

Accessories:  
P317, P318, P319, P326, P327 CAN Modules

DIN-RAIL OR PANEL MOUNT

PRODUCT CODE:  
P823 (3 STEPPER)  
P824 (2 SERVO: 3 STEPPER)

## MC403

8 DIGITAL INPUTS  
INCLUDING  
6 X REGISTRATION INPUTS  
AND 4 BI-DIRECTIONAL I/O

2 ANALOGUE INPUTS AND  
2 VOLTAGE OUTPUT AND  
WDOG RELAY

CAN PORT FOR TRIO CAN  
I/O, DEVICENET SLAVE,  
CANOPEN OR USER  
PROGRAMMABLE

3 ENCODER CONNECTIONS  
(6MHZ) OR DRIVE AS  
STEPPER OUTPUTS (2MHZ)

PANEL MOUNT OR DIN RAIL  
MOUNT

STATUS LEDS

MICRO SD CARD

ETHERNET  
PROGRAMMING, MODBUS-  
TCP, ETHERNET IP

RS232 / RS 485  
MODBUS-RTU,  
HOSTLINK OR USER  
PROGRAMMABLE

The MC403 is a high specification *Motion Coordinator* using a high performance ARM11 processor and provides up to 2 axes of servo plus a master encoder axis or up to 3 axes of stepper control. All 3 encoder ports can be either incremental or one of three popular absolute encoder types; SSI, Tamagawa or Endat, additionally the 3rd axis can be used as a stepper, reference encoder input or a sync encoder output.

The MC403 features a total of 8 axes in software. Any axes not assigned to built-in hardware can be used as a virtual axis.

The built-in Ethernet port allows programming and connection of common HMI and PLC protocols directly to the MC403. User programs can be written in Trio's established multi-tasking TrioBASIC language using the powerful *Motion Perfect* application development software making complex motion easy. Every axis can be programmed to move using linear, circular or helical or

spherical interpolation, electronic cams, linked axes and gearboxes.

Also available as an option on the MC403, the industry standard IEC 61131-3 runtime is an easy to use fully functional PLC programming system.

Two LED's enable the controller status to be easily determined, whilst the single piece metal cast backplate provides an integrated earth chassis to improve noise rejection in the industrial environment.

# SPECIFICATION

## PERFORMANCE

- 533MHz ARM11 processor with Double Precision Floating Point
- Selectable servo update 125, 250, 500, 1000 or 2000 microseconds
- Encoder input frequency 6MHz
- Stepper output frequency 2MHz
- User memory 8Mbyte
- Max data table size 64000
- Flash Data Memory stored to internal 32Mbyte chip or SD Card
- Position register precision 64bit
- Maths Double Precision Floating Point

## DRIVE INTERFACES

- Step & Direction
- Servo (+/-10V & Encoder)

## COMMUNICATION

- Ethernet (10/100) base-T
- Ethernet IP
- Modbus-TCP/IP
- Modbus-RTU
- TrioCAN or programmable
- DeviceNet Slave
- CANopen Master for inputs / outputs
- RS232 & RS485
- Hostlink or user programmable

## FEEDBACK

- 3 encoder inputs - selectable as incremental, SSI Abs, EnDat Abs or Tamagawa Abs

## I/O CAPABILITY

- 8 24V dc inputs built-in
- 4 24V bi-directional channels built-in
- 2 X 12 bit 0-10V analogue inputs
- 6 registration inputs - minimum delay 20 microseconds
- I/O expansion to 512 I/O channels, 32x12bit +/- 10V analogue inputs, 16x12bit +/- 10V analogue outputs using the P317, P318, P319, P326 and P327 modules
- CANopen I/O, or user programmable
- Hardware output position switching (PSWITCH)

## PROGRAMMING

- Multi-tasking TrioBASIC programmed using *Motion Perfect*
- 6 simultaneous TrioBASIC tasks
- IEC 61131-3 Runtime environment (option)
- TrioPC for ActiveX, Telnet
- G-code (coming soon)
- HPGL
- DXF Import

## FREE SUPPORT SOFTWARE

- *Motion Perfect*
- TrioPC ActiveX
- MC Loader ActiveX
- Software Oscilloscope
- Autoloader
- Project Encryptor
- Docmaker
- CAD2Motion

## POWER SUPPLY

- 24V dc - consumption 300mA + I/O supply

## MISCELLANEOUS

- Micro SD memory card slot
- 2 status LEDs
- DIN rail or Panel mount
- Weight 325g
- Length 135mm
- Height 122mm
- Depth 35mm



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