

Co-ordinating motion

CS1W-MCH

up to 30 axes over high-speed motion link



Advanced Industrial Automation

OMRON

With Omron's new CS1W-MCH motion control unit, today's manufacturers have the speed, accuracy and flexibility they need for their motion control systems. CS1W-MCH is a PLC-based advanced motion control unit that offers control of up to 30 axes. Its dedicated MechatroLink-II high-speed motion bus provides instant communications between the motion controller and the servo drives. And its powerful processor handles the multiple tasks and all of their parallel programs every system cycle.

Motion control over multi-axes link

The CS1W-MCH motion controller is the perfect solution for satisfying all your complex motion application requirements, including packaging, electronics, converting, food processing, textiles – in fact any multi-axes application is solved and integrated perfectly in a complete factory line.

Quick and easy programming and access to all information via PC.

MechatroLink-II cable

The perfect solution for:

- packaging
- electronics
- converting
- food processing
- textile

Features

- PLC-based motion controller
- Complete digital control of drives via MechatroLink-II
- Controls a total of 32 axes
- Simplified wiring saves cost and design time
- Real multi-tasking and parallel programming
- Simple to develop and modify using BASIC
- Access to the complete system from one point
- Linear and circular interpolation
- Electronic axes synchronisation
- Electronic CAM profiles
- One hardware registration per axis
- Dedicated inputs / outputs on the controller
- All features of the W-Series are available

MechatroLink-II high-speed motion link

This high-speed interface replaces the costly discrete wiring required with traditional systems. Just one MechatroLink-II cable eliminates the need for about 15 for each axis, which simplifies wiring, and reduces the cost and time needed for installation. It also means that maintenance and troubleshooting are minimised. With a frequency of 10 MHz, the MechatroLink-II link provides communication cycle times of 0.5 ms for 4 axes, to 4 ms for 30 axes, ensuring fast, precise motion control.

MechatroLink-II Communications cycle

Number of axes	communications cycle [ms]
1~4	0.5
5~9	1.0
10~21	2.0
22~30	4.0

Multi-tasking

With CS1W-MCH you can have up to eight different motion program tasks running simultaneously, and every program accepts up to eight parallel branches. All the branches in all tasks will be executed every system cycle.

Operates using BASIC language

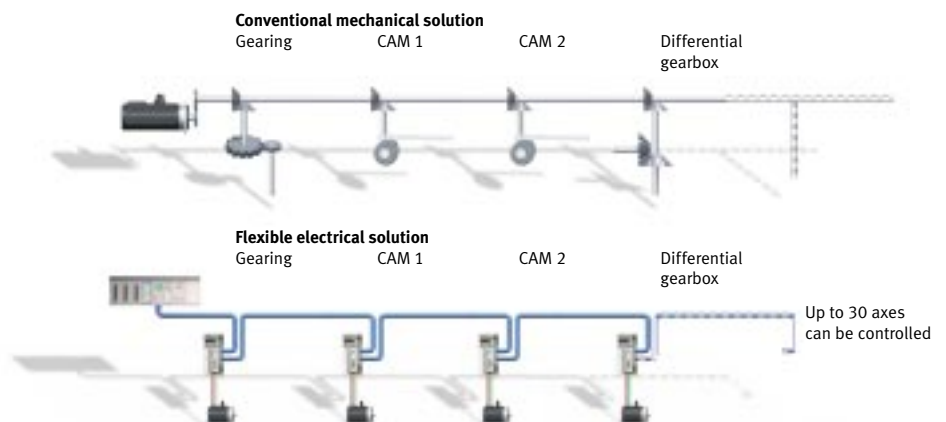
The motion program is written in a simple-to-use BASIC language, making the system easy to design, install and commission. The CS1W-MCH can be used in applications involving cam curve creation, gearing and synchronising axes.

Easy information management system

Using Omron's MCH-Tool you can create programs, read and write system parameters and servo parameters, positional data and cam data, and download or upload these to the CS1W-MCH unit, seamlessly. You can also access the entire system from one point - all you need is a laptop and Omron's software package to program the system!

Enhancing Omron's W-series

The CS1W-MCH fits perfectly into the Omron's renowned W-series servo driver, bringing enhanced functionality to this servo driver.



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