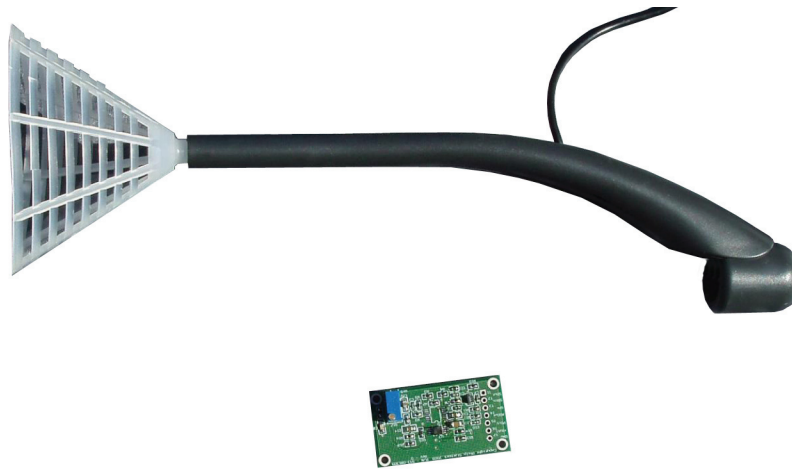


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Fan Anemometer Signal Conditioner



Description

The fan anemometer signal conditioner was designed to convert the signal from fan type airspeed sensors into an analog voltage that can be recorded by data loggers and similar instrumentation and telemetry system used in the flight testing of parachute and unmanned aerial vehicles.. This device is one of a number of modular signal conditioners that have been developed to support the instrumentation requirements of the telemetry and design engineering community. These include; Strain Gage / Wheatstone Bridge Amplifier Signal Conditioner, Barometric Pressure Sensor, Tri Axis Accelerometer, Differential Pressure Sensor (suitable for use with pitot / Prandtl tube for airspeed), tri axis rate gyroscope, and six channel switch closure event to single channel analog output encoder. The anemometer signal conditioner may be used with a variety of rotating blade or cup air speed sensors such as those from Flytec USA shown below. (http://www.flytec.com/Products/Air_Speed_Sensors.htm)



Flytec Paragliding Airspeed Sensor



Flytec Hang Gliding Airspeed Sensor

FEATURES:

- Power Supply Voltage: +5.3 to +26VDC, Note device rated for 60VDC maximum.
- On board radio frequency interference (RFI) attenuation tom minimize the effects of external RFI interference.
- Remote power enable: pull enable terminal to ground to turn device off, leave open or apply $\geq 2V$ to enable device (Note: Pin has 10K Pullup Resistor to (+) Power In).
- 0 to +5.0V signal output range (Adjustable).
- Integral 10 Hz four pole Butterworth antiailising filter.
- Potentiometer adjustment of range span.
- Typical output load: $\geq 10K$ ohms
- Operating Ambient Temp. Range: $-40^{\circ}C$ to $+85^{\circ}C$
- Storage Temperature: $-65^{\circ}C$ to $+150^{\circ}C$

CONNECTIONS:

Pin 1 – Sensor Signal Output.

Pin 2 – Sensor Power Return.

Pin 3 – Sensor Present (Indicates that Sensor is connected to signal conditioner).

Pin 4 – Airspeed Output (To Instrumentation System)

Pin 5 - Power Disable Input (Leave Unconnected for normal operation / 0V Disable, $\geq 2V$ Enable)

Pin 6 - (+) Power IN (+5.3 to +26VDC)

Pin 7 - GND (Power Return / Output Signal Return)

CIRCUIT BOARD PHYSICAL DIMENSIONS, MOUNTING, and TERMINAL HOLE LOCATIONS:

