



High-Speed Micro PLC Offers Powerful Position Control and Communications Capability

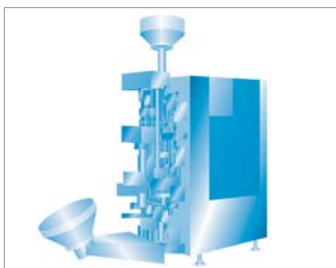
- Position control models have pulse outputs for 4 axes of servo motion control
- Built-in analog I/O models (4 inputs/2 outputs) integrate process data with sequential control
- Multi-axis counter inputs (up to 4) enable calculations for inverter positioning and drive chain control
- Expand the CP1H system using CPM1A expansion I/O units and CJ1 Special I/O modules
- One software (CX-One) and one connection point allows all Omron devices connected to CP1H via Ethernet, DeviceNet, Serial or MECHATROLINK-II to be configured, programmed and monitored
- CX-Programmer Jr. software, economical package for simple ladder diagram programming
- Built-in USB and peripheral ports and two sockets for serial communications boards simplify direct connection to serial devices and programming tools
- Network communication capabilities: Serial, Profibus-DP, DeviceNet and Omron's CompoBus/S Simplified connection for inverter speed control uses Modbus-RTU Easy Master.

Specifications

- I/O capacity: 40 I/O on CPU; 320 I/O max.; DC inputs only
- Program capacity: 20K steps
- Processing speed: 0.1µs (using Load instruction)
- Communications: USB and peripheral ports; two sockets for plug-in serial boards (RS-232C and RS-422/485 available)
- Real-time clock: Yes
- Supply voltage: 100 to 240 VAC/24 VDC; 24 VDC (CP1H-Y)
- Dimensions: 110 H x 150 W x 85 D mm
- Ratings: UL, cUL and CE; UL Class I, Division 2, Groups A, B, C and D for use in hazardous locations

Applications

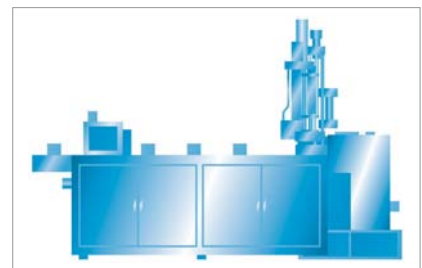
Using Built-in Position Control and Analog I/O Functions



Pulse outputs control up to four servos in a vertical pillow packaging machine



Differential phase counters control up to 4-axis positioning in building material fabrication



Control and monitor analog I/O (4 IN/2 OUT) to maintain oil pressure in forming equipment

Ordering Information

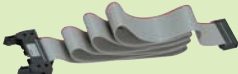
CP1H Controller CPU

Item	No. of I/O points	Input voltage	Built-in capabilities	No. of inputs	No. of outputs	Output type	Model
Standard CPU 	40	100-240 VAC, 50/60 Hz	4 encoder inputs (100 kHz) 8 Interrupts/Counters	24 DC	16	Relay	CP1H-X40DR-A
		24 VDC	4 encoder inputs (100 kHz) 4 Pulse outputs:	24 DC	16	NPN transistor (sinking)	CP1H-X40DT-D
		24 VDC	2 x 100 kHz, 2 x 30 kHz 8 interrupts/counters	24 DC	16	PNP transistor (sourcing)	CP1H-X40DT1-D
CPU with analog I/O built in 	40	100-240 VAC, 50/60 Hz	4 Analog inputs, 2 Analog outputs (1/12,000 resolution); 4 encoder inputs (100 kHz) 8 Interrupts/Counters	24 DC	16	Relay	CP1H-XA40DR-A
		24 VDC	4 Analog inputs, 2 Analog outputs (1/12,000 resolution) 4 encoder inputs (100 kHz)	24 DC	16	NPN transistor (sinking)	CP1H-XA40DT-D
		24 VDC	4 Pulse outputs: 2 x 100 kHz, 2 x 30 kHz 8 interrupts/counters	24 DC	16	PNP transistor (sourcing)	CP1H-XA40DT1-D
CPU with high-speed position control 	20	24 VDC	4 encoder inputs: 2 x 1 MHz, 2 x 100 kHz 4 Pulse outputs 2 x 1 MHz, 2 x 30 kHz 4 Line driver inputs: 2 input side; 2 output side 6 interrupts/counters	12 DC	8	NPN transistor (sinking)	CP1H-Y20DT-D

Communications Option Boards

Item	Appearance	Description	Model
RS-232C Option board		Converts CPU unit option port for RS-232C devices; use up to 2 per CPU.	CP1W-CIF01
RS-422/RS-485 Option board		Converts CPU unit option port for RS-422/RS-485 devices; use up to 2 per CPU.	CP1W-CIF11
Memory cassette		Use to back up programs or auto-booting	CP1W-ME05M

I/O Expansion Tools

Item	Appearance	Description	Cable length	Model
I/O Connecting Cable		Use the cable to connect CPM1A Expansion I/O Units when using the CJ Unit Adapter.	80 cm	CP1W-CN811
CJ Unit Adapter		Connects 2 CJ1W Special I/O or Communications modules to CP1H.	--	CP1W-EXT01

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OMRON ELECTRONICS LLC
877.486.6766
www.omron.com/oei

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416.286.6465
www.omron.ca

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