



# High Country Tek by Enovation Controls

## Single Output Proportional Controller: **HAU**

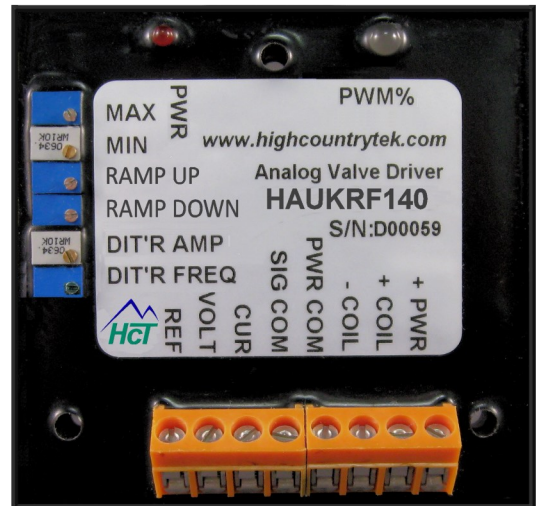
Electronic Control Solutions for the Global Fluid Power Industry

### Application Information:

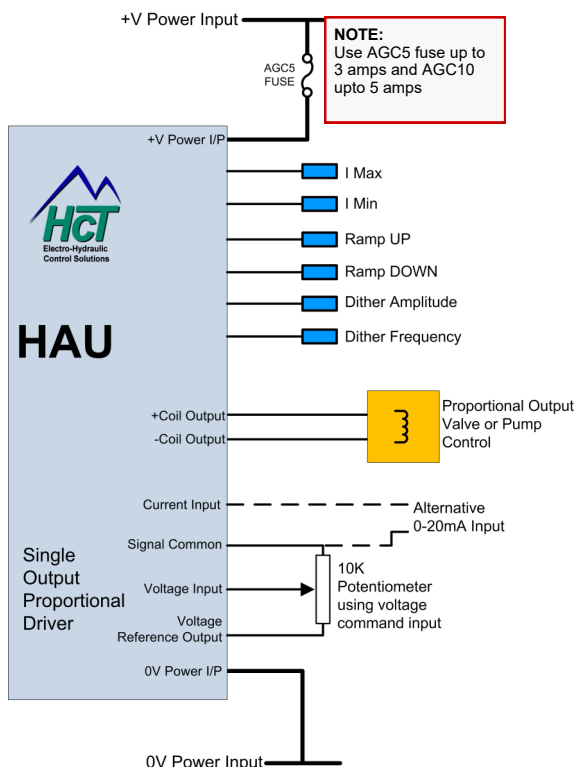
- **Valve coil driver module - single PWM output**
- One module for 12VDC or 24VDC coils/systems
- **Pressure or Flow control valves**
- Direct connection to joystick, potentiometer or remote command

### Product Feature Overview:

- **Compatible with all major hydraulic manufacturers products**
- Potentiometer adjustments for simple, quick optimization
- NO software or special tools / skills needed to set-up
- Multiple options for current ranges, up to 5Amps
- Connector options to suit environment of application
- Diagnostic LED indicators
- Mount directly to bulkhead / manifold or where needed



### Electrical Connection Diagram:



### Controller Specification Overview:

<b>Housing Type:-</b>	HCT 'encapsulated' block.
<b>Input Supply Voltage:</b>	11 – 30VDC ( Absolute Maximum )
<b>Input Supply Current:</b>	Valve Current Setting + 200mA Quiescent (Max)
<b>Command Input Type(s):</b>	Voltage ( VDC ) OR current ( mA )
<b>Command Input Value(s):</b>	0 to +5V, 0 to +10V or 0 to 20mA
<b>User Voltage:</b>	5V @ 5mA max ( 1KOhm limiter )
<b>Proportional Output:</b>	1x PWM up to 5A max current
<b>Dither Frequency :</b>	~30 to 200Hz ( adjustable )
<b>Dither Amplitude:</b>	~0 to 100% ( adjustable )
<b>Housing Material:-</b>	Black, Polycarbonate potting case
<b>Wire Connections:-</b>	8 way Terminal block with Weatherpack connectors as 'Q' option
<b>Connector type:-</b>	Screw terminals ( standard )
<b>Encapsulation:-</b>	Flameproof, 2 part epoxy resin - black
<b>Mounting:-</b>	3 x No. 8 ( 4.5mm ) screws .
<b>Temperature range:-</b>	-20 to +60°C ( operational )
<b>IP Rating:</b>	IP67 / 69K ( Module only ) derate for connector as required.



# Single Output Proportional Controller - HAU

## Controller Options:

## Dimensional Data:

**H A U K R F 1 4 0 -**

### Max. Current Range:

**W** = 0mA to 63mA  
**X** = 0mA to 125mA  
**Y** = 0mA to 250mA  
**Z** = 0mA to 500mA  
**E** = 0mA to 1A  
**K** = 0A to 1.7A  
**G** = 0A to 3A  
**M** = 0 to 5A

### Ramp Select:

**S** = Single pot. adjustment for up & down  
**R** = Individual adjustments for up & down

### Dither Frequency Pre-set by factory:

**Nxxx** = Pre-set - NO dither frequency adjust potentiometer installed  
**Fxxx** = Pre-set to user chosen dither frequency with dither adjustment

Frequency is in Hertz, use all three digits with leading 0 if required:  
i.e. 050 for 50Hz or 140 for 140Hz

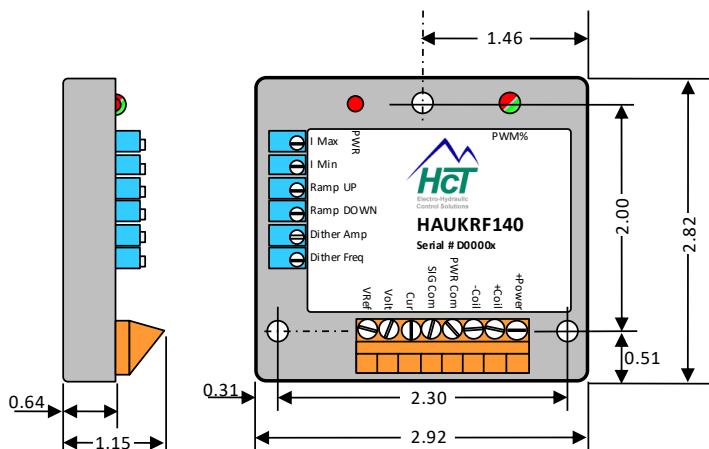
**NOTE:** If NO dither frequency is specified, the default is 140Hz

### Connector Type:

**NO Letter** ( i.e. **Blank** ) = Standard screw type terminal block  
**Q** = **WeatherPack option** - 4 way tower and 4 way shroud on 6 inch cables will be provided.

### 'Q' Option Mating Accessories:

**P/n: 999-10169** - Connector kit - 4-pin tower & 4-pin shroud (assembly required)  
**P/n: 999-10225** - Pre-assembled Harness with 3-Meter flying leads, automotive grade wire and 4-pin tower & 4-pin shroud connectors



### Notes:

- All dimensions in inches
- Unit weight is approx. 350 grams
- Mounting is via 3 x No. 8 holes ( 4.5mm ) on to flat surface
- Unit shown with ALL potentiometers possible
- ALL potentiometers are 10 turn variety with end 'clutch'
- ALL potentiometers adjust 'CLOCKWISE' to increase function
- Not to scale, please contact HCT for exact dimensions

### Diagnostic Indicators:

**PWR LED** - Lights when the power supply is above 10.5VDC, the unit WILL NOT FUNCTION correctly if the LED is OFF or BLINKING.

**PWM%** - This indicates the how much the output is driving the coil, RED ( full OFF ) to GREEN ( full ON ). The ratio of red to green indicates the duty cycle of the PWM output and can be used as a visual or troubleshooting aid.



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