

The DC2C is a compact step motor Controller/Driver with microstepping, programmable drive power, modular connecting, and supports step rates from 1/255-step to 36,000 steps per second. It can be controlled serially through a serial command-line interface from an external host (PC or PLC), but can also be programmed for fully autonomous operation using its internal program memory.

The DC2C form-factor allows dense chassis mounting, and optional conformal coating allows its use in challenging environments.

It features 2A per-phase current drive at up to 40VDC, for high speeds. Includes built-in overtemp, driver overcurrent, and fuse protection.

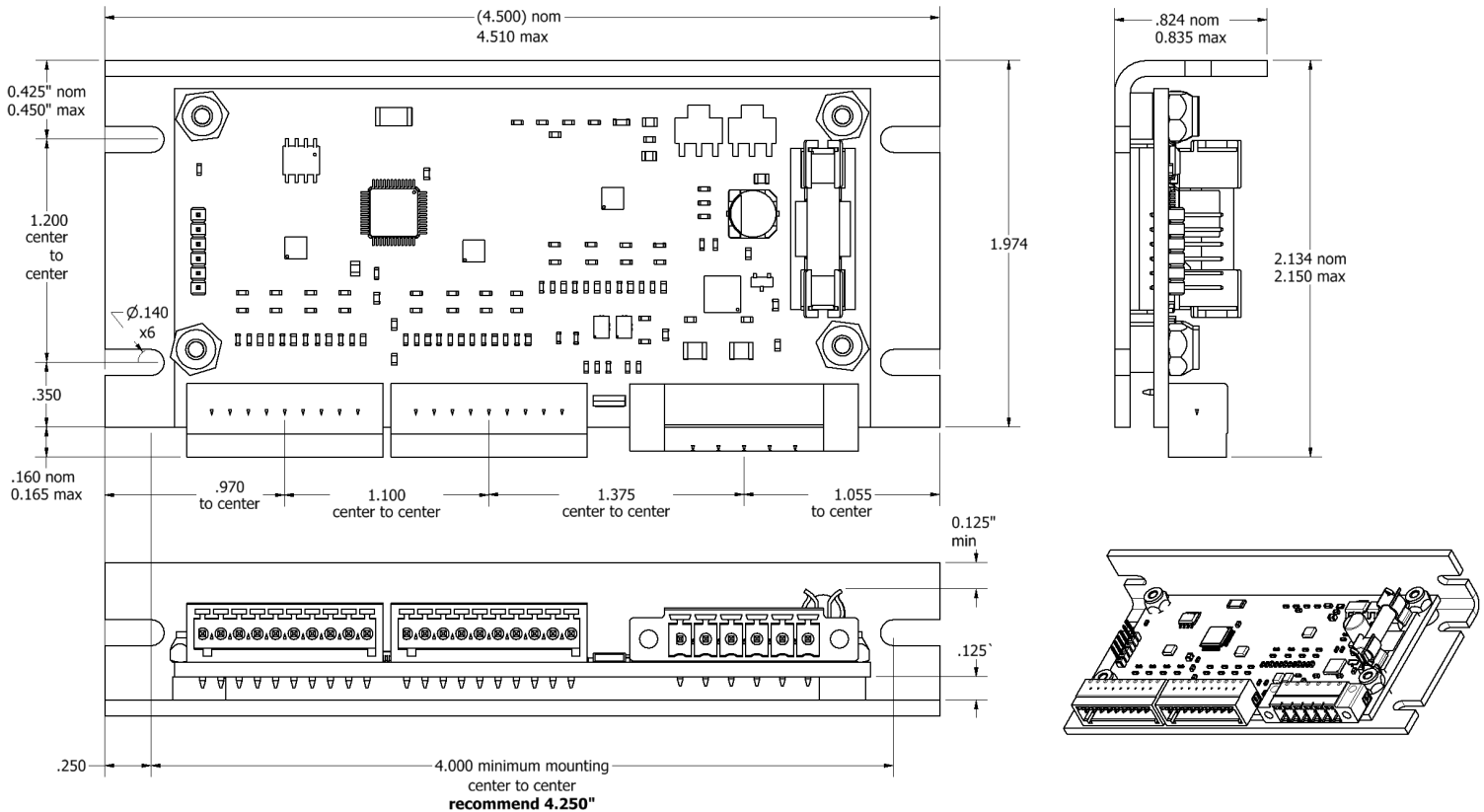
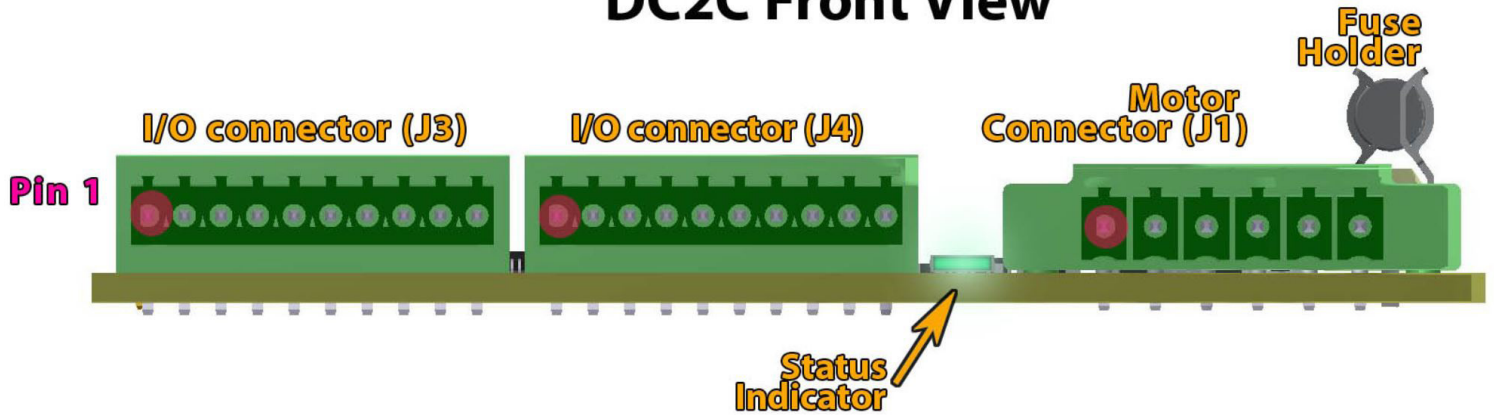
Twelve input ports support conditional programming, when connected to sensors or controls up to 30VDC; Four output ports can drive indicators, relays, motors or solenoids up to 36VDC (@ 1A each).

Up to 32 DC-series Controller/Driver Modules (such as the DC8C and DC2M17) can be easily controlled from a single host via the AM Comms Bus; a standard RS485 twisted-pair multi-drop bus. Wiring is easy and interface adapters are standard to the industry.

Features

- Programmable phase current (per phase), up to 2A @ 40V
 - Run and Hold Current settings, with programmable delay
 - Overcurrent detection and protection
- **Single input supply voltage** – from 10 to 40VDC
- Replaceable fuse protection, with built-in fuse fault monitoring
- **Microstep resolutions: Full, 1/2, 1/4, 1/8, 1/16, and 1/32 step**
- Easy serial Command Line Interface, with 41 CLI commands (AccelCom terminal software available on website)
- One host can control up to 32 DC-series controllers/axes (with Python, LabVIEW, etc.) in **Direct Mode**; or, run control programs from non-volatile internal memory in **Program Mode**
 - ⊗ Execute programs at power-on with **Automatic Program Mode**; no host required
- Drive step motor at up to **36,000** steps per second
- Drive speeds are divisible down to 1/255-th step per second
- Simple parameter setting and program creation process; easily transfer settings into non-volatile memory for permanence
 - Host can query system status: driver temperature, supply voltage, and I/O voltage; System Faults detected
 - Faults detected: max driver temp, max voltage and overcurrent
 - LED status indicator for power-good, fuse fault, overvoltage, overcurrent, overtemp, program-mode and step rate
- **Twelve configurable input ports** – 4 to 36VDC support
 - ⊗ Each port configurable to support fixed functions, including: Home, Go, Stop, Limits, and Jogs
 - ⊗ All ports available as inputs for conditional branching
- **Four general-purpose digital output ports** support output control of circuits from 5 to 36VDC, providing 1 Amp each
 - ⊗ Operate external relays, solenoids, annunciators, etc.
- Control via *AccelMotion Communications Bus*
 - ⊗ Physical: RS485 (RS422 compliant) at 115,200 baud
 - ⊗ Control up to 32 modules on a single interface
- Small size allows flexible chassis location and high density
- Removable industrial locking plug and header connectors for reliable yet removable / reconfigurable installations
- Optional conformal coating provides resistance to moisture and particulate matter for industrial environments

DC2C Front View



Available for OEM applications as PCB-only or attached to mounting plate/heatsink
 Contact AccelMotion for more information and latest pricing