Multi-Axis Motion Controllers

Often precision motion systems have specific requirements which are not satisfied by standard off the shelf controllers. ABTech, Inc builds motion controllers one at a time, developing system specifications using application requirements and customer preferences. These multi-axis controllers are developed to work with ABTech's Ultra-precision air bearing rotary and linear stages to provide our customers with the ultimate in precision motion options from complex single axis moves with demanding motion profiles to multi-axis turn-key machine systems. Available with up to 8 axis of motion, 19" rack mount, stand alone enclosures and open frame for assembly into O.E.M. control cabinets. The controllers can be provided with pre-programmed event driven/button activated motion with or with out a touch screen monitor, or the system can be controlled from a host computer (Drivers available for DOS, QNX, Windows and Linux). More than 64 digital I/O points and 8 analog inputs are available for process control. Built in solenoids, indicator lights, relay and solid-state outputs are all available for added control.

Features:

- Customized displays

- 1 - Through 8 - axis configurations

- Modes of motion include jogging, point-to-point positioning, contouring, linear & circular interpolation, electronic gearing and ECAM

- Servo loop update rates as low as 62.5microseconds/axis - faster rates available as an option

- Linear and circular interpolation includes ellipse scaling, slow-down around corners, infinite segment feed, & feed rate override

- High-speed position capture and position compare for each axis

- On-board, non-volatile memory for storing application programs, variables & arrays

- Intuitive, English-like command language with over 200 commands directly executable by controller

- Multitasking for simultaneous execution of up to eight application programs

- ISA, PC104, PCI, Compact PCI, VME formats or stand-alone with USB or Ethernet and RS232/RS422/RS485, ModBus protocol over TCP/IP

- 64 configurable I/O

- 8 uncommitted analog inputs with 12-bit ADC standard; upgrade for 16-bit

- Controls step motors & servo motors on any combination of axes

- On-board sinusoidal commutation for brushless motors