

C200HW-MC402-E

Motion control unit

Advanced multi-axes motion control made perfectly intuitive

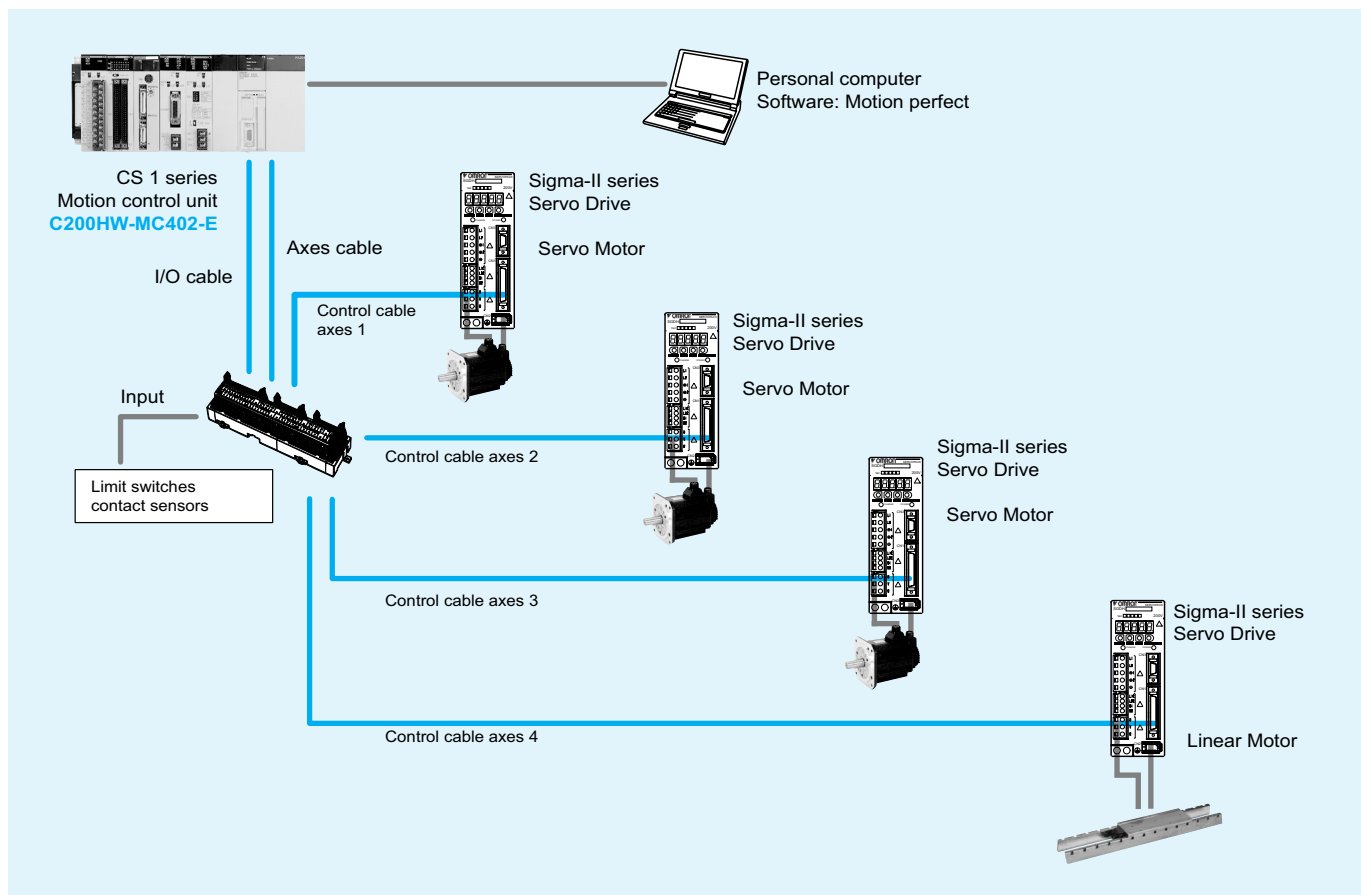
- Advanced motion control of 4 real axes and 4 virtual axes per unit. Up to 16 modules can be installed in one PLC
- Analogue outputs for close loop position and speed control
- Simple to develop and modify using BASIC
- Multi-tasking programming
- Hardware registration input for every axis
- Electronic CAM profiles and axes synchronization
- Friendly motion perfect Windows-based programming and debugging software. Provides versatile test and monitoring functions including a 4-channel software oscilloscope.



Function

The advanced motion control unit provides closed-loop control of up to 4 axes, it is programmed in a multi-task BASIC type language and supported by the powerful software tool. The unit provides a complete command set, allowing applications such as flying saws, rotating knives, any synchronization and electronic CAM profile to be easily programmed.

System configuration



Specifications

Model		C200HW-MC402-E
Classification		C200H special I/O unit
Control output signals		Analogue
Programming language		BASIC type motion control language
Basic specifications	Power supply voltage	5 VDC (supplied from backplane). 24 VDC (supplied from external power supply)
	Approx. mass	500 g
	External dimensions	130x34.5x100.5 mm (HxWxD)
Functional specifications	Controlled axes	4 real axes 4 virtual axes
	Control method	Closed loop with incremental encoder and with PID and speed command outputs
	Servo loop cycle	1.0 ms
	Speed control	Speed control of up to 4 axes. Up to 1 MHz pulse input frequency after quadrature
	Measurement units	User definable
Motion control	Linear interpolation	4 axes
	Circular interpolation	For any 2 axes
	Helical interpolation	For any 3 axes
	Axes synchronization	For any 2 axes
	Axes linked CAM profile	For any 2 axes
	Hardware registration interrupt	4 axes
	Acceleration/deceleration curves	Trapezoidal or S-curve
Task programming capacity	Number of tasks	Up to 5 tasks simultaneous plus interface task
	Number of programs	14
	Data storage capacity	251 (VR) + 16000 (table) max.
External I/O	Encoder input	Line driver receiver inputs for 4 axes (1 MHz after quadrature)
	Servo drive relationships	The following signals are provided per axis Inputs: Drive alarm signal Outputs: Drive enable (RUN or SERVO ON) Drive alarm reset SPEED command
	Digital inputs	Up to 16 digital inputs can be wired to control MC unit functions. These include limit switches, rapid stop switches and proximity inputs.
	Digital outputs	Total of 8 digital outputs can be wired and used for position dependent switching or other general purposes.
	Registration inputs	Each axis has a registration input that can be used to record the current position of the encoder feedback signals in hardware for use within the software environment
Serial communications	RS-232C	Connection to PC (motion perfect software)

Motion perfect software

Model	Motion perfect
Supported MC units	C200HW-MC402-E, R88A-MCW151-E, R88A-MCW151-DRT-E
Applicable computer	Windows 95/98/2000/NT4.0
Functions	Programming and debugging software tool. Test and monitoring functions including a 4-channel software oscilloscope.

Ordering information

Motion controller unit

Name	Model
4 axes advanced motion controller	C200HW-MC402-E

Serial cable

Name	Model
Programming cable	2 m R88A-CCM002P4-E

Terminal block and cables to motion controller unit

Description	Model
Terminal block for MC402 unit	- R88A-TC04-E
PLC unit control cable (I/O signals)	1 m R88A-CMX001S-E
PLC unit control cable (axes control)	1 m R88A-CMX001J1-E

Sigma-II series servo drive cables

Description	Model
Servo drive connecting cable, 1 axis. (It is required 1 cable for each servo drive)	1 m R88A-CMUK001J3-E2

Computer software

Specifications	Model
Motion perfect software	MOTION TOOLS CD

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.