



High Country Tek, Inc.

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

Electronic Controller Solutions for Mobile, Industrial & Marine Applications

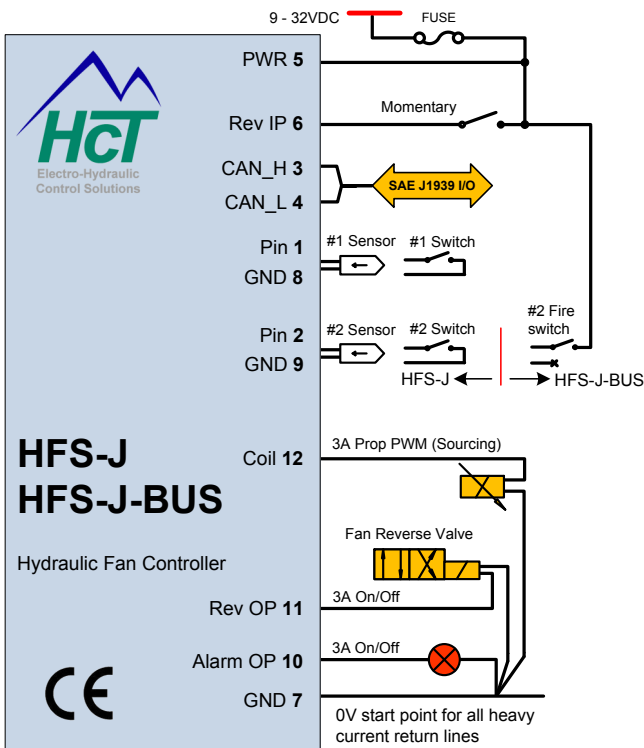
## Product Feature Overview

- Optimizes hydraulic fan speed to reduce HP and fuel consumption
- SAE J1939 CAN messages and 2x temperature sensor / switch inputs
- Bi-directional fan control for radiator 'Purge' or 'De-Ice'
- PC based Graphical User Interface (GUI) for system configuration/diagnostics
- SAE J1455 (load dump) compliant power protection
- Diagnostic LED's with system "status" blink code indication
- USB or RS-232 communications with PC for setup/diagnostics
- External Data logging



RS232 connector removed for clarity

## Basic Connection Diagram



J1939 inputs - Charge air T, Transmission oil T, Engine coolant T, Engine RPM.

Other cooling demand inputs upon customer request

## Controller Specification Overview

<b>Housing Type</b>	HCT encapsulated block, flameproof
<b>Power Supply Voltage</b>	9 to 32VDC ( <i>Absolute Maximum</i> )
<b>Current Consumption</b>	Load current + 200mA Quiescent ( <i>Max</i> )
<b>Command Inputs</b>	SAE J1939 CAN messages for charge air, transmission oil & water temperature 1x option selection switch ( <i>ON/Off</i> ) 2x inputs for temp sensor/switch (#1 & #2) #2 switch is fire switch for HFS-J-BUS ( <i>Max temp = 50W, min temp = 2mW</i> )
<b>Outputs</b>	1x 3A proportional PWM output ( <i>sourcing, short circuit protection and open circuit alert</i> ) 2x 3A On/Off output for reverse coil and alarm indicator
<b>PWM Dither Freq.</b>	Software adjustable - 33 to 500Hz
<b>Module Connector</b>	DTF15-12PB, 12-way Male
<b>Communication</b>	4-way Weatherpak for RS232
<b>Housing Material</b>	Black, polycarbonate
<b>Mounting</b>	3x No.8 (5mm) SAE Grade 2 screws
<b>Temperature Range</b>	-40 to +85°C ( <i>Operational</i> ) -60 to +90°C ( <i>Storage</i> )
<b>NEMA/IP Rating</b>	NEMA 6P/IP67
<b>CAN Data Rate</b>	250Kbps and 500Kbps



# Hydraulic Fan Controller HFS-J/HFS-J-BUS

## Accessories



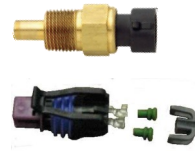
### CD-HFS-J

- PC setup software
- System diagnostics
- Data logging feature



### Connectors / Cables

- 999-10156 12-pin harness (3M)
- 999-10155 12-pin connector kit
- 999-10075 Comm. cable (4way/RS232)
- 108-00119 Comm. cable (USB/RS232)



### Liquid Thermistor (-40 to +150°C)

- 206-00083 (3/8"-18NPT)
- 206-00083M (M12x1.5)
- 999-10213 (mating connector)



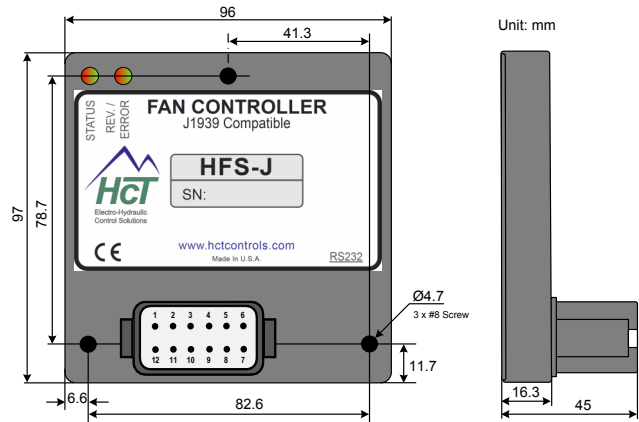
### Dry Thermistor (-40 to +150°C)

- 206-00084 (3/8"-18NPT)
- 999-10213 (mating connector)

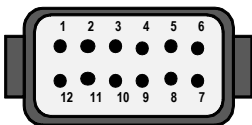
## Connector Details

## Dimensions

HFS-J/HFS-J-BUS Connector Designation	
12-way Deutsch Connector DTF15-12PB (Male, Plug)	
PIN	Name
Pin 1	Thermistor/Switch input +
Pin 2	Thermistor/Switch input + for HFS-J Fire switch input for HFS-J-BUS
Pin 3	CAN_HI (SAE J1939)
Pin 4	CAN_LO (SAE J1939)
Pin 5	9-32VDC power supply input +
Pin 6	Reverse fan input (Momentary)
Pin 7	0V - Power GND
Pin 8	0V - Signal GND
Pin 9	0V - Power GND
Pin 10	3A max On/Off for alarm indicator (sourcing)
Pin 11	3A max On/Off for reverse coil (sourcing)
Pin 12	3A Proportional PWM current output (sourcing)



- Weight is approx. 250g.
- Mount to a flat cool surface.
- Use Three #8 SAE Grade 2 screws.



HFS-J Qwik-Pick Solution Kit

999-10259

HFS-J-BUS Qwik-Pick Solution Kit (#2 switch is fire switch)

999-10274

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



**High Country Tek, Inc.**

208 Gold Flat Court  
Nevada City, CA, 95959  
Tel: (1) 530 265 3236  
Fax: (1) 530 265 3275

