



High Country Tek, Inc.

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

Electronic Control Solutions for the Global Fluid Power Industry



Application Information:

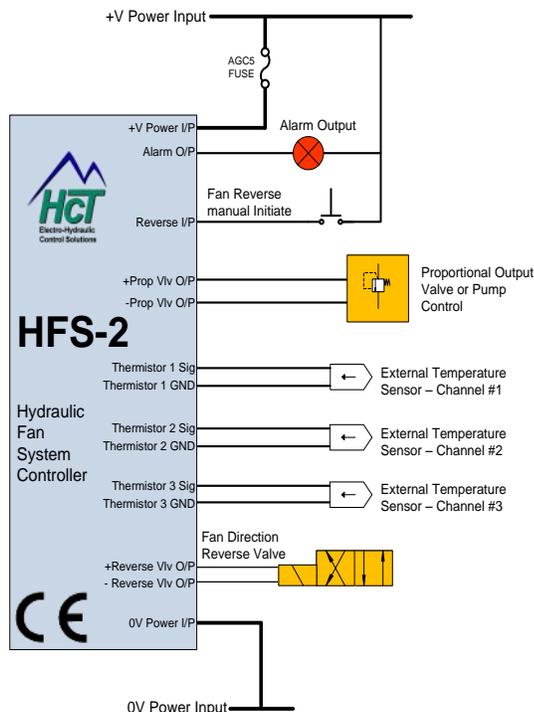
- Optimizes fan speed control relative to temperature requirements.
- **Engines or systems without SAE J1939 capability.**
- Uni or Bi-Directional hydraulic fan drive applications.
- OEM, Re-power and Retro-fit opportunities.
- On-road and Off-Road suitable mechanical package.
- Complimentary controller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

Product Feature Overview:

- Pre-written Windows™ software application, ready for user values.
- **3 x discrete temperature zone sensor inputs**
- Automatic or Manually fan reverse cycle
- 1 x PWM output for any make of proportional valve or pump control.
- 1 x ON/OFF output for reverse fan direction valve
- 1 x ON/OFF output for alarm integration into host system
- Open and short circuit cable protection with monitoring
- System 'error' indicator LED with blink code.
- **Unit uses HCT Opto 3000 system for set-up and PC communications**



Electrical Connection Diagram:



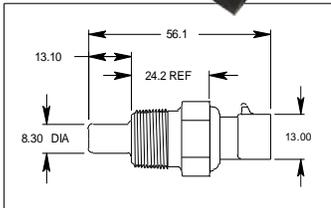
Controller Specification Overview:

- 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(s):** 3 x 2 wire Thermistor, temperature
- Command Input Value(s):** Ohms only (Max temp = 50Ω Min temp = 2MΩ)
- Proportional Output:** 1 x PWM up to 3.3A max current
- Reverse cycle I/P:** Lo to Hi logic input with software 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:-** Weatherpack connectors
- Connector type:-** Weatherpack (Q option) sealed
- 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:

1 x 6 way Weatherpack **FEMALE** for all thermistor inputs.

- Thermistor 3 SIG
 - Thermistor 3 GND
 - Thermistor 2 SIG
 - Thermistor 2 GND
 - Thermistor 1 SIG
 - Thermistor 1 GND
- } Female 6 way Shroud

2 x 4 way Weatherpack's for:

- Reverse I/P +
 - +V Power I/P
 - +Prop Vlv O/P
 - + Reverse Vlv O/P
- } Female 4 way Shroud

- - Reverse Vlv O/P
 - Alarm O/P
 - -Prop Vlv O/P
 - 0V Power I/P
- } Male 4 way Tower



HCT Mating connector Parts Kit: 999-10163

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

www.hctcontrols.com

Dimensional Data:

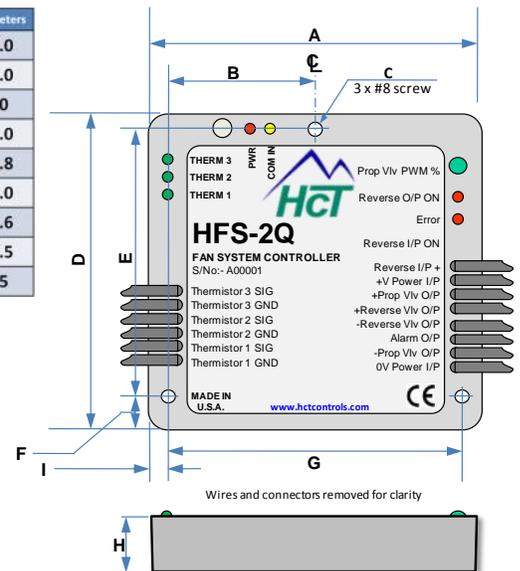
Label	Inches	Millimeters
A	3.77	96.0
B	1.89	48.0
C	Ø 0.186	5.0
D	3.82	97.0
E	3.10	78.8
F	0.46	12.0
G	3.25	82.6
H	0.64	16.5
I	0.26	6.5

Notes:

Unit weight is approx. 250 grams

Not to scale, please contact HCT for exact dimensions

HFS-2 Module shown with 'Q' option Weatherpack Connectors



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