



# Multi-Axis Stepping Motor Driver/Controller

## Model: MCB-4B

The **MCB-4B Stepping Motor Intelligent Motion Driver/Controller** is an open frame 4- axis integrated stepping motor driver/controller that drives and controls any 2-phase stepping motor with phase currents from 0.25 to 3.0Amps/ phase, simultaneously. The **MCB-4B** performs indexing functions without the need of a host computer, or can operate under the control of a host. The **MCB-4B's** internal nonvolatile memory will store and execute a programmed instruction set, with four on-board toggle switches providing manual jog control. High efficiency , low noise motor drivers provide ideal programmable control for multi-axis positioners, beamline shutters and other laboratory control applications.



### MCB-4B Features

- Drives and Controls Up to 4 (Four) 2-Phase Stepping Motors with Stepping Rates to 50,000 Steps/Sec.
- Adjustable Motor Winding Current 0.250 - 3.00 Amps/Phase
- High Efficiency, Low Noise, Motor Driver Designed for Laboratory Applications
- Nonvolatile Memory For Control Variables & Comprehensive Motion Instruction Set
- Certified Scientific Software spec Driver Support
- 4 Toggle Switches for Manual Jog Control
- RS-232 and RS-485 Serial Communications up to 57.6k Baud
- Optional Single Board Enclosure with I/O Controller Board
- Optional 19" Rack Enclosure for 8 Boards or 32 Axis of Drive and Control



### MCB-4B Specifications

#### Electrical

- Drive Current - 0.250 - 3.00 Amps/Phase (based upon motor type)
- Logic Power Supply - 5VDC Input+/-5%@120mA Typical
- Motor Power Supply - 12 to 40VDC @ up to 4Amps
- Idle Current - 0 to 3.00Amps/phase - Adjustable

#### Motor Requirements

- 2-Phase Bi-Polar Stepping Motors, or
- 4-Phase Motors Connected as 2-Phase
- 4, 6 or 8 Leads
- 0.250 - 3.00Amp Winding Current

#### Motor Operating Mode

- Low Noise Bi-polar Chopper Drive
- Full Step
- Full/Half Step with Torque Compensation
- Quarter/Eighth Step with Torque Compensation

#### Environmental Requirements

- Operating Temperature 0C to 50C (32F to 140F)
- Storage Temperature -20C to 70C (-4F to 160F)
- Humidity <95% Non-Condensing

#### Dimensions

- 13.00L x 6.00W x 1.0"D (330 x 153 x 25.4mm)

#### Mass

- 28oz. (0.793kg)



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