The MC4N-ECAT is a high performance Motion Coordinator that is dedicated to running remote servo and stepper drives via the EtherCAT real time automation bus. It is based on an up-rated version of the 532MHz ARM 11 processor which makes it ideal for high axis count machines or robotic applications.

The MC4N-ECAT supports up to 32 axes of motion with 64 bit integer position registers for ultra precise axis resolution. EtherCAT slave drives and I/O can be connected and run in cyclic synchronous position, speed or torque modes provided these are supported by the drive. Programming the MC4N is identical to using traditional analogue axes with the addition of being able to set up drives and process alarms over the EtherCAT bus. With everything programmed from one place, machine control has never been so simple.
The built-in Ethernet port allows programming and connection of common PLC and HMI protocols, including the Trio Uniplay range of HMIs, directly to the MC4N. User programs can be written in Trio’s established multi-tasking TrioBASIC language using the powerful Motion Perfect v3 application development software making complex motion easy. The industry standard IEC 61131-3 languages are available as an option, allowing a fully functional PLC programming system.

Versions of the MC4N are available for 2, 4, 8, 16 and 32 motor axes. All versions feature 32 software axes any of which may be used as virtual axes if not assigned to EtherCAT hardware. Every axis can be programmed to move using linear, circular or helical or spherical interpolation, electronic cams, linked axes and gearboxes. The power of the controller allows for multiple robotic transformations to run simultaneously.

A bright easy to read backlit display enables 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.