

MC216

The *Motion Coordinator* MC216 is based on Trio's high performance 32 bit DSP technology and provides up to 16 axes of servo or stepper control. The unit's flexibility is achieved using 4 axis slots in the MC216 module and up to three Axis Expander modules. The slots may be fitted with any combination of the 10 available "daughter boards". The flexibility of this system allows the MC216 to be configured for a broad range of machinery requirements. Each axis may run moves using linear, circular or helical interpolation, electronic cams and gearboxes. Support is provided for continuously rotating machinery and the daughter boards feature accurate hardware registration.

The MC216 features Trio BASIC with pre-emptive multi-tasking of up to 18 BASIC programs. This allows machine programs to be separated into functional blocks which may be programmed independently and run concurrently using local and shared variables. The controller works with "Motion Perfect" Trio's Windows based application development program. This provides a wide range of tools, such as a 4 channel software oscilloscope, to provide programmers with a graphical window into their machine's operation. I/O

expansion is provided via a built-in CAN interface. Further CAN networks for controlling suitable servo amplifiers are supported via a CAN daughter board.

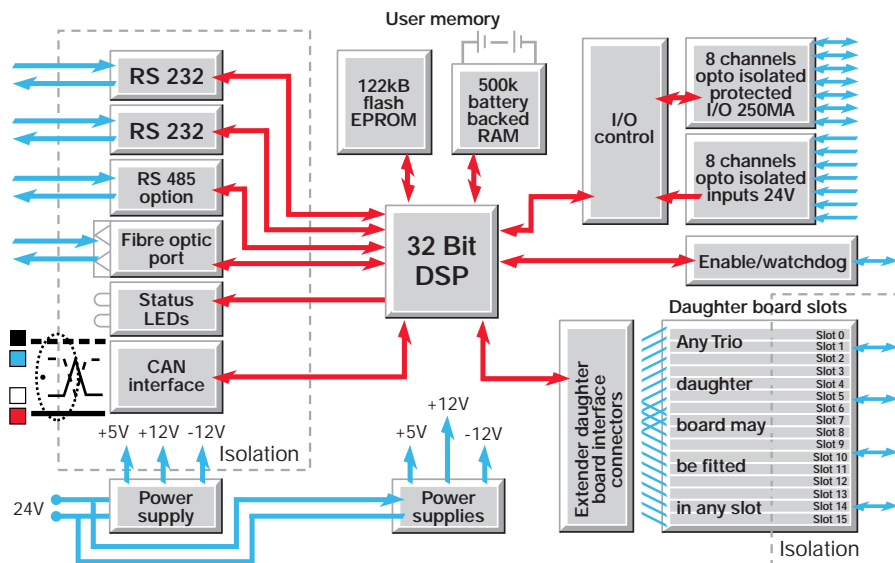


- Up to 16 Axis Control
- Multi-Tasking BASIC programming
- Electronic Clutches, Cams & gears
- CAN Networking
- Linear, circular and helical interpolation
- Flexible configuration "daughter board" concept
- Motion Perfect application development program



▶ *Trio Motion Technology* ◀










B R E A T H I N G L I F E I N T O M A C H I N E S



Communications

- Two RS232 ports
- RS485 serial port
- Fibre Optic port connects to other **Motion Coordinators** and Operator Interfaces.
- Built-in CAN Interface for I/O expansion.
- Additional Communication Daughter Boards may be added. CAN boards are available now. SERCOS and Profibus boards are under development.

Flexible Motion Control

-  Linear Interpolation up to 4 axes
-  Circular Interpolation
-  Helical Interpolation
-  Cam Profiles
-  Software Gearboxes
-  Linked Movement
-  Axis Superimposition
-  Imaginary Axes
-  Hardware Registration

Any Axis can run any move type

Multi-tasking Trio BASIC

Flexible, easy to use programming language. Runs up to 18 application programs concurrently using pre-emptive multi-tasking.

Command Interface also runs concurrently allowing read back of variables and parameters from the **Motion Coordinator** while programs are running.

User program and System software stored in Flash EPROM.

Input Output Channels:

- MC216 has eight 24 volt Opto-isolated Inputs and eight 24 volt Opto-isolated Bi-directional I/O channels built-in.
- Output Channels have 250mA capability and feature independent over current protection.
- Up to 256 Bi-directional I/O via CAN expansion bus.

Motion Perfect Application Software

- Application development tool for "Windows".
- Project manager loads/saves programs.
- Multi-Program screen editor.
- Multiple terminal windows.
- 4 Channel Colour Software Oscilloscope.
- Program Debugger.
- Keypad Emulation.
- Input from DXF CAD files.

Control up to 16 axes

- Slot in Daughter Boards make it possible to control any combination of Servo, Stepper, Hydraulic, Pneumatic or Reference axes at the same time.
- Up to 16 Daughter Boards may be fitted in any combination from:
- P200 Servo Encoder
- P210 Servo Resolver
- P220 Reference Encoder
- P230 Stepper
- P240 Stepper Encoder
- P242 Hardware PSWITCH
- P260 Analogue Output
- P270 SSI Encoder
- P280 Differential Stepper
- P290 CAN (4 axis board)

MC216 Accessories

- P300 Axis Expander
- P315 CAN 16 I/O Module
- P330 Network Interface
- P350 RS232 Serial Cable
- P605 Motion Perfect disk
- P640 Hardcopy Manual
- P641 Manual on disk

EMC Compliant CE

- BS EN50082-2 (1995) Industrial Noise immunity.
- BS EN55022 (1995) Industrial Noise emissions.