# DEEDS Motor Controller



## Distributed Extreme Environments Drive Systems

Motiv's DEEDS controller is an all-inclusive motion controller, that enables integrated capability for driving, controlling, and monitoring motion of a single degreeof-freedom. The controller's high current output enables a wide array of demanding use cases, leading to unprecedented application flexibility. The DEEDS controller also provides these capabilities through a wide range of extreme environments without the use of external heating sources, allowing for an easy-to-integrate platform.



### FEATURES

- Single Axis Motor Controller Card with Integrated Capability for Electromagnetic Brake Control
- Supports 1x 3-phase BLDC Motor and 2x Electromagnetic Brakes
- High Voltage Power Input:
  86V-158V, 15A continuous –
  20A peak
- Logic Power Input: 24V - 34V
- ((v)) **Communication:** 2x RS-422
- BLDC Control: Current, Velocity & Position
- ↔ Commutation: Hall Sensor or Field Director

- Brake Control: Supports one (Power On) Modulated Brake and one (Power Off) Modulated Brake.
- ((())) **Thermal Sensing:** 10x Integrated RTD Channels (4wire or 2-wire RTD interfaces)
- W Torque Sensing: Supports one full bridge torque sensor
- W Output Position Sensing: Dual Speed Resolver with 15 mRad resolution
- Operational Temperature Range: -180°C to + 80°C
- ★ Survival (Non-Op) Temperature Range: -190°C to +125°C
- Radiation Tolerance: 100Krad capable
- K→→ Physical Dimension: 215mm x 212mm

### SAMPLE APPLICATIONS

- + Wheel Drive Systems
- + Cargo Off-Load Systems
- Lifting & Hoisting
  Mechanisms
- + Positioning Systems
- + Robotics

#### **EXPORT RESTRICTIONS**

Export of the DEEDS 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.

