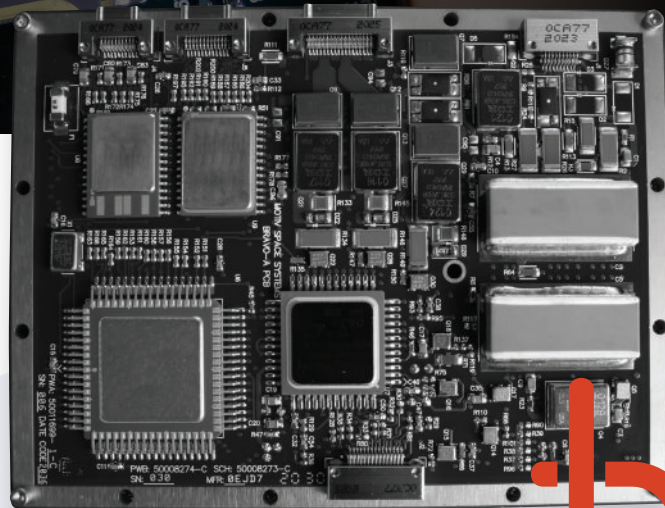
















Bravo Motor Controller

2 Channel Brushless/Stepper DC Controller

Motiv's Bravo motor controller is a flexible 2 channel controller capable of operating both Stepper and Brushless DC motors. The compact size and simplified power and commanding interfaces allows for unprecedented packaging and operational flexibility.



FEATURES

-  **Dual Axis Motor Controller Card**
-  **Supports 3-Phase BLDC or Stepper Motors**
-  **BLDC Control:**
Current, Velocity, & Position
-  **Stepper Modes:**
Full Step and Half Step
-  **Radiation Tolerance:**
Total Ionizing Dose 100kRad
-  **Commutation:**
Hall Sensor
-  **Communication:**
RS-485/422
-  **Resolver Commutation and Feedback (custom option)**
-  **Feedback: Quadrature Encoders**
-  **Voltage/Power Handling:**
up to 2A per axis
-  **Telemetry:**
Motor Current, Bus Voltage, Board Temperature, User Defined Telemetry (External): 8 analog channels
-  **Physical Dimension:**
89.4mm x 117.9mm
Compact Form Factor
-  **I/O port for configurable digital interfaces**
-  **Operational Temperature Range:** -55C to +125C

SAMPLE APPLICATIONS

- + **Gimbals**
- + **Positioners**
- + **Robotics**
- + **Focus Mechanisms**
- + **Filter Wheels**
- + **Cryo Coolers, etc**
- + **Instrument Mechanisms**

EXPORT RESTRICTIONS

Export of the Bravo Motor Controller is controlled under Export Control Classification Number (ECCN) 9A515.x and is available for sale in the countries listed in Group A:5.



About Motor Controllers

Motiv designs and delivers advanced motion control solutions for the extreme environments of space. From earth orbit, to deep space, to the cryogenic temperatures of the moon we have solutions to get you moving. Motiv's innovative motor controllers drive everything from robots to deployment mechanisms. In most cases the controllers can be tailored for your specific environment for radiation and parts pedigree to allow you to rapidly move from the lab to flight with the same architecture – saving you time and money.

PHYSICAL SPECIFICATIONS

Mass:

185g

Dimensions:

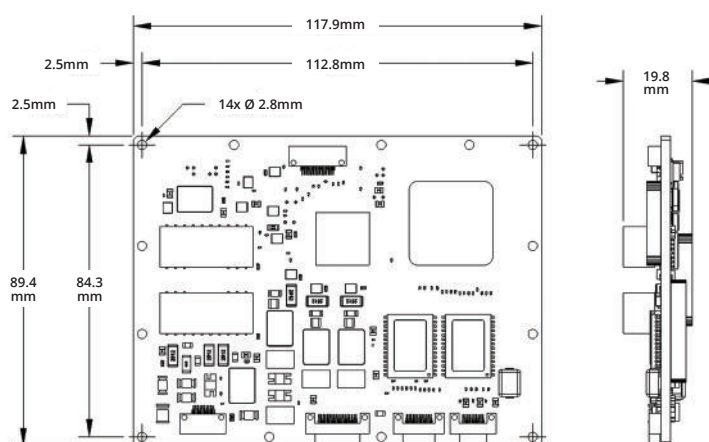
89.4mm x 117.9mm

Temperature:

-55°C to +125°C

System Interfaces:

- **Input Power**
- **RS-485/422 Communication**



ELECTRICAL SPECIFICATIONS

Input Voltage	22V-36V
Current Capability	1.3A per channel 2.6A max
Quiescent Power	~2W
Commutation Interface	Halls
Sensory Interfaces	Temperature Sensors, Potentiometers, Quadrature Encoders
Radiation Tolerance	100kRad

PERFORMANCE DATA

Primary Functions:

2-Axis Driver (Brushless or Stepper)

Brushless Motor Modes:

PID Velocity/Position Control, Open Loop PWM Drive, Custom Profiling, Brake Control

Stepper Motor Modes:

Drives 3-Phase Steppers, Profiled Moves

Primary Applications:

Instrument Controls, Filter Wheels, High Torque Latch Systems, Mechanism Controls, Planetary Manipulators