

Instruction Manual for FrSky Sensor Hub and Sensors

1 FrSky Sensor Hub (FSH-01)

FrSky Sensor Hub is recommended to connect digital side port (G, TX, RX) of FrSky telemetry receiver and FrSky sensors by the provided cable, to serve as an information collecting and processing center, monitor the model status and feedback all data back to FrSky DHT-U.

Dimension: 37*30*8mm

Weight:

Operating Voltage Range: 4~10V

Operating Temperature Range: -20~80℃

Feature: Firmware upgradable

Definition:

Fuel: Fuel Gauge Sensor

GPS: GPS

Vario: Variometer Sensor

Volt: Lipo Voltage Sensor

Temp1/2: Temperature Sensor



Power: Power Supply

RPM: RPM Sensor

Acc: Triaxial Acceleration Sensor

Data: use provided cable to connect to digital side port (G, TX, RX) of FrSky telemetry receiver

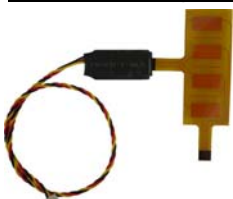
Installation:

It is recommended to take the length of all sensors' wires into consideration before mounting, and use double-sided tape to install FrSky sensor hub at an appropriate place in the model.

2 FrSky Sensors

Different sensors facilitate to monitor different data, such as fuel lever, speed, longitude, latitude, altitude, temperature, RPM, acceleration, etc. If the model is driven by battery, users could use in-built or external battery voltage sensor to monitor model's battery voltage.

2.1 Fuel Gauge Sensor (FGS-01)



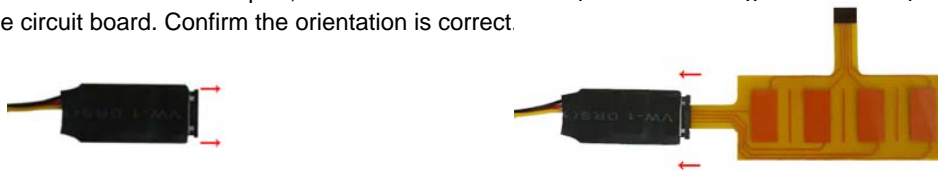
Measurement Levels: Empty, 1/4, 2/4, 3/4, Full

Length of the Sensor Film: 62mm

Installation: Use double-sided tape to attach both circuit board and sensor film firmly to the outside of the fuel tank.

How to replace the sensor film:

Lift the locking tab on both sides of the port, insert the sensor film and press the locking tab back into place to secure the sensor film in the circuit board. Confirm the orientation is correct.



Note: The fuel tank **MUST** be empty at the start of this process for the sensor to accurately read the fuel level.

2.2 GPS (GPS-01)



GPS feedbacks various data, such as speed, longitude and latitude.

Longitude: dddmm.mmmm E/W

Latitude: ddmm.mmmm N/S

Installation: Use double-sided tape to install the GPS on any appropriate surface of the airframe.

Note: Up right position is recommended.

2.3 Variometer Sensor (FVAS-01)



Measurement Range of Altitude: 0~9000m

Accuracy: 1m

Installation: Use double-sided tape to install the variometer sensor on any appropriate surface of the airframe.

Note: Wind will affect the altitude reading.

2.4 Lipo Voltage Sensor (FLVS-01)

FrSky lipo voltage sensor will be released quite soon, which can monitor voltage for each lipo. Current FrSky voltage sensor (FBVS-01) is suggested to be connected to telemetry receiver's analog ports (A1 & A2).

2.5 Temperature Sensor (TEMS-01)



Up to two temperature sensors can be used at the same time. They are commonly used to read temperatures of model accessories, such as electric motor, ESC, glow and gas engine cylinder head, battery, muffler, voltage regulator, BEC, tailpipe and ambient air.

Measurement Range: -20~250 degrees Celsius/ -4~482 degrees Fahrenheit

Accuracy: 1 degree Celsius/ 1 degree Fahrenheit

Installation: Use zip ties to hold the temperature sensor tightly against the accessory that requires temperature reading.

2.6 RPM Sensor (RPMS-01)



RPM sensor reads RPM data by using an optical sensor.

Measurement Range: 0~60000r/min

Installation: Point the RPM sensor straight up at any accessory that requires RPM reading.

Note: Indoor alternating current lighting will affect the RPM reading.

2.7 Triaxial Acceleration Sensor (TAS-01)



Measurement Range: $\pm 8g$ ($9.8m/s^2$)

Accuracy: 0.016g

Installation: Use double-sided tape to install the triaxial acceleration sensor on any appropriate surface of the airframe. X/Y/Z axis has been labeled on the sensor.