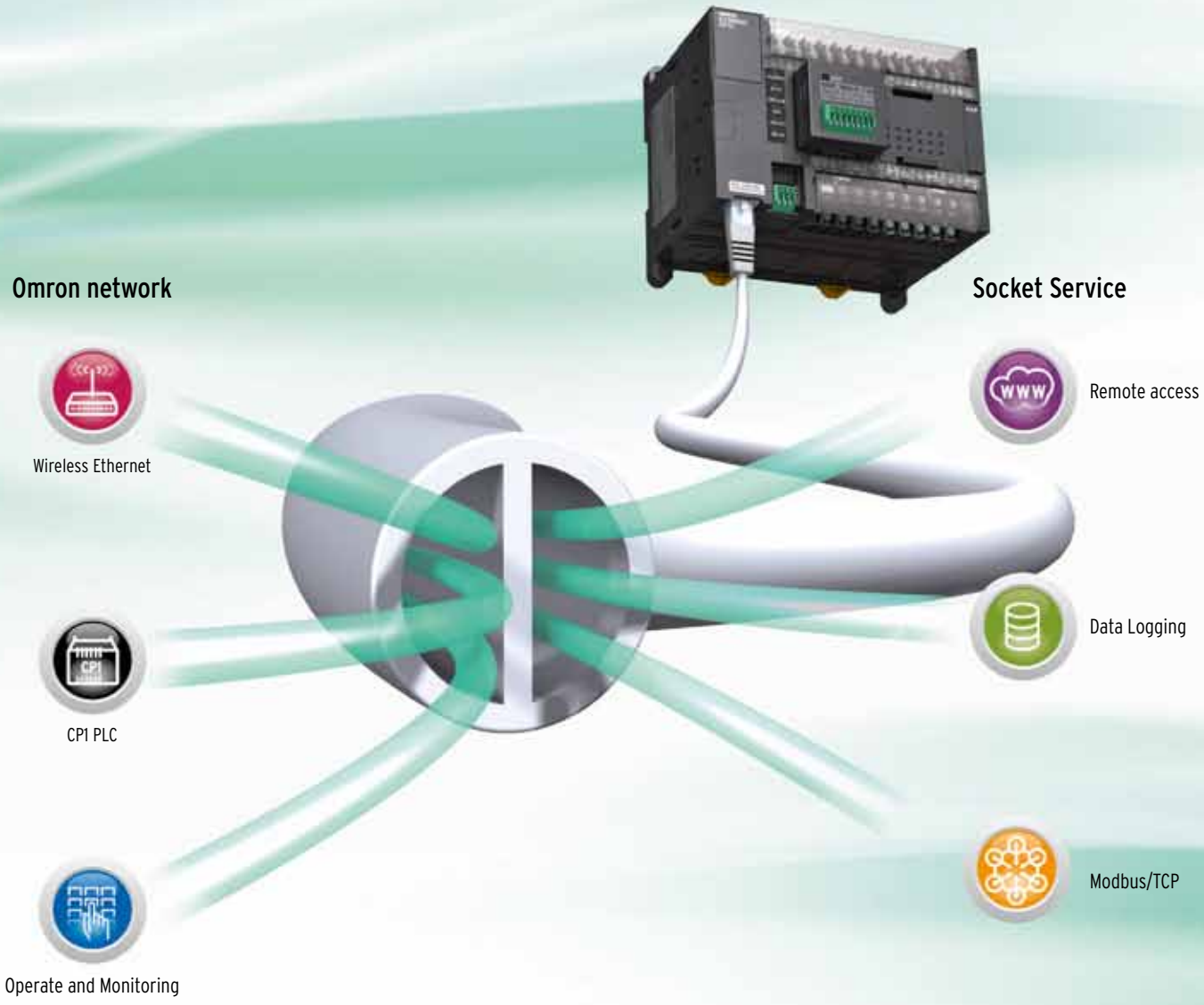
Flexible Ethernet connectivity

As simple and quick– as USB!

Thanks to the CP1L's Automatic-Connect function, programming over Ethernet is as simple as using USB on the other models in the CP1 family. This means that you don't need to waste time adjusting the Ethernet settings on the PC, but that you can simply plug and connect, just like USB. The Automatic-Connect function connects instantly over a default IP address to the CP1L, saving you valuable set-up time.

Versatile communication

Omron's CP1L Ethernet models are equipped as standard with Socket Services. This facilitates the easy exchange of data with other Ethernet devices supporting a dedicated protocol. The Socket Services reduce effort and simplify programming and allow Ethernet protocols to be used directly from your PLC program. Ethernet can also be used for applications that require remote access functionality, such as a secure VPN connection with a standard router.



More options – greater possibilities!

More analogue I/Os

In addition to the two standard embedded analogue inputs, Omron's CP1L with embedded Ethernet also supports three new, optional analogue I/O boards. These enable you to add extra analogue inputs and outputs, and mixed inputs/outputs at minimum cost and without the need for more cabinet space. With its analogue I/O modules, auto-tuning PID function, and the Easy Modbus Master feature to communicating to temperature controllers, the CP1 is ideal for accurate process control.

CP1 family features at a glance

- 10 to 60 I/O base models, expandable to 320 I/O points
- Digital, analogue and temperature sensor I/O expansion units
- 4 to 6 High-speed encoder inputs and 2 to 4 high-speed pulse outputs
- Modbus Master feature for easy inverter or temperature control
- Analogue I/O option boards and auto-tuning PID for accurate process control
- Optional boards for RS-232/RS-422/485/Ethernet or LCD display
- Ladder diagram, Function Block or Structured Text programming
- Powerful instruction set compatible within Omron's modular PLC series
- USB or Ethernet port – no special cables needed
- No-Battery mode operation – retains the program and data

Maximize efficiency by selecting the optimum CPU unit for your applications

			CP1E										
			E-type						N-type				
			CP1E -E10D_-_	CP1E -E14SDR-A	CP1E -E20SDR-A	CP1E -E30SDR-A	CP1E -E40SDR-A	CP1E -E60SDR-A	CP1E -N14D_-_	CP1E -N20D_-_	CP1E -NA20D_-_	CP1E -N30D_-_	CP1E -N40D_-_
I/O	Digital Inputs		6	8	12	18	24	36	8	12	12	18	24
	Digital Outputs		4	6	8	12	16	24	6	8	8	12	16
	Removable Terminals		No						No				
	Total I/O Capacity		10	14	20	150	160	180	14	20	140	150	160
	CP1W Expansion Units		No			Yes (3 max.)			No		Yes (3 max.)		
	CJ-Series Special I/O and CPU Bus Units		No						No				
	Interrupt/Quick/ Counter Inputs		4	6					6				
	High Speed Counter Inputs		5 (10 kHz max.)	6 (10 kHz max.)					2 (100 kHz max.) and 4 (10 kHz max.)				
	Pulse Outputs (transistor outputs models only)		No						2 axes (100 kHz max.)				
	Analog I/O (embedded)		No						No		2 inputs, 1 output	No	
	Analog Adjuster (0-255)		Yes (2)	No					Yes (2)			N_S1D models: No Others: Yes (2)	
	External Analog Settings Input (resolution 1/256)		No						No				
Optional boards	Number of boards supported		0						0		1	N_S1D models: 0 Others: 1	
	Serial Communications (CP1W-CIF01/11/12)		No						No		Yes	N_S1D models: No Others: Yes	
	Ethernet (CP1W-CIF41)		No						No		Yes	N_S1D models: No Others: Yes	
	LCD Display (CP1W-DAM01)		No						No				
	Analog I/O boards		No						No		Yes (only CP1E Ver.1.2)		
CPU details	Programming port		USB						USB				
	RS-232C port (embedded)		No						Yes (1)			Yes (N_S1D models also have RS-485 half-duplex)	
	Function Blocks support (Ladder diagrams or ST language)		No						No				
	Processing Speed (minimum)		1.19 µs/Basic instruction, 7.9 µs/Special instruction						1.19 µs/Basic instruction, 7.9 µs/Special instruction				
	Program Capacity		2K steps						8K steps				
	Data Memory Capacity		2K words						8K words				
	Memory Cassette (CP1W-ME05M)		No						No				
	Real-Time Clock		No						Yes (with optional battery)				
	Battery		No						Optional				
	7-Segment Display		No						No				
Relay Outputs	AC Power Supply		CP1E -E10DR-A	CP1E -E14SDR-A	CP1E -E20SDR-A	CP1E -E30SDR-A	CP1E -E40SDR-A	CP1E -E60SDR-A	CP1E -N14DR-A	CP1E -N20DR-A	CP1E -NA20DR-A	CP1E -N30S1DR-A	CP1E -N40S1DR-A
												CP1E -N30DR-A	CP1E -N40DR-A
	DC Power Supply		CP1E -E10DR-D	–	–	–	–	–	CP1E -N14DR-D	CP1E -N20DR-D	–	CP1E -N30DR-D	CP1E -N40DR-D
Transistor Outputs	Sink Type	DC Power Supply	CP1E -E10DT-D	–	–	–	–	–	CP1E -N14DT-D	CP1E -N20DT-D	CP1E -NA20DT-D	CP1E -N30S1DT-D	CP1E -N40S1DT-D
												CP1E -N30DT-D	CP1E -N40DT-D
	Source Type	DC Power Supply	CP1E -E10DT1-D	–	–	–	–	–	CP1E -N14DT1-D	CP1E -N20DT1-D	CP1E -NA20DT1-D	CP1E -N30S1DT1-D	CP1E- N40S1DT1-D
												CP1E -N30DT1-D	CP1E -N40DT1-D

Note: This table is a general overview only. For details, refer to the CP1E datasheet (Cat. No. P061), CP1L datasheet (Cat. No. P081) or CP1H datasheet (Cat. No. P080).

		CP1L									CP1H		
		L-type			M-type			EL-type	EM-type				
CP1E -N60D_-_		CP1L -L10D_-_	CP1L -L14D_-_	CP1L -L20D_-_	CP1L -M30D_-_	CP1L -M40D_-_	CP1L -M60D_-_	CP1L -EL20D_-_	CP1L -EM30D_-_	CP1L -EM40D_-_	CP1H -Y20DT-D	CP1H -X40D_-_	CP1H -XA40D_-_
36		6	8	12	18	24	36	12	18	24	12	24	24
24		4	6	8	12	16	24	8	12	16	8	16	16
		No			Yes			No	Yes		Yes		
180		10	54	60	150	160	180	60	150	160	300	320	320
		No	Yes (1 max.)		Yes (3 max.)			Yes (1 max.)	Yes (3 max.)		Yes (7 units or 15 input words/ 15 output words max.)		
		No						No			Yes (2 max.)		
		2	4	6				6			6	8	
		4 (100 kHz max.)						4 (100 kHz max.)			2 (100 kHz max.) and 2 Line-driver (1 MHz)	4 (100 kHz max.)	
		2 axes (100 kHz max.)						2 axes (100 kHz max.)			2 (100 kHz max.) and 2 Line-driver (1 MHz)	4 axes (100 kHz max.)	
		No						2 inputs			No		4 inputs, 2 outputs
		Yes (1)						No			Yes (1)		
		Yes (0 to 10 V)						No			Yes (0 to 10 V)		
		0	1		2			1	2		2		
		No	Yes					Yes			Yes		
		No	Yes					No			Yes		
		No	Yes					Yes			Yes		
		No						Yes			No		
		USB						Ethernet			USB		
		No						No			No		
		Yes						Yes			Yes		
		0.55 µs/Basic instruction, 4.1 µs/Special instruction						0.55 µs/Basic instruction, 4.1 µs/ Special instruction			0.10 µs/Basic instruction, 0.15 µs/ Special instruction		
		5K steps			10K steps			5K (+10K FB) steps	10K (+10K FB) steps		20K steps		
		10K words			32K words			10K words	32K words		32K words		
		Yes						Yes			Yes		
		Yes						Yes			Yes		
		Yes						Yes			Yes		
		No						No			Yes		
CP1E -N60S1DR-A		CP1L -L10DR-A	CP1L -L14DR-A	CP1L -L20DR-A	CP1L -M30DR-A	CP1L -M40DR-A	CP1L -M60DR-A	–	–	–	–	CP1H -X40DR-A	CP1H -XA40DR-A
CP1E -N60DR-A													
CP1E -N60DR-D		CP1L -L10DR-D	CP1L -L14DR-D	CP1L -L20DR-D	CP1L -M30DR-D	CP1L -M40DR-D	CP1L -M60DR-D	CP1L -EL20DR-D	CP1L -EM30DR-D	CP1L -EM40DR-D	–	–	–
CP1E -N60S1DT-D		CP1L -L10DT-D	CP1L -L14DT-D	CP1L -L20DT-D	CP1L -M30DT-D	CP1L -M40DT-D	CP1L -M60DT-D	CP1L -EL20DT-D	CP1L -EM30DT-D	CP1L -EM40DT-D	CP1H -Y20DT-D	CP1H -X40DT-D	CP1H -XA40DT-D
CP1E -N60DT-D													
CP1E -N60S1DT1-D		CP1L -L10DT1-D	CP1L -L14DT1-D	CP1L -L20DT1-D	CP1L -M30DT1-D	CP1L -M40DT1-D	CP1L -M60DT1-D	CP1L -EL20DT1-D	CP1L -EM30DT1-D	CP1L -EM40DT1-D	–	CP1H -X40DT1-D	CP1H -XA40DT1-D
CP1E -N60DT1-D													

Expansion units

Expansion I/O Units

CP1W-8ED
DC inputs: 8

CP1W-8ER
Relay outputs: 8

CP1W-8ET
Transistor outputs (sinking): 8

CP1W-8ET1
Transistor outputs (sourcing): 8

CP1W-16ER
Relay outputs: 16

CP1W-16ET
Transistor outputs (sinking): 16

CP1W-16ET1
Transistor outputs (sourcing): 16

CP1W-20EDR1
DC inputs: 12
Relay outputs: 8

CP1W-20EDT
DC inputs: 12
Transistor outputs (sinking): 8

CP1W-20EDT1
DC inputs: 12
Transistor outputs (sourcing): 8

CP1W-32ER
Relay outputs: 32

CP1W-32ET
Transistor outputs (sinking): 32

CP1W-32ET1
Transistor outputs (sourcing): 32

CP1W-40EDR
DC inputs : 24
Relay outputs: 16

CP1W-40EDT
DC inputs: 24
Transistor outputs (sinking): 16

CP1W-40EDT1
DC inputs: 24
Transistor outputs (sourcing): 16

Analog I/O Units

Analog Input Unit

CP1W-AD042
Inputs: 4 (12,000 resolution)

Analog Output Unit

CP1W-DA021
Outputs: 2 (6,000 resolution)

CP1W-DA042
Outputs: 4 (12,000 resolution)

Analog I/O Unit

CP1W-MAD11
Inputs: 2 (6,000 resolution)
Output: 1 (6,000 resolution)

CP1W-MAD42
Inputs: 4 (12,000 resolution)
Outputs: 2 (12,000 resolution)

CP1W-MAD44
Inputs: 4 (12,000 resolution)
Outputs: 4 (12,000 resolution)

Temperature Sensor Unit

CP1W-TS001
Thermocouple inputs: 2

CP1W-TS003
Thermocouple inputs: 4
Analog inputs: 2 (instead of 2 thermocouple inputs)

CP1W-TS004
Thermocouple inputs: 12

CP1W-TS101
Platinum-resistance thermometer inputs: 2

CP1W-TS102
Platinum-resistance thermometer inputs: 4

CompoBus/S I/O Link Unit

CP1W-SRT21
Inputs: 8 bits
Outputs: 8 bits

DeviceNet I/O Link Unit

CPM1A-DRT21
Inputs: 32 bits
Outputs: 32 bits

PROFIBUS-DP I/O Link Unit

CPM1A-PRT21
Inputs: 16 bits
Outputs: 16 bits

Optional Boards

CP1W-CIF01
RS-232C
(15 m max.)

CP1W-CIF11
RS-422A/485
(50 m max.)

CP1W-CIF12
RS-422A/485
(Isolated-type)
(500 m max.)

CP1W-CIF41
Ethernet

CP1W-DAM01
Display 4 rows,
12 characters

CP1W-ADB21
Analog 2 inputs,
0-10 V, 0-20 mA

CP1W-DAB21V
Analog
2 outputs, 0-10 V

CP1W-MAB221
Analog 2 inputs
0-10 V, 0-20 mA &
2 outputs 0-10 V

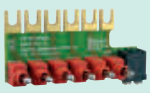
USB Programming Cable

CP1W-CN221
A-type male to B-type male,
Length: 1,8 m

Memory Cassette

CP1W-ME05M
512K words
(upload/download program)

Switch Input Board



CP1W-SWB06

Battery Set

CP1W-BAT01

CJ Unit Adapter

CP1W-EXT01
CJ Unit adapter for use with CP1H.
Includes CJ endplate.

I/O Connecting Cable

CP1W-CN811
Length: 80 cm

CP1W/CPM1A Expansion Units include I/O Connection Cables (in lengths of approx. 6 cm) for side-by-side connection.

Note 1: This table is a general overview only. For details, refer to the CP1E datasheet (Cat. No. P061), CP1L datasheet (Cat. No. P081) or CP1H datasheet (Cat. No. P080).
Note 2: CPM1A Expansion Unit and Expansion I/O Units can be used with CP1H, CP1L or CP1E CPU Units under the same conditions as for the CP1W.

Software

		Media	Order code
CX-One FULL	Single user licence	Licence only	CXONE-AL01-EV4
	Three user licence	Licence only	CXONE-AL03-EV4
	Ten user licence	Licence only	CXONE-AL10-EV4
	Software only	DVD	CXONE-DVD-EV4
CX-One LITE	Single user licence	Licence only	CXONE-LT01-EV4
	Software only	CD	CXONE-LTCD-EV4

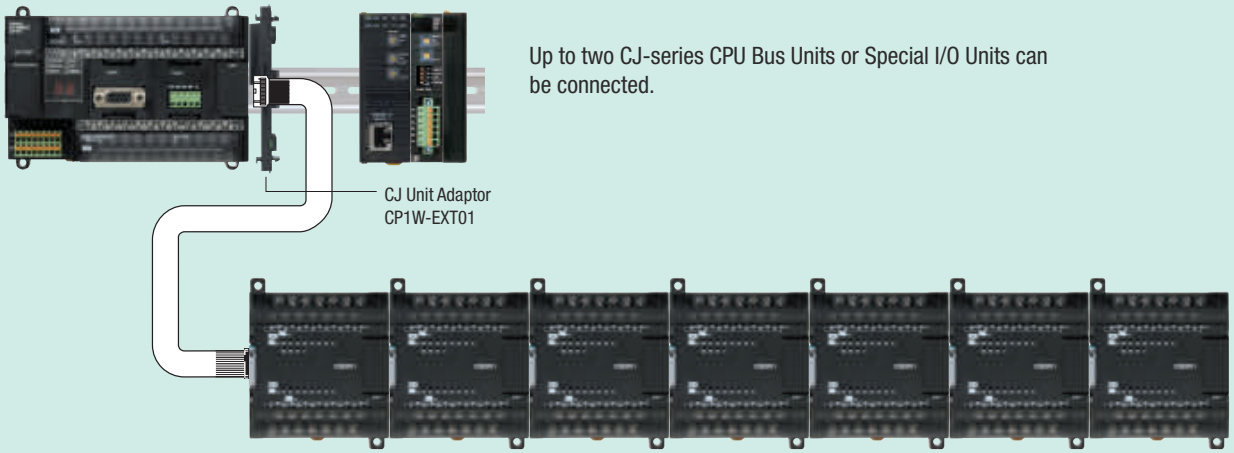
CX-One LITE includes: CX-Programmer, CX-Designer, CX-Simulator, CX-Drive, CX-Thermo, CX-Sensor, CX-Integrator, CX-Server, CX-ConfiguratorFDT, NV-Designer, FB/SAP, PLC Tools/Utilities.

Supported PLCs: CP1E, CP1L, CP1H, CPM1, CPM1A, CPM2A, CPM2C, SRM1.

CX-One supported OS: Windows 8, Windows 7, Windows Vista®, Windows XP (SP3).

Note: Except for Windows XP 64-bit version.

Using CJ-series units and CP1W units with the CP1H



Up to two CJ-series CPU Bus Units or Special I/O Units can be connected.

Up to 7 CP1W Expansion Units and Expansion I/O Units can be connected.

CP1W Expansion Units and Expansion I/O Units and CJ Units can be used simultaneously.
CP1W-CN811 I/O Connecting Cable is required.

CJ-Series Units for use with CP1H

	Description	Order code
Analog I/O and Control Units	Universal Analog Input Unit	CJ1W-AD04U
	Analog Input Unit	CJ1W-AD041-V1
		CJ1W-AD042
		CJ1W-AD081-V1
	Analog Output Unit	CJ1W-DA021
		CJ1W-DA041
		CJ1W-DA042V
		CJ1W-DA08V
		CJ1W-DA08C
	Analog Input/Output Unit	CJ1W-MAD42
	Universal Analog Input Unit	CJ1W-PH41U
	Process Input Unit	CJ1W-PDC15
	Thermocouple Input Unit	CJ1W-PTS15
		CJ1W-PTS51
	Resistance Thermometer Input Unit	CJ1W-PTS16
		CJ1W-PTS52
	Temperature Control Loops, Thermocouple Unit	CJ1W-TC001
		CJ1W-TC002
		CJ1W-TC003
		CJ1W-TC004
	Temperature Control Loops, RTD	CJ1W-TC101
		CJ1W-TC102
		CJ1W-TC103
		CJ1W-TC104
Motion/Position Control Units	SSI Input Unit	CJ1W-CTS21-E
	High Speed Counter Unit	CJ1W-CT021
	4-Channel Counter Unit	CJ1W-CTL41-E
	24 VDC Motor Control Unit	CJ1W-DCM11-E

	Description	Order code
Motion/Position Control Units	Position Control Units	CJ1W-NC113
		CJ1W-NC133
		CJ1W-NC213
		CJ1W-NC233
		CJ1W-NC413
		CJ1W-NC433
	MECHATROLINK-II Position Control Unit	CJ1W-NCF71
		CJ1W-NCF71-MA
		CJ1W-NC271
		CJ1W-NC471
	MECHATROLINK-II Motion Control Unit	CJ1W-MCH71
Communication Units	Serial Communication Units	CJ1W-SCU21-V1
		CJ1W-SCU22
		CJ1W-SCU31-V1
		CJ1W-SCU32
		CJ1W-SCU41-V1
		CJ1W-SCU42
	Ethernet Unit	CJ1W-ETN21
	EtherNet/IP Unit	CJ1W-EIP21
	High-speed Data Logging Unit	CJ1W-SPU01-V2
	DeviceNet Master Unit	CJ1W-DRM21
	CompoNet Master Unit	CJ1W-CRM21
	CompoBus/S Master Unit	CJ1W-SRM21
	PROFINET I/O Controller Unit	CJ1W-PNT21
	PROFIBUS DP-V1 Master Unit	CJ1W-PRM21
	PROFIBUS DP Slave Unit	CJ1W-PRT21
	Controller Link Unit	CJ1W-CLK23
	CAN Communication Unit	CJ1W-CORT21
Control Units	RFID Sensor Controller Unit	CJ1W-V680C11
		CJ1W-V680C12
		CJ1W-V600C11
		CJ1W-V600C12

OMRON EUROPE B.V. Wegalaan 67-69, NL-2132 JD, Hoofddorp, The Netherlands. Tel: +31 (0) 23 568 13 00 Fax: +31 (0) 23 568 13 88 industrial.omron.eu

Austria
Tel: +43 (0) 2236 377 800
industrial.omron.at

Belgium
Tel: +32 (0) 2 466 24 80
industrial.omron.be

Czech Republic
Tel: +420 234 602 602
industrial.omron.cz

Denmark
Tel: +45 43 44 00 11
industrial.omron.dk

Finland
Tel: +358 (0) 207 464 200
industrial.omron.fi

France
Tel: +33 (0) 1 56 63 70 00
industrial.omron.fr

Germany
Tel: +49 (0) 2173 680 00
industrial.omron.de

Hungary
Tel: +36 1 399 30 50
industrial.omron.hu

Italy
Tel: +39 02 326 81
industrial.omron.it

Netherlands
Tel: +31 (0) 23 568 11 00
industrial.omron.nl

Norway
Tel: +47 (0) 22 65 75 00
industrial.omron.no

Poland
Tel: +48 22 458 66 66
industrial.omron.pl

Portugal
Tel: +351 21 942 94 00
industrial.omron.pt

Russia
Tel: +7 495 648 94 50
industrial.omron.ru

South Africa
Tel: +27 (0)11 579 2600
industrial.omron.co.za

Spain
Tel: +34 913 777 900
industrial.omron.es

Sweden
Tel: +46 (0) 8 632 35 00
industrial.omron.se

Switzerland
Tel: +41 (0) 41 748 13 13
industrial.omron.ch

Turkey
Tel: +90 212 467 30 00
industrial.omron.com.tr

United Kingdom
Tel: +44 (0) 870 752 08 61
industrial.omron.co.uk

More Omron representatives
industrial.omron.eu

Automation Systems
• Programmable logic controllers (PLC) • Human machine interfaces (HMI) • Remote I/O
• Industrial PC's • Software

Motion & Drives
• Motion controllers • Servo systems • Inverters • Robots

Control Components
• Temperature controllers • Power supplies • Timers • Counters • Programmable relays
• Digital panel indicators • Electromechanical relays • Monitoring products • Solid-state relays
• Limit switches • Pushbutton switches • Low voltage switch gear

Sensing & Safety
• Photoelectric sensors • Inductive sensors • Capacitive & pressure sensors
• Cable connectors • Displacement & width-measuring sensors • Vision systems
• Safety networks • Safety sensors • Safety units/relay units • Safety door/guard lock switches

CD_EU-02+CPI-family+brochure

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Controllers ***category:***

Click to view products by Omron ***manufacturer:***

Other Similar products are found below :

61FGPN8DAC120 CV500SLK21 70177-1011 F03-03 HAS C F03-31 81550401 FT1A-C12RA-W 88981106 H2CAC24A H2CRSAC110B R88A-CRGB003CR-E R88ARR080100S R88A-TK01K DCN1-1 DRT2ID08C DTB4896VRE DTB9696CVE DTB9696LVE E53-AZ01 E53E01 E53E8C E5C4Q40J999FAC120 E5CWLQ1TCAC100240 E5GNQ03PFLKACDC24 B300LKL21 NSCXDC1V3 NSH5-232CW-3M NT20SST122BV1 NV-CN001 OAS-160-N C40PEDRA K31S6 K33-L1B K3MA-F 100-240VAC K3TX-AD31A 89750101 L595020 SRM1-C02 SRS2-1 FT1A-C14SA-S G32X-V2K 26546803 26546805 PWRA440A CPM1AETL03CH CV500SLK11 3G2A5BI081 3G2A5IA122 3G2A5LK010E 3G2A5OA223