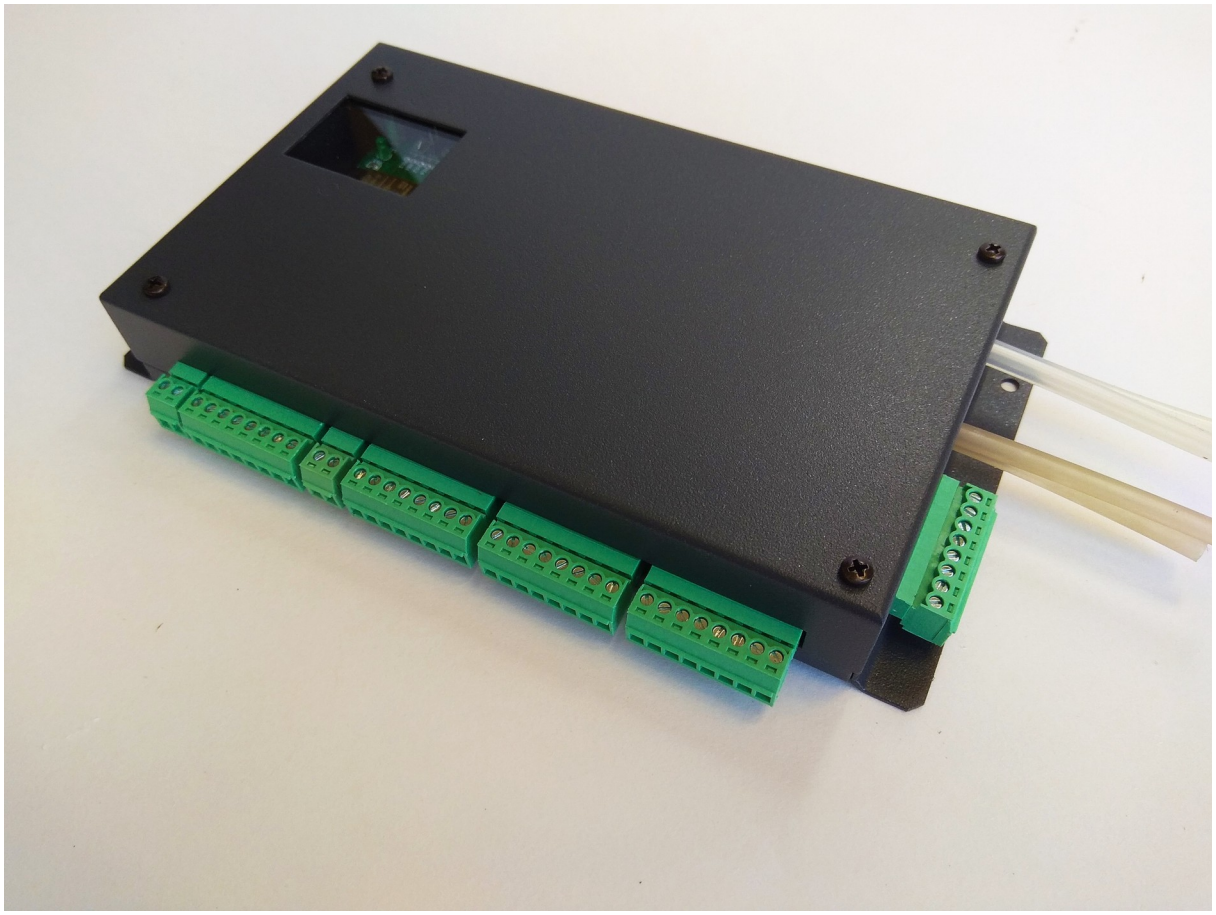
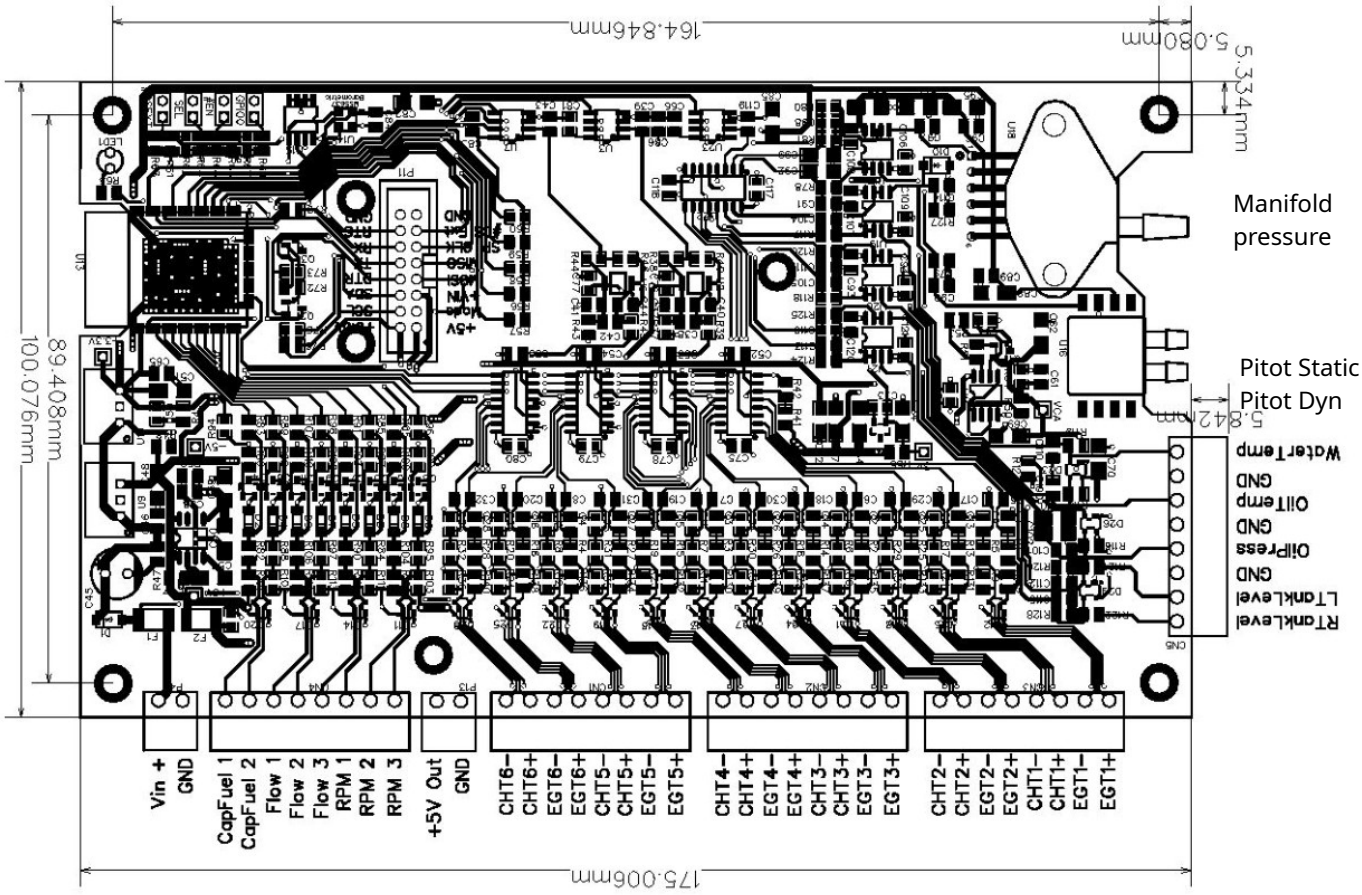
You are installing and using an experimental electronics in your aircraft at your own risk.
The equipment is NOT certified instrument ! Manufacturer accept no liability whatsoever for any sort of damage related to use of either electronics or app software

WIFI SSID: Sensorboard Password: 1234567890
Bluetooth pairing code: 1379

If you use dual tablet setup always connect WIFI tablet first, than BT.

For installation make sure that WIFI, BT window on the housing is somewhat visible for the tablet or the smartphone installed for good Bluetooth, Wifi reception





Vin + is 11...15 V DC from the aircraft power system.

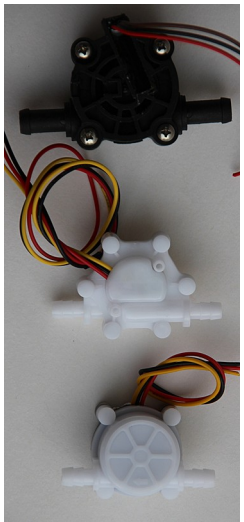
+ 5 VDC outputs are limited to the sensor or electrionics use to next terminal. Do not load anything here more than the sensor next to it. Max load limit 500mA

EGT and CHT probes are standard K TYPE sensors, polarity sensitve. Normally Red is + the other color is - If you read incorrect temperatures swap the wires.

If you use capacitive fuel probes wire the Ltank Level – Rtank level inputs.
If you have a float type of fuel sensor use the Ltank Level-R tank level inputs
If youhave one fuel tank always use the first terminals of these inputs (Ltank level or Cap fuel 1 input)

RPM input is limited to 5 volt changes. You need 5 V hall sensor, optical reflective switch or use Sky Labs electronic to connect here higher voltages like wires winded around the spark plug cable.
Choices to get RPM data is either to use a proximit sensor with a neodym magnet on flywheel or an optical rpm counter with a reflective foil. Both has to be working from 5...12 V range.

<u>Three types of flow meters available</u>:



For larger engines from minimum 5 l/h up to 60 l/h fuel consumption.
Fuel flow correction setting: 1818 impulses per litre

For smaller engines from minimum 1 l/h up to 10 l/h fuel consumption.
Fuel flow correction setting: 3450 impulses per litre

For larger engines from minimum 1 l/h up to 30 l/h fuel consumption.
Fuel flow correction setting: 5000 impulses per litre

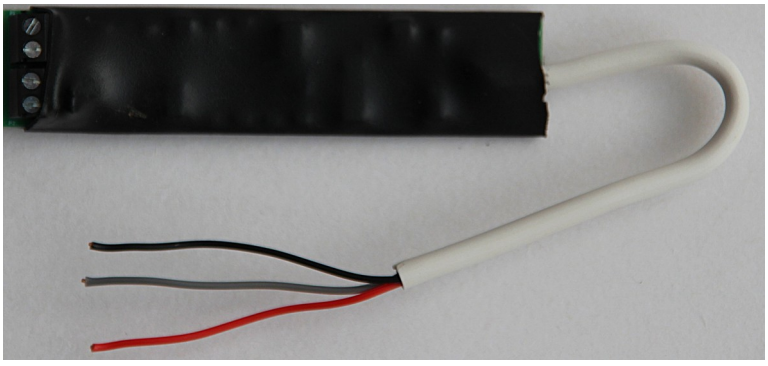
Connection: +5V DC RED
GND BLACK
Signal Yellow or Brown

Always pay attention to the fuel flow direction and installing the sensor vertically. For correction please use the followings.: After installing a sensor make sure you mark a 1 liter fuel level available for calibration. Set the fuel correction menu to 1000 or something similar easy to calculate with. Without running the engine but the electronics switched on, flow the 1 liter fuel over the flow sensor and watch how much fuel it consumed. If your fuel level indication indicates more or less means that either the unit provides more or less impulses per liter.
Example 0.5 L fuel consumed from the bottle while your fuel level indication on the smartphone shows 1 L. That means that 1000 impulses = 0.5 l of fuel. 1000 / 0.5 = 2000 so re set your Fuel consumption calibration to 2000 in the menu of the software.

RPM signal processing circuit.
If you dont use a 5VDC hall sensor, optical sensor or any other switch to obtain enine RPM than you may use Sky Lab circuit to get signal from the spark plug cable BY WINDING A FEW ROUNDS ON THE INSULATED CABLE ! or from directly the designated ignition wire.
Both negative and positiv ignition signal imput is highly protected to ensure safety of the microporcessor controlled central unit.
If you have a standard Rotax 912 or similar RPM output, connect to the following outputs.
Behind this terminal block , there is a plug on Jumper which increases the sensitivity of this circuit. Jumper on, high sensitivity, jumper off low sensitivity. (Jumper usually required for 912 direct RPM outputs)

Negative pulse ignition signal
Positive pulse ignition signal
RPM output from Rotax 912
GND

GND
IMP SIGNAL
+5 V DC



Capacitive fuel probe

Its made to required length, do not cut. Any galvanic short contact between the outer tube and the inner rod will result shortcut and makes the sensor faulty. Faulty sensors are not repearable.
The calibration to level is done by the APK oftware there is no adjustment points on the fuel probes.
Immerse the sensor fully into the used fuel type, than pull out. Wait a few seconds and the frequency is shown on the calibration menu of the Wingman APK will be your LOW point. Hit SET. Than immerse the fuel sensorfully as your tank maximum. This will be your FULL position. Hit Set.
You are done with calibration.

+ 5VDC RED
GND BLACK, GREEN or BLUE
SIGNAL YELLOW or WHITE

Airspeed compensation:

The Displayed speed is : ((Real or reference speed+TasA)*TasB)+TasC

Example the real speed is 120 kmh, the Displayed is 130kmh than a Tas A should be corrected by -10.

If the Displayed speed is correlating with the Displayed by a linear value for example 100....132, 90...120 e,tc than its a 10% linear change so Tas B should be as 1.1

So look at the values in a few reference speed and calculate accordingly.

Default values TasA=0, TasB=1, TasC=0

TasA and TasC is a number without decimal, TasB is a decimal value (0.9 = 90%, 1.1= 110%)