

SMD210 Stepper Motor Drive

Dual sequential stepper motor controller

The SMD210 Vacuum-Compatible Stepper Motor Drive is designed to match AML UHV motors. Two motors may be driven sequentially under host computer control or by an internally stored program. Manual operation is also available from the front panel switches or a hand-held joystick.



FEATURES

- Drives 2 UHV stepper motors sequentially.
- Advanced low-power drive techniques for minimum motor temperature rise and outgassing and maximum operating time.
- Phase currents can be set from 0.1 to 1A in increments of 0.1A.
- Holding torque can be controlled independently of dynamic torque under program control, to reduce power.
- Full, half, $\div 4$, $\div 8$ step drive modes with automatic transition at user selectable speeds. (Stops on full step positions only. Micro-stepping used for control of resonance and smoother step transition.)
- Thermocouple amplifiers (type K) for motor temperature indication, protection and control of motor bakeout.
- RS232C interface for host computer control. Drive programs can be developed and run from the computer console (Remote Program Control) or downloaded for stand-alone operation (Internal Program Control).
- Motors may be operated manually with the front panel 'STEP' switches or with a joystick. Single-step or multiple-step operation with smooth acceleration to the selected speed.
- 3 user inputs for interaction with program execution, in addition to two "End of travel" inputs for each motor.
- 3 user outputs for switching under program control.
- Simple control language has many powerful commands which allow control of all aspects of motion or position. Conditional operation, loops and jumps are possible.
- 1U high full-width, steel-cased instrument for easy rack-mounting.
- Operates from 100 to 240V, 50/60 Hz supply.

SPECIFICATIONS

Features	
Stepper motors	Suitable for the control of 2 phase bipolar stepper motors with four lead wires
Phase current	Up to 1Amp. User selectable in 100mA steps
Source voltage	67 V
Step frequency	10-6000 steps/sec
Operating modes	Remote - via RS232 Internal - stand alone mode from stored sequential program Front Panel - Manual operation
Interfaces	
Motors	2 x motor connectors
Thermocouple	2 x type 'K'
Inputs	3 user inputs 2 limit switch inputs 1 joystick input
Outputs	3 user outputs
Communication	
Interface	RS232C
Programming	AML communication software running under Windows (included)
General Specifications	
Dimensions	1U high, full width x 270mm Deep
Weight	3.6kg
Protection class	IP 20
Temperatures	Operation 5° to 40° C. Storage & transport -10°C to +60°C
Supply voltage	100 V to 240 V nominal at 50/60 Hz, without adjustment
Power consumption	<50 watts

ORDERING INFORMATION

Order Code	
SMD210	Stepper motor drive
SMD210JOY	Joystick
MLF18NBL	Lead. SMD210 to MLF18F
MLF18L	Lead. SMD210 to MLF18F. Bakeable 250°C
MLF18F	Feedthrough. 18-way NW70CF



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