

High Country Tek, Inc. (HCT), is recognized as North America's foremost independent designer and producer of modular, extremely robust, highly reliable digital and analog electronic controller products for the fluid power industry.

Our signature method of total encapsulation using a flame resistant potting compound offers complete electrical integrity, making both our 'Specialty Range' and our fully programmable DVC™ series impervious to the typically harsh environments seen in the industry while providing full and uninterrupted operation.

HCT can provide authentic U.S. built products with application support locally or if required, at any location across the globe with our in-house customer support or through our distribution channels based around the world. We offer training on our products, application programming and usage while our flexible and innovative configuration allows us to offer extended services that include private labeling of any existing HCT product or full customer special product design with unique packaging if required.

Recognized as innovators and market leaders covering general Mobile, Industrial and Marine applications, we are also, globally acknowledged in the 'Hydraulic fan cooling' and 'Hydraulic generator controller' segments where significant fuel, emission and operational savings can be realized by using one of the company's controllers to optimize the applications operation.



### BUILT TO SURVIVE

## **Integrated Solutions**



**Qwik-Pick Solutions** 

- Combine HCT and Sun Hydraulics solutions for a complete industry first integrated package
- Controller, software, cables & literature
- Fully machined and assembled manifold
- Can be shipped within two weeks!
- Direct mount to manifold feature
- Contact us for details on new additions

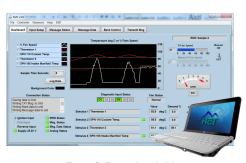
### **Configurable Controllers**



EVC
Configurable Electronic Valve Driver

- Work with ALL major OEM hydraulic valves
- Pre-tested, pre-loaded application
- PC configuration/setup program
- Industrial, Mobile, and Marine applications

### Free PC setup Programs



Free & Downloadable Graphical User Interface (GUI)

- PC based Graphical User Interface (GUI)
- No external programming time, costs or delays
- Diagnostic capabilities for controller & system
- Data logging to Excel file format
- Password protected configuration

**Mobile & Industrial** 

**Mining & Exploration** 

**Agriculture** 

**Cranes & Lifts** 

**Refuse & Recycling** 

Construction

**Off-Road Vehicles** 

Forestry, Wood & Pulp

**Reclamation & Salvage** 

Oil Field & Sands

**Demolition Equipment** 

**Cooling Solutions** 

**Military Apparatus** 

**Specialty Use** 

**Remote Control** 

**Power Generation** 

**Emission Controls** 

**Integrated Drivers** 

**Valve & Pump Controls** 

## **HCT Product Sales and Support**

For a full list of authorized distributors worldwide, please visit:

www.hctcontrols.com/distributors/index.htm



High Country Tek, Inc. 208 Gold Flat Court Nevada City, CA 95959 Tel: (1) 530 265 3236

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## **Analog Controllers**

### HAD & HAU - Single and Dual Analog Proportional Valve Controllers



Analog Series Product Page The HAD and HAU are precision open-loop proportional valve drivers tailored for use on low current EDC valves or up to 5 Amps and enables the user to add ramping and/or dither to minimize stiction and hysteresis of the valve. The HAD and HAU come standard with terminal strips or the optional WeatherPack connectors.

- Available configurations for low current valves up to 5 amps
- Solid potted for harsh environments
- WeatherPack connector options
- -5 to +5V, 0 to +5V, 0 to 10V or 4 to 20mA inputs
- Operating temperature -20 to +60 Deg. C ( -4 to 140 Deg. F)

## **Plug-Top Controllers**

## MVP Series - Digital DIN Plug Mount Proportional Valve Controllers



MVP Product Page Choose between open- or closed-loop control, soft shift, or power-saver digital plug top drivers. All controllers are CE certified and come with pre-wired cables in 10' and 30' lengths. Quickly configure maximum and minimum input and output limits, ramp rates, and dither frequency using a simple hand held interface (HHI) or free graphical user interface (GUI). Save and load configuration profiles for repeatability.

- Infrared communication interface
- Easy to set up and configure using the free SAM software
- LED indication of Status and Output current
- 600mA, 1.2A and 2.5A Max output current options
- Permanently sealed for harsh environments
- Operating temperature -40 to +85 Deg. C (-40 to 185 Deg. F)
- IP67 and CE certified

#### **PTD Series** - Analog DIN Plug Mount Proportional Valve Controllers



PTD Product Page

The analog Plug Top Drivers (PTD) are designed to control single valve coils, and come in 12 or 24V versions that can interface with 4-20mA or 0 to 10V command signals. Each controller comes pre-wired with 3m of 4 core color coded cable as well as a complete mounting kit allowing secure connection to any valve with a DIN 43650 interface.

- Single PWM output for any proportional valve or pump control
- Linear input to output curve to give best control resolution
- ALL settings by potentiometer under unit translucent lid
- Seperate ramp UP and DOWN adjustments for smooth control
- LED indication of Status and Output Current
- Available in 12 or 24V options
- Operating temperature -20 to +70 Deg. C (-4 to 158 Deg. F) /
- IP67 and CE Certified

## **Digital Single and Dual Valve Controllers**

### **EVC** - Multiple Function Single or Dual Coil Proportional Valve Controller



**EVC Product Page** 

The EVC is one of the most versatile and precise electronic valve controllers on the market today. Configured using an intelligent graphical user interface (GUI), the EVC can be used in simple proportional single- and dual-coil applications or in more complex closed-loop pressure/speed control solutions. The command signals can be either industry standard voltage (0 to +5V or 0 to +10V) or current (4-20mA) while the mobile industry can take advantage of the SAE J1939 compatibility for horsepower optimization or anti-stall applications.

- J1939 compatible
- Pulse feedback 3 to 30KHz
- SAE J1455 load dump
- NEMA 6P / IP67, 69K
- · Free software for easy setup and configuration
- Solid potted for harsh environments
- Operating temperature -40 to +85 Deg. C (-40 to 185 Deg. F)

### evc-2 - Two Dual Coil Proportional Valve Control



Pre-configured to quickly integrate and operate two separate dual coil valves for steering, moving, and loading applications. Easily configure a single controller with two dual position joysticks or a single four position joystick.

- 4x proportional outputs 0-3A Max (2x dual-coil)
- Analog input range 0 to +5V & 0 to 20mA
- Operating temperature -40 to +85 Deg. C ( -
- 40 to 185 Deg. F) NEMA 6P / IP67, 69K
- · CE certified and solid potted for harsh environments

evc-2 Product Page

## **Integrated Solutions**

## Integrated Solutions - Form/Fit/Function in less than 2 weeks!



Combine HCT's Qwick Pick Solution kits with Sun Hydraulics' QuickDesign for complete integrated solutions. Packaged with everything one needs to integrate, set up, and initially test or prototype.

- · Controller and fully assembled harness
- · Communication cable and software
- · Fully machined manifold assembled with Sun valves
- HCT and Sun sold seperately
- · Less than two week delivery

Integrated Solutions

#### **Industrial Controllers**

### **PV Series -** DIN-Rail Mount Proportional Valve Controllers



ProValve Series
Product Page

Select between open- or closed-loop position control versions. Preprogrammed with eight modes of operation utilizing single or dual coil configurations for typical industrial application requirements.

- Digital input range VDC and VAC
- Front panel indicators for Power, Output Current, and System Faults.
- Easily configure all inputs and outputs independently using free SAM software or our Hand Held Interface (HHI).
- 250mA output current up to 2.5A Max
- Efficient 15.6 kHz PWM operation
- Selectable dither frequency up to 244 Hz
- Operating temperature 0 to +70 Deg. C (32 to 158 Deg. F)

### **DR Series -** DIN-Rail Mount Proportional Valve Controller



DR Series Product Page Select between open- or closed-loop pressures control versions with 1, 2, or 4 proportional outputs. Pre-configured with 3 modes utilizing single or dual coil configurations for typical industrial application requirements.

- Multiple modes for single and dual coil applications.
- Front panel indicators for Power, Output Current, and System Faults.
- Easily configure all inputs and outputs independently using free SAM software or our Hand Held Interface (HHI).
- Selectable dither frequency up to 1,000 Hz
- Analog input range -10 to +10VDC & 0 to 20mA
- Operating temperature -20 to +70 Deg. C (-4 to 158 Deg. F)

## **Hydraulic Generator Controllers**

### **HGC-2** - Closed Loop Hydraulic Generator Controller



HGC-2 Product Page Widely used from wire line trucks to generator sets. Monitor and maintain a constant AC line frequency by varying the pump or motor speed using proportional valve control.

- Infrared communication and intuitive GUI for easy setup and configuration
- Control input 100 to 250 VAC (RMS) 50/60 Hz
- 600mA current output up to 2.5A Max.
- CE certified and solid potted for harsh environments
- Operating temperature -40 to +75 Deg. C (-40 to 167 Deg. F)

#### **Fan Controllers**

### **HFS-J** - Hydraulic Fan Controller



HFS-J Product Page Take advantage of the potential 15% fuel savings and increased horsepower by converting to variable speed hydraulic fan control.

- 0-3A Max proportional output (Hydraulic)
- J1939 communication with pre-configured CAN messages
- Reversing 'purge' or 'de-ice' capability
- Free software for easy setup and configuration
- Multiple thermistor inputs with optional fire switch
- Operating temperature -40 to +85 Deg. C (-40 to 185 Deg. F)

### EMC - NEW Single Bank Electric Fan Controller



EMC Product Page The EMC is a compact single e-fan bank controller designed to control multiple variable speed brushless fans. The controller provides low current varying PWM signal to the fans based upon the command inputs. Manage cooling needs like: Charge Air, EGR Cooler, Hydraulic Fluid, A/C Refrigeration, and Compartment Cooling. Utilize SPAL e-fans and control up to 20 e-fans per output.

- 1x 0-100% PWM output 500mA Max
- Receive and transmit standard or custom J1939 messages
- Reversing 'purge' or 'de-ice' capability
- 'On-demand' and 'Set-point' configurable
- · Free software for setup and configuration
- · 2x additional thermistor inputs
- Operating temperature -40 to +85 Deg. C ( -
- 40 to 185 Deg. F) NEMA 6P/IP67, 69K

#### **EMC-6** - Hydraulic & Electric Fan Hybrid Controller



EMC-6 Product Page Maximize engine efficiency and fuel savings by satisfying all cooling requirements with a single hybrid fan controller. Manage the major cooling needs with a single variable speed hydraulic fan and isolate direct cooling needs like Charge Air, EGR Cooler, Hydraulic Fluid, A/C Refrigeration, and Compartment Cooling with multiple E-Fan banks. Utilize SPAL E-Fans and control up to 20 E-Fans per output.

- CE and E-Mark certified for the On- & Off-Highway industries
- 1x 0-3A Max proportional output (Hydraulic)
- 5x 0-100% PWM output 500mA Max (E-Fan).
- J1939 communication with pre-configured CAN messages
- Reversing 'purge' or 'de-ice' capability for each output
- Free software for setup and configuration
- 6x additional thermistor inputs
- Operating temperature -40 to +85 Deg. C (-40 to 185 Deg. F)

## **Programmable Controllers and Displays**

### **DVC Series - Programmable Proportional Valve Controllers**



DVC Series Product
Page

The DVC family are user programmable control modules designed with a master module and multiple slave modules for increased I/O in order to support a wide range of hydraulic control applications. Used especially in the most demanding environments for continual and reliable operation.

- Endless Custom Solutions
- Rock Crushers
- Conveyor Systems
- Roller System Speed Control
- Batch Mixers
- Auger Controls
- Material Dispensing

Schedule DVC training with us today! Click Here for contact information.

## **Displays - DVC Compatible and Configurable Displays**



Display Product
Page

Choose from a wide range of rugged displays available in color or monochromatic options, touch screen and/or button capabilities and external or panel mount configurations. All displays are visible in daylight and programmable to provide immediate and critical information for the pilot or operator.

- Fully compatible with the DVC Series, EMC and EMC-6 controllers
- J1939 with 2x and 3x CAN Ports plus NMEA 2000 (GPS)
- SD storage and video feed options
- +/- 50G shock resistant
- Environmentally sealed and rated to NEMA 6P / IP67 Operating temperature -
- 40 to +85 Deg. C (-40 to 185 Deg. F)

#### **Custom Solutions**

### Custom Products - Develop the next industry differentiator



**Custom Products** 

HCT is capable of designing and manufacturing custom products for a wide range of market requirements. Combine our industry knowledge and experience with yours to develop the next industry differentiator.

- Custom PCB design and layout
- Custom I/O and communication (J1939/CANopen)
- Custom enclosures, connectors, and packaging
- Private labeling and branding options
- Pre-loaded application software
- · Custom display configurations

# **Embedded Controllers from Sun Hydraulics**

### **Embedded Series -** IR Embedded Amplifier



IR Embedded Amplifier
Product Page

The Embedded Electronics Amplifier is a compact, low profile coil/controller combination for use with proportional solenoid valves. The amplifier provides current to the coil in proportion to an input signal. There is no cover to remove or pots to set. Once configured, the settings are stored in permanent memory within the unit.

- 12 and 24V versions (1200mA and 600mA max output)
- Current and voltage command signal options
- · Open-loop, soft shift, and power saver modes
- Dither configurable from 80 to 300 Hz, 20 Hz increments
- Free software for easy setup and configuration
- Operating temperature -20 to +70 Deg. C ( -4 to 158 Deg. F)
- CE Certified

## Bluetooth Series - Bluetooth Embedded Amplifier



Embedded Bluetooth

Amplifier Product Page

Sun's new Bluetooth Embedded Amplifier is the fluid power industry's first commercially available Bluetooth-configurable product, providing a compact, factory-integrated coil and connector combination for use with Sun's proportional solenoid valves.

- Easily configured using Sun's downloadable app
- All input and output limits are independently adjustable
- Standard DIN 43650-Form A connector
- Selectable dither frequency up to 500 Hz
- Adjustable current limit ouptut with short circuit protection
- 12 and 24V versions (1200mA and 625mA max output)
- Current and voltage command signal options
- · Open-loop, soft shift, and power saver modes
- Operating temperature -20 to +80 Deg. C (-4 to 176 Deg. F)
- CE certified

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