

# Nstep

## Digital Controller Module

Supports two or four axes of open loop stepper

One clock output (up to 25 MHz) and direction output per axis

One non-isolated digital input/output per axis (5 VDC)

5-24 VDC opto-isolated CW/CCW/HOME inputs

Drive Enable outputs (5 VDC)

Fault input (5-24 VDC)

16 assignable (in groups of 8) digital I/O (5 VDC)

Supply voltage of 24-80 VDC

Screw terminal connectors for I/O

Encoder feedback for encoder verification

Easily connected to third-party power modules

CE approved, NRTL safety certification, EU 2015/863 RoHS 3 directive

NStep is a two- or four-axis stepper controller that interfaces with any standard stepper drive via clock and direction inputs. Motion can be coordinated with other axes, even non-stepper axes, to produce contoured motion.

Nstep is used with Aerotech's Automation 3200 motion, vision, PLC, robotics, and I/O platform. The Automation 3200 system is a software-based control architecture coupled to digital drives through a FireWire® network. As with any axis under A3200 control, Nstep receives commands via FireWire®, minimizing the wiring effort, and automatically reports all state, diagnostic, and I/O information back to the A3200.

Nstep can be used in multi-axis systems where a few ancillary axes require stepper motor controllers that are either sequenced or coordinated with the servo axes of the system. Nstep also can be used as the main controller for a



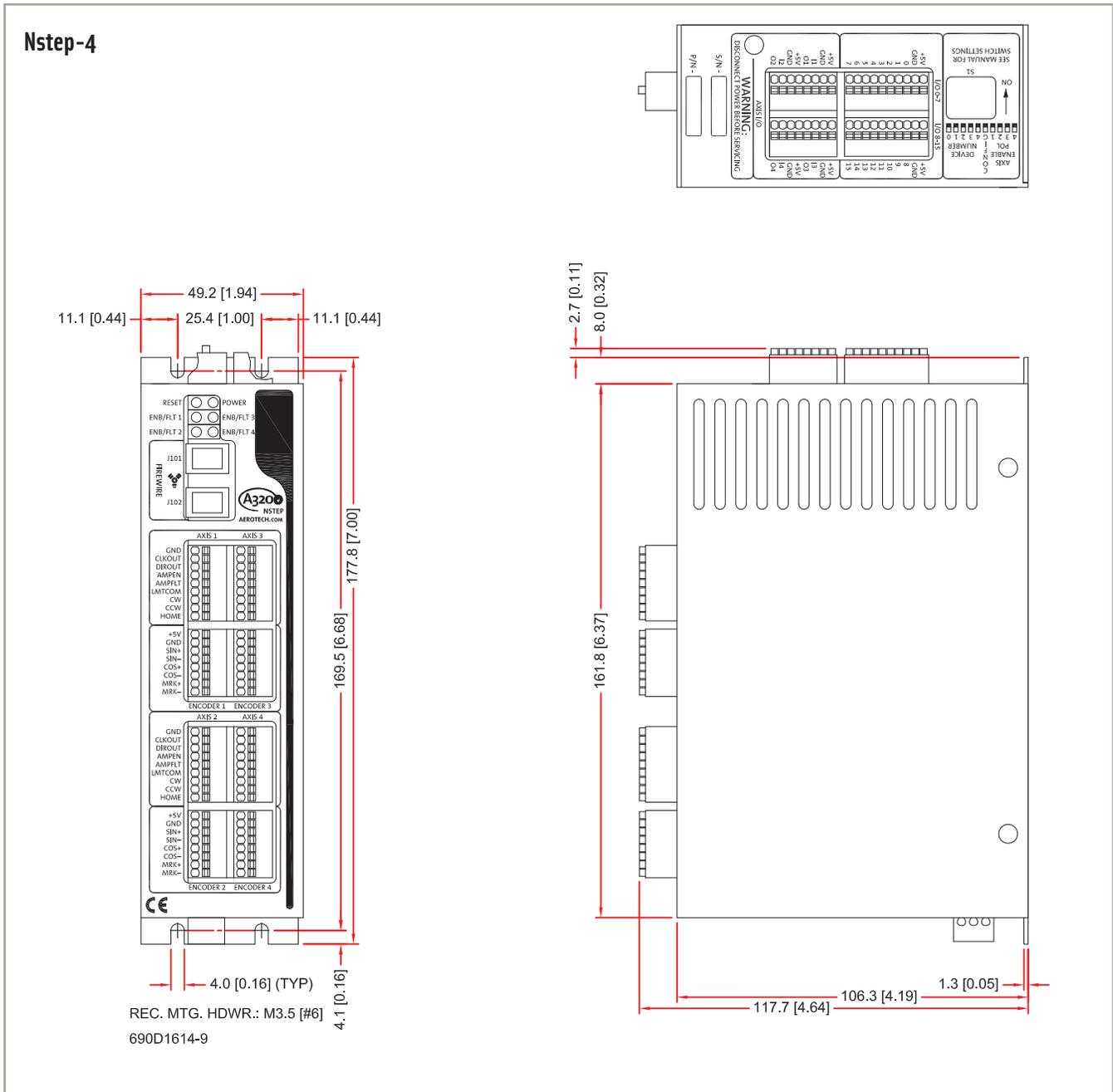
completely stepper-based system. This flexibility provides the user with the ability to control all axes on the system (servo or stepper motor) with one motion controller.

Additionally, tighter integration of all diverse axes results in less integration work, thereby shortening the development and deployment time. This tight integration enables seamless access within one interface to all axis information, including motion-state variables, fault information, and drive status information.

Programming can be done in the same environment using AeroBASIC™ or RS-274 (G and M code). Additionally, all I/O and parameters are centralized on the A3200 with other axes. All this reduces the complexity of integrating stepper axes into a larger system. Encoder feedback with verification, I/O inputs, and screw terminals for electrical connections are standard.



## Nstep DIMENSIONS and ORDERING INFORMATION



## Nstep Ordering Information

NSTEP-2	2-axis control board for standard stepper motor with clock and direction output to a standard step per drive; supply voltage is 24 to 80 VDC, up to 3 amps for internal logic; includes CW, CCW, Home, Enable, one non-isolated digital input and encoder feedback connected through a screw terminal connector
NSTEP-4	4-axis control board for standard stepper motor with clock and direction output to a standard stepper drive; supply voltage is 24 to 80 VDC, up to 3 amps for internal logic; includes CW, CCW, Home, Enable, one non-isolated digital input and encoder feedback connected through a screw terminal connector

## Options

NSTEP24-2	Power supply for Nstep 24 VDC @ 2A
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