

## MicroSmart

*The Next Generation of PLC*

UL Listed  
File No. E211795



CE Certified

**Key features of the MicroSmart series include:**

- 10, 16, or 24 I/O All-in-one type CPU modules with Sink/Source DC input and Relay Output
- 20 I/O Slim type CPU modules with Sink/Source DC input and Transistor Sink or Source Output
- 20 I/O Slim type CPU modules with Sink/Source DC input and Relay Output with high-speed Transistor Sink or Source Output
- 40 I/O Slim type CPU modules with Sink/Source DC input and Transistor Sink or Source Output
- DC Input, Relay Output, Transistor Output, Combination I/O and Analog I/O expansion modules available
- 24 I/O All-in-one CPU expandable to 88 I/O points; 20 I/O slim types expandable up to 148 or 244 I/O; 40 I/O slim type expandable up to 264 I/O points
- Standard RS232 port, optional plug-in RS485/RS232 port
- Optional memory cartridge or real-time clock and calendar cartridge
- Data link to other MicroSmart modules, PLCs, PCs or HG series operator interfaces
- Approved for Class 1-Div. 2 hazardous locations (UL1604)
- Compact size
- Now available with AC input expansion module

**Pulse Output/Trapezoidal Control**

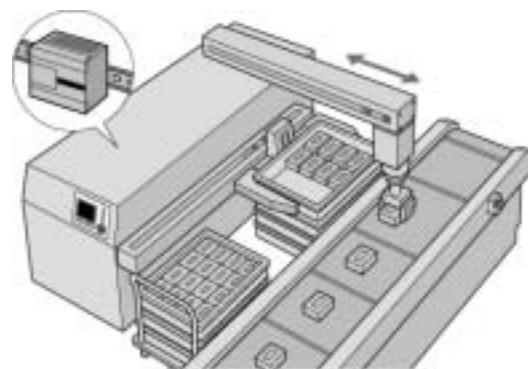
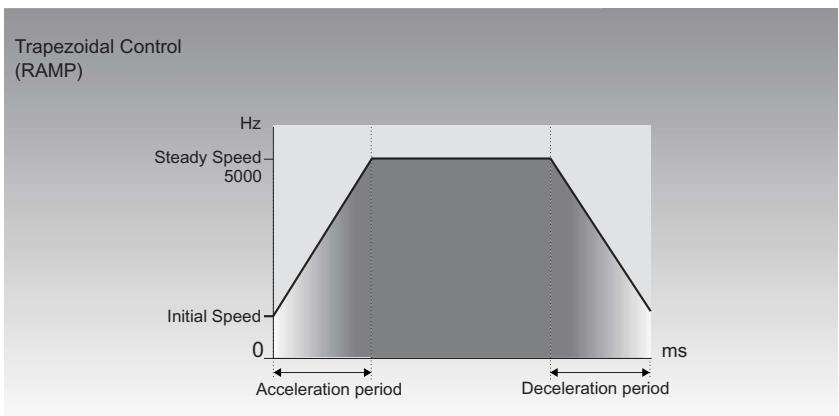
Independent dual-axis control is available with two pulse outputs. Locational values can be easily defined for precise positional (trapezoidal) control.

- Pulse output instruction
- PWM instruction  
(Pulse Width Modulation control)

**Pulse Output Function Specifications**

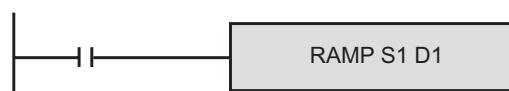
Number of output points	2
Maximum output frequency	20 kHz

\*Only one point of trapezoidal control is available.



Setting the desired values enables you to precisely manage the trapezoidal control

Operation mode (S1)	1
Steady pulse frequency (S1 + 1)	50
Initial pulse frequency (S1 + 2)	10
Frequency change rate (S1 + 3)	2
Present value (S1 + 6, 7)	10,000

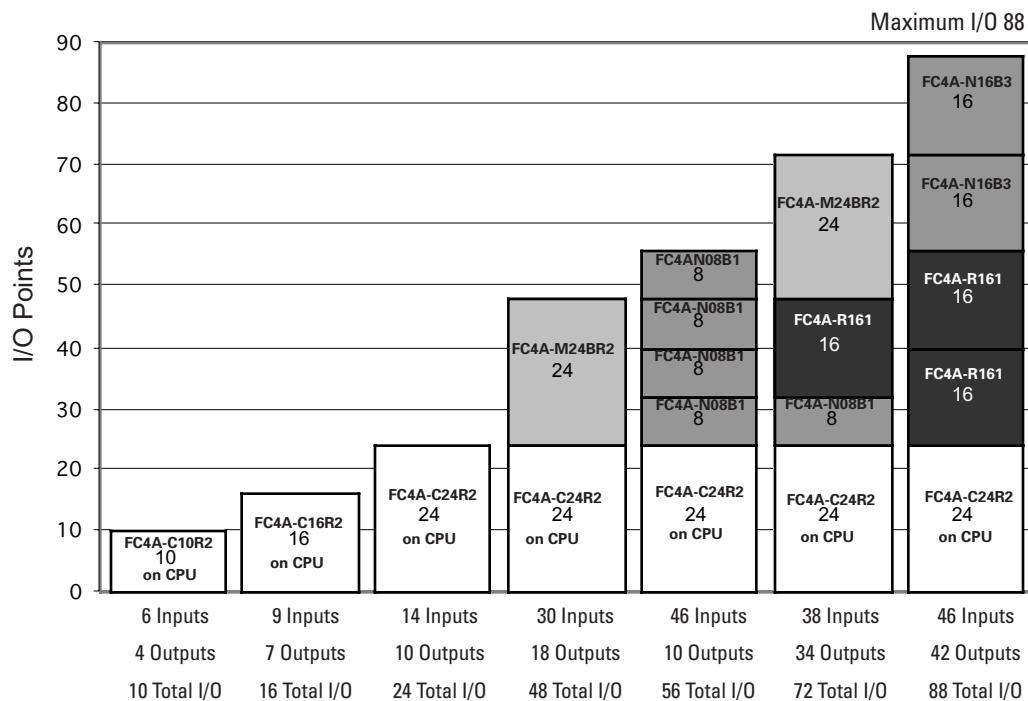


## CPU and Module Combination Examples

## All-In-One Type

- Attach Maximum 4 Expansion Modules
- Maximum I/O 88 points
- Only FC4A-C24R2/C24R2C CPU Module is expandable

 The maximum number of relay outputs that can be turned on simultaneously is 33 points including relay outputs on the CPU module.



## Slim Type

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Programmable Logic Controllers

- Attach Maximum 7 Expansion Modules
- Maximum I/O
  - 148 points (D20K3, D20S3)
  - 244 points (D20RK1, D20RS1)
  - 264 points (D40K3, D40S3)

 The maximum number of relay outputs that can be turned on simultaneously is 54 points including relay outputs on the CPU module.

