



# High Country Tek, Inc.

## Hydraulic Fan System Controller: **HFS - 2**

*Electronic Control Solutions for the Global Fluid Power Industry*



### Application Information:

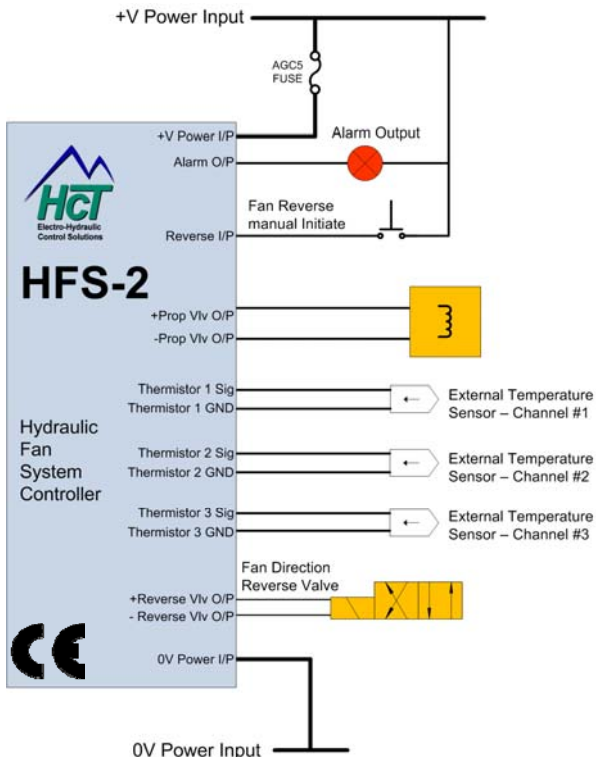
- Optimizes fan speed control relative to temperature requirements.
- **Engines or systems without J1939 capability.**
- Uni **or** Bi-Directional hydraulic fan drive applications.
- OEM, Re-power and Retro-fit opportunities.

### Product Feature Overview:

- Pre-written Windows™ software application, ready for user values.
- **3x discrete temperature zone sensor inputs**
- Automatic or Manually initiated fan reverse cycle
- Charge air priority/limiting and noise test features
- 1x PWM output for any make of proportional valve or pump control.
- 1x ON/OFF output for reverse fan direction valve
- 1x ON/OFF output for alarm integration into host system
- Open and short circuit cable protection with monitoring
- Heavy duty industry standard 2 part or WeatherPak connectors.
- System 'error' indicator LED with blink code.



### Electrical Connection Diagram:



### Controller Specification Overview:

- Housing Type:-** HCT unique 'encapsulated' block.
- Input Supply Voltage:** 10 – 32VDC ( Absolute Maximum )
- Input Supply Current:** Valve Current Setting + 200mA Quiescent (Max)
- Command Input Type:** 3 x 2 wire Thermistor, temperature
- Command Input Value:**  $\Omega$  only (Max temp = 50 $\Omega$  Min temp = 2M $\Omega$ )
- Proportional Output:** 1 x PWM up to 3.3A max current
- Reverse cycle I/P:** Lo → Hi logic input with S/W de-bounce
- Reverse valve Output:** 1 x ON/OFF up to 3.3A max current
- Alarm Output:** 1 x ON/OFF up to 3.3A max current
- Dither Frequency :** Software adjustable, ~30 to 250Hz
- Housing Material:-** Black, Polycarbonate
- Wire Connections:-** 2 Part or Weatherpack connectors
- Connector type:-** Weidmuller / Weatherpack ( Q option )
- Encapsulation:-** Flameproof epoxy resin
- Mounting:-** 3 x No. 8 ( 5mm ) screws .
- Temperature range:-** - 40 to +75 °C ( operational )
- NEMA/IP Rating:** NEMA 6P/68  
( Module only ) derate for connector as required.

## Ordering Guide:


To make certain we offer you the best product for your application, please contact our sales and customer support department at **High Country Tek, Inc.** in California to discuss your project.

Due to time zones, we recommend you use the E-mail address to guarantee a timely response or if you prefer, use the office numbers given below.

Either way, our experienced customer service personnel will be glad to work with you on your order


## Temperature Sensor Specifications:

Supplier / Manufacturer:	Coolant Temperature Sensors:		Air Temperature Sensors:	
	Part Number:	Notes:	Part Number:	Notes:
NAPA Autoparts	ECHTSC200	-	ECHTSC300	-
AutoZone	(0)47131	-	-	-
AC Delco	213-928	-	213-190	-
GM	15326386	Was 12146312	25036751	Was 12110446
Standard	TX3	-	AX1	-
GP Sorensen	TSU81	-	779-19001	-
Niehoff	DR134AK	-	TS83631	Was DR-136W
Wells	SU109	Includes connector	SU107	-
Wells	254	-	235	-
Conductite/Dorman	-	-	-	-
MSD	2310	Includes connector	2320	Includes connector



= Supplier

= Manufacturer



## Connector Details:

**HFS-2:** - 2 part 'Orange' connectors are:-

Weidmuller style SLA and BLS

### 6 way connector:

- Pin 1: Thermistor #3 Signal
- Pin 2: Thermistor #3 GND
- Pin 3: Thermistor #2 Signal
- Pin 4: Thermistor #2 GND
- Pin 5: Thermistor #1 Signal
- Pin 6: Thermistor #1 GND

### 8 way connector:

- Pin 1: Reverse cycle start input
- Pin 2: +VDC supply input
- Pin 3: +Prop. Valve O/P
- Pin 4: +Reverse valve O/P
- Pin 5: -Reverse valve O/P
- Pin 6: +Alarm O/P
- Pin 7: -Prop. Valve O/P
- Pin 8: 0V Power supply / GND

## Dimensional Data:

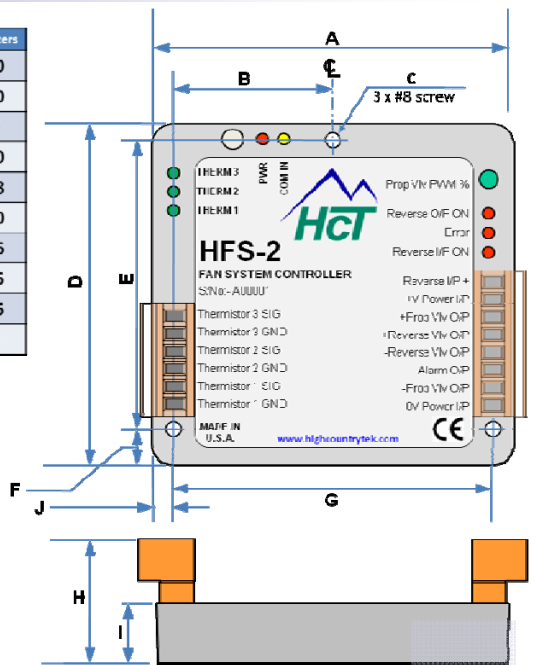
Label	Inches	Millimeters
A	3.77	96.0
B	1.89	48.0
C	∅ 0.186	5.0
D	3.82	97.0
E	3.10	78.8
F	0.46	12.0
G	3.25	82.6
H	0.1.6	41.5
I	0.64	16.5
J	0.26	6.5

### Notes:

Unit weight is approx. 250 grams

Not to scale, please contact HCT for exact dimensions

HFS-2 Module shown with Weidmuller connectors



## Need More Information ?

For the latest company and product information customer service, pricing, order placement and application support, contact us through E-mail at: [info@hctcontrols.com](mailto:info@hctcontrols.com)

[www.hctcontrols.com](http://www.hctcontrols.com)



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