

The **DC2M17** is an easy-to-use compact *motor-mounted* step motor Controller/Driver, with programmable drive power, modular connector, and high-speed operation. It supports a wide range of motor drive parameters and step rates from 1/255-step to 32,000 steps per second. Up to 52 DC-series Controller/Driver Modules can be controlled through a fast two-wire AM Communications Bus from an external host, or can be programmed for fully autonomous operation with no external host required.

The **DC2M17** form-factor allows easy mounting to a NEMA17 step motor, and optional DC2M17-CASE gives added heat dissipation and physical protection. A wiring harness with color-coded connections is also available.

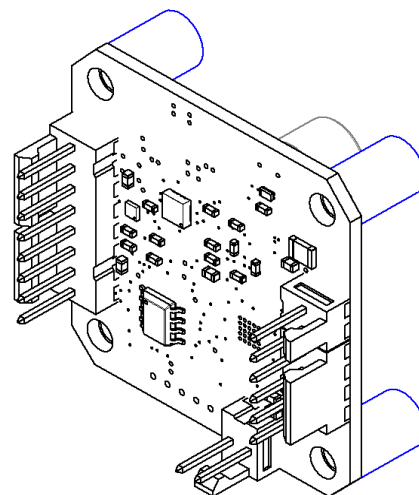
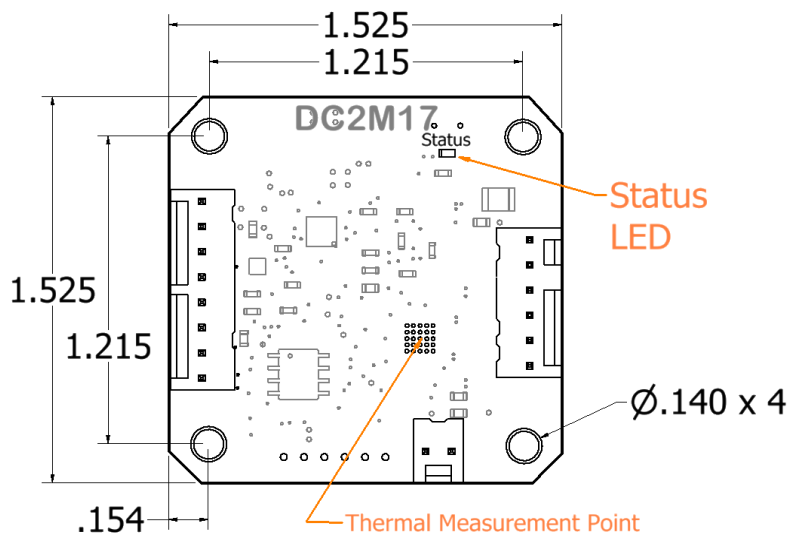
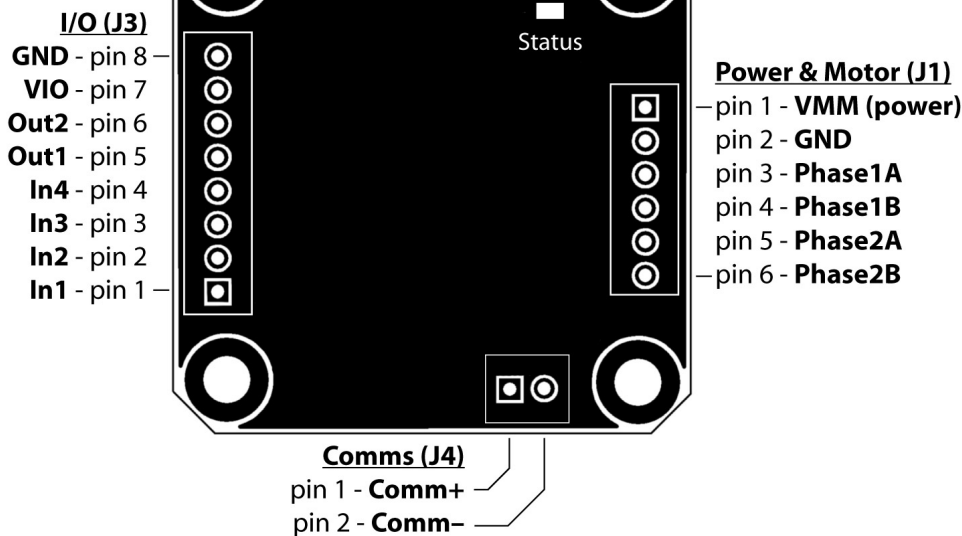
Four input ports support conditional programming, when connected to sensors or controls, or programmable functions such as HOME, GO, STOP, JOG, LIMITs, etc. Two output ports can drive indicators, relays, valves, small motors or solenoids at up to 30VDC (1A max each).

AccelMotion also provides AM Comms Bus Interfaces and AccelCom terminal software supporting the series.

### Features

- Programmable max phase current (per phase), up to 2A with optional heatsink/case (1.5A without case)
  - Run and Hold settings, w/programmable delay
- Single input supply voltage – from 8 to 35VDC
- Power input fuse protection for added safety
- Programmable step resolutions: Full, 1/2, 1/4, 1/8, 1/16 step
- Easy Command Line Interface, with over 41 motion commands and settings
- Can control with scripts (such as LabView or Python) in **Direct Control Mode**; or run internal programs from non-volatile memory, in **Program Mode**
  - Automatically run program at power-on with **Automatic Program Mode**; no host required
- Simple parameter setting and program creation; easily transferred into non-volatile memory for permanence
- Control and program all DC-series controller/drivers with AccelCom terminal software (provided)
- Heat-spreading technology supports high output phase currents (with & without optional case/heatsink)
- Drive step motor at up to 32,000 steps per second
- Drive speeds divisible down to 1/255-th step per second
- Four configurable input ports – 4 to 30V support
  - Each port can be configured with built-in functions, including: Home, Go, Stop, Limit(s), and Jog(s)
  - All ports available as general purpose inputs
- Two general-purpose digital output ports, each output supporting 5-30VDC at 1 Amp
  - Drive external relays, solenoids, displays, etc.
- Software-accessible driver temperature measurement
- Control via AccelMotion Communications Bus
  - Physical: RS485 (RS422 compliant)
  - Control up to 52 modules on a single interface
  - Fast commands and responses at 115,200 baud
- LED indicates power, step rate, and fuse fault
- Optionally mountable to NEMA17 step motor, for easy all-in-one control without a chassis
- Optional Case provides protection, and cooling to achieve max 2A drive current (DC2M17-CASE)
- Optional color-coded 30" cable harness provides easy wiring to power, comms, and I/O (DC2M17-CABLE)

## DC2M17 Top View



DC2M17

