



High Country Tek, Inc.

# Hydraulic Fan System Controller: HFS

Electronic Control Solutions for the Global Fluid Power Industry



## Application Information:

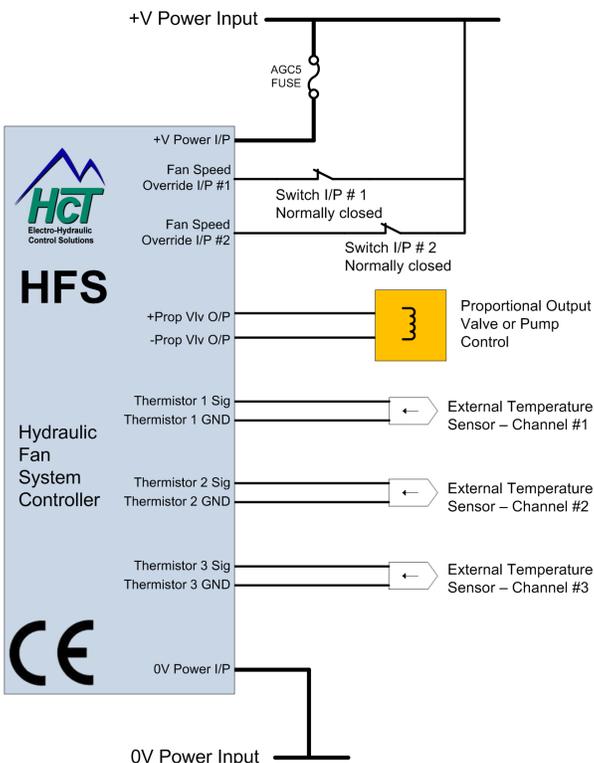
- Optimizes fan speed control relative to temperature requirements.
- **Engines or systems without SAE J1939 capability.**
- Uni-Directional hydraulic fan drive applications.
- OEM, Re-power and Retro-fit opportunities.
- On-road and Off-Road suitable mechanical package.
- Complimentary controller to expand existing system functionality.

## Product Feature Overview:

- Pre-written Windows™ software application, ready for user values.
- **3 x discrete temperature zone sensor inputs**
- 2x discrete switch inputs for fan speed override ( A/C on e.t.c. )
- 1x 3A PWM output for any make of proportional valve or pump control.
- Open and short circuit cable protection with monitoring
- Heavy duty industry standard Deutsch connector.
- System 'error' indicator LED with blink code.
- Unit uses Opto 3000 system for set-up and PC communications.



## Electrical Connection Diagram:



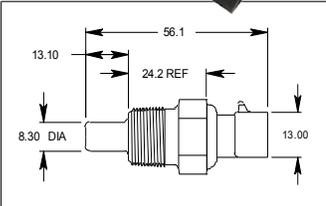
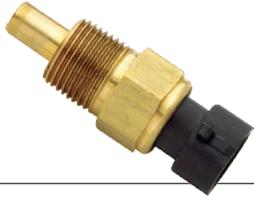
## Controller Specification Overview:

- 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 switch ( software selectable )  
2 x on/off inputs for fan speed override ( software selectable ).
- Command Input Value:** Ohms only ( Max temp = 50 Ω  
Min temp = 2MΩ)  
Additional 2 x Contact closure.
- Dither Frequency :** Software adjustable, ~30 to 250Hz
- Housing Material:-** Black, Polycarbonate
- Wire Connections:** 12 way male Deutsch—polarized
- Connector type:** DT15-12PA
- Encapsulation:** Flameproof epoxy resin
- Mounting:** 3 x No. 8 ( 5mm ) screws .
- Temperature range:** - 40 to +75 °C ( operational )
- NEMA/IP Rating:** NEMA 6P/ IP67, 69K  
( Module only ) derate for connector as required.



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## Temperature Sensor Specifications: 206-00083



Housing Type: Delphi Unique  
 Typical supply voltage: +5VDC  
 Dissipation Constant\*: 24mW/°C  
 Thermal Time Constant\*\*: 17.5 to 23.5 seconds  
 Temperature range: -40 to +150 °C  
 ( operational )  
 NEMA/IP Rating: NEMA 6P/68

Sensor Body: Brass  
 Connector Body: PBT 30%  
 Glass Filled  
 Hex Size: 18.9mm / 3/4"  
 Thread Size: 3/8' - 18 NPTF  
 Thread Sealant: GM09985473  
 Sealing Pressure: 145kPa  
 Installation Torque: 20Nm  
 Overall Weight: 40g

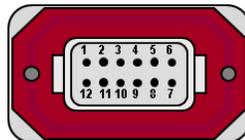
**Contact HCT customer service for more sensor options and information**

### Connector Details:

#### NOTE:-

View looking at 12 way male connector on HFS controller  
DT15-12PA

- Pin 1:- Thermistor #1 +signal input.
- Pin 2:- Thermistor #2 +signal input.
- Pin 3:- Thermistor #3 +signal input.
- Pin 4:- Over-ride Switch #1 I/P.
- Pin 5:- +Vin - 10 – 32VDC Power supply Input.
- Pin 6:- +Proportional Valve Output.
- Pin 7:- -Proportional Valve Output.
- Pin 8:- 0V Power Supply Input.
- Pin 9:- Over-ride Switch #2 input.
- Pin 10:- Thermistor #1 signal common
- Pin 11:- Thermistor #2 signal common
- Pin 12:- Thermistor #3 signal common



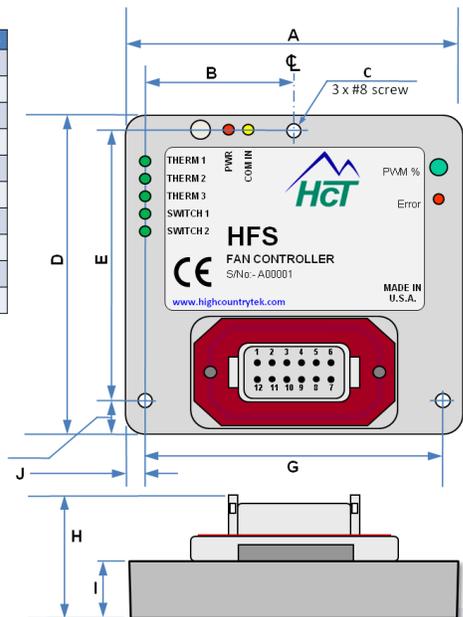
### Dimensional Data:

Label	Inches	Millimeters
A	3.77	96.0
B	1.89	48.0
C	Ø 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



### HCT Mating connector Parts Kit:- 999-10088

### 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



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