

## MC 202 Motion Coordinator

**The Trio MC202 is a small DIN rail mounted motion controller based on Trio's proven high performance 32 bit DSP technology.**

It has been designed to provide a compact, cost effective solution for OEM applications. The unit features two axes, the first of which can be configured in software for either servo (with encoder feedback) or stepper control. The second axis may be either a reference encoder or a stepper axis.

The MC202 is programmed using Trio BASIC which features true pre-emptive multi-tasking of up to 3 simultaneous processes. Parts of a complex application can therefore be developed, tested and run independently, although the tasks can share data and motion control hardware.

Each axis may run moves using linear or circular interpolation, electronic cams and gearboxes. Support is provided for continuously rotating machinery and two of the inputs may be configured for accurate hardware registration.

The MC202 has 4 24v inputs and 4 bi-directional input/output channels built-in. These may be used for system interaction or may be defined to be used by the controller for high speed registration, end of travel limits, datuming and feedhold functions if required.

The MC202 can have up to 256 external Input/Output channels and up to 32 analog input channels, connected using DIN rail mounted I/O modules, via the on board CAN channel of the MC202.

The MC202 has an RS-232 port as standard. In addition a further serial channel is available at TTL levels.



External adapters are available to allow this serial port to be linked to a full-duplex RS-485 channel or a Trio membrane keypad on a fibre-optic link.

- ▲ **Compact 94w x 56d x 105h**
- ▲ **Easy DIN rail mounting**
- ▲ **Multi-Tasking BASIC Programming**
- ▲ **MotionPerfect Application Development Software**
- ▲ **CAN Networking**
- ▲ **Status LEDs**

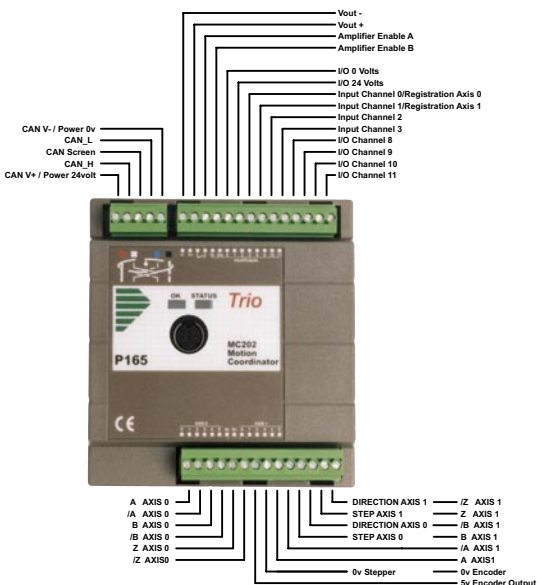


**Motion Coordinator**

**Summary Of Features**

Size (mm)	94w x 56d x 105h.
Weight	200g.
Operating Temp.	0 - 45 degrees C.
Communication Ports	1 RS232 channel: 9600 baud. + 1 TTL serial channel 9600 or 38400 baud. 1 CAN channel built on to motherboard.
Control Inputs	Forward Limit, Reverse Limit, Datum Input, Feedhold Input.
Programming	Multi-tasking TrioBASIC system, maximum 3 tasks.
Position Resolution	32 bit position count.
Interpolation modes	Linear 1-3 axes (including one 'virtual axis') Circular, helical, CAM profiles, speed control, electronic gearboxes.
Speed Resolution	32 bit.
Servo Cycle	1ms.
Memory	128 Kbytes flash user program memory.
Power Input	150mA at 24 V d.c. (+/-10%).
Amplifier Enable Output	N/O relay contact rated 24Vdc @ 0.5A.
+/-10volt DAC Output	12 bit resolution, single channel on axis 0.
Encoder Inputs	2 axes, Differential 5v inputs, 6MHz maximum edge rate * (MC202 can generate 150mA at 5v for encoder power supplies).
Stepper Outputs	2 axes, 500KHz maximum step rate *
Digital Input/Outputs	4 Input + 4 bi-directional Input/Output Channels, 2 Inputs may be used for high speed registration.

*\* Each axis can use either encoder input or stepper output.*



**MC202 Accessories**

- P350 RS232 Serial Cable
- P435 Serial to Fibre Optic Adapter
- P348 Serial to RS485 Adapter
- P315 CAN 16-I/O
- P325 CAN 8 Analog Inputs

**Flexible Motion Control**

- Interpolation up to 24 axes
- Circular Interpolation
- Helical Interpolation
- Cam Profiles
- Software Gearboxes
- Linked Movement
- Axis Superimposition
- Imaginary Axes
- Hardware Registration

*Any Axis can run any move type*

**Axis Configuration**

The MC202 is supplied in a single configuration (Trio product code P165). The programmer can use Axis 0 of the controller as either a servo axis with +/-10volt output and encoder feedback, or as a stepper control axis using step and direction outputs.

Axis 1 of the controller can be used either as an encoder input axis for synchronisation functions, or as a stepper control axis using step and direction signals.

A third axis, Axis 2, is provided in software only, for the generation of complex motion profiles using "virtual" axis summing.

**EMC Compliant**



- BS EN50082-2 (1995) : Industrial Noise immunity
- BS EN55022 (1995) Class A: Industrial Noise emissions

**Ordering Information**

Product code: P165

**Distributed By:**

