

 <i>blue mountain avionics</i>	Product	EFIS/One	
	Release	N/A	
	Subject	Installation and Calibration of Van's Capacitive Fuel Tank Interface.	
Engineering Note	Revised	10/3/2003	Malcolm Thomson

Overview:

This document outlines the procedure to mount, connect, and calibrate the interface board between your EFIS One and the capacitive fuel probes in Van's RV Series aircraft.

Items Required:

Interface Board w/connector and pins
 BNC connector and coax cable (length determined by mounting location)
 Crimp tool for connector pins
 20 gauge wire

Mounting:

The mounting location of the board is up to the builder, but we recommend putting it near the fuel tank BNC receptacle between the fuselage and wing. Once you have the board wired up and calibrated, go ahead and "pot" the board with the potting material of your choice (available in electronics stores) and mount it to the aircraft.

Connections:

Connect the board as follows: (reference picture on page 2)
 Pin 1 – BNC Center Pin
 Pin 2 – not connected
 Pin 3 – EFIS/One, Voltage channel of your choice (Analog 2, pin 11, 12 or 13)
 Pin 4 – BNC Shield
 Pin 5 – EFIS/One, Ground (Analog 2, pin 3,16, 17 or 18)
 Pin 6 – EFIS/One, +12 volts (Analog 2, pin 2 or 15)

Calibration:

Power up the EFIS and go to the Calibration screen for the channel you set up for the fuel level (4,5, or 7). Determine the amount of “unusable” fuel for your application and pour it into the tank. This becomes your “Empty” reference. Copy the A/D value from the window and enter it in the first A/D field. Directly across from this, enter “0”. Next, add two gallons of fuel and let the A/D value settle out. Enter this value in the next row and “2” in the display column. Add two more gallons, allow the A/D to settle, and enter it in the next row, with “4” in the display column. Continue this pattern (2 gallon increments) until your tank is full.

Interface Board and Pin Out:

