The PMC4 motion controller uses the most advanced technology in motion control and is intended for controlling machines of 1, 2, 3 or 4 axis with stepper and/or servo control. The onboard HMI, digital I/O (inputs/outputs), USB, ADC and serial ports, supported by ready to use software with advanced motion control makes this controller, an ideal and cost effective solution for machine manufacturers and system integrators.

**Overview**

Flexible IO with expansion facilities
Powerful, reliable and cost effective controller optimised for industrial use
PLC, HMI and motion controller included
Less wiring saving manufacturing costs
Smooth, fast and accurate positioning
All in one machine controller increases reliability and simplifies wiring
Fast set-up time
Simple to use graphic interface
Custom options for OEM’s

**Advantages**
- Absolute and Relative Positioning
- Point-to-Point Moves
- Position Tracking
- Manual Setup with Jog Options
- Origins and Offsets Programmable
- Tool Size Tables
- Over xx Commands to Customise Setup and Production

**Motion Control Functions**
**Processing Power**
- Freescale Version 2 Coldfire Microprocessor for Embedded Designs
- High Processing Speed of 160 million instructions per second
- 16 Mb Flash Memory
- 2 Mb of Battery Backed 16 bit SRAM
- 64 Mb of Double Data Rate High Speed RAM
- FPGA design for high speed processing of IO, Encoders, Registration Inputs etc.
- Low power consumption for battery run applications

**Communications**
- USB 2 Host
- USB On-The-Go (optional)
- Controller Area Network (CAN)Port
- RS232 Serial
- RS485 Multidrop Serial

**Operating System**
- Blackthorn OS for speed and stability developed by TRM
- Design ensures minimal code size
- Updates available via Pen Drive
- Used throughout our range of controls
- Interrupt driven architecture for stability
- Designed for the embedded environment

**PLC Support Services**
- **Alarms and events:** The system supports up to eight ‘events’, events are interrupts generated from change of input, timeout, position capture/match or keystroke. Events can be used as an alarm, emergency stop function, motion control manager, timer function etc.
- **Timer:** Eight precision timers are supported
- **Maths and calculations:** Comprehensive mathematics used throughout. From basic addition and subtraction to sine and cosine plus many more.

**System Memory**
- 64Mb DDR
- 2Mb SRAM
- 16Mb FLASH
- USB upto 8Gb
- SD Card option

**I/O Services**
- **Inputs:** 16 Opto Isolated (PNP or NPN)
- **Outputs:** 12 1A current limited sourcing outputs. Suitable for relay and contactor control etc.
- **Control Outputs:** 4 Motion control outputs +/- 10VDC.
- **Stepper Motor:** 4 Channels of Step & Direction
- **Analogue Inputs:** 4 High Speed at 0 -10V
- **High Speed Digital Inputs:** 2 for fast registration capture
- **Encoder Inputs:** 4 channels per Axis plus upto 3 internal Jog/Velocit