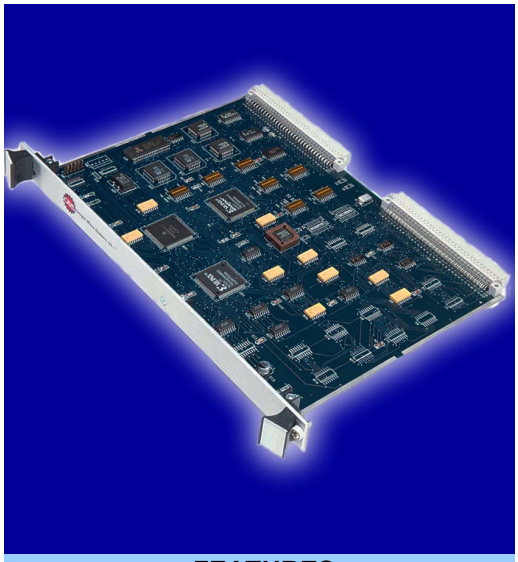
Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it

VS4 Family



FEATURES

- Output is step & direction
- Independent and coordinated motion of all axes
- Each axis has a pair of limit inputs plus a home input as well as an auxiliary output for drive or amplifier current control.
- Up to 8 "user definable" TTL I/O lines
- All control signals are on the P2 connector
- Independent and coordinated motion of all axes
- Circular interpolation
- Electronic gearing
- Circular interpolation
- Constant velocity linear interpolation (all axes)

DESCRIPTION

The VS4 intelligent motion control allows control of up to 4 axes of motion control in one slot of a VME bus computer. From the factory, all axes are controlled through 5 VME short address ports for control, status feedback, data, commands and the VME bus interrupt vector. Each axis has a separate command queue allowing the host computer to transfer a command string then proceed with other tasks, while the VS4 manages the motion process. The computer can be interrupted at any point in the command stream to coordinate the motion process with other activities. Each axis can perform individual unrelated moves or they can be coordinated as required by the application.

The VS4 generates step and direction pulses for control of the most popular step motor drivers. It also supports servo or linear motor controllers which accept step and direction inputs. The VS4 supports high resolution micro stepping of 50,000 steps per revolution with a standard 200 step per revolution (1.8 degree per step) stepping motor by developing the high pulse rates required for these applications. This high resolution allows the stepping motor to run smoothly at all speeds and minimizes low speed torque loss due to mechanical resonance effects. The velocity streaming mode allows an arbitrary move contour under control of the VME bus computer. Constant velocity contouring, with linear interpolation on up to six axes and circular interpolation on any two axes, provides constant tool velocity for machining applications.

Simple ASCII commands can be easily sent to the board from any high level language, which allows input and output to an I/O device, for example Visual Basic or C. I/O lines are available to synchronize moves to external events and an auxiliary line is associated with each axis, which allows the user to control external events. Complex move sequences, time delays, status checks and control of other external events can be programmed through the VME bus interface.

Incremental encoder feedback is available on up to four axes models for those applications requiring precise position feedback and/or correction. The encoder feedback can correct for position errors, monitor for slip or stall or allow tracking of one motor with another.

PROGRAMMING

The OMS motion controls are easily programmed with double character ASCII commands through an extensive command structure. These commands are combined into character strings to create sophisticated motion profiles. It includes an 800 command and parameter buffer for each axis and a command loop counter which allows multiple executions of most command strings.

Rometec srl - www.rometec.it - Rometec srl - www.rometec.it - Rometec srl - www.rometec.it