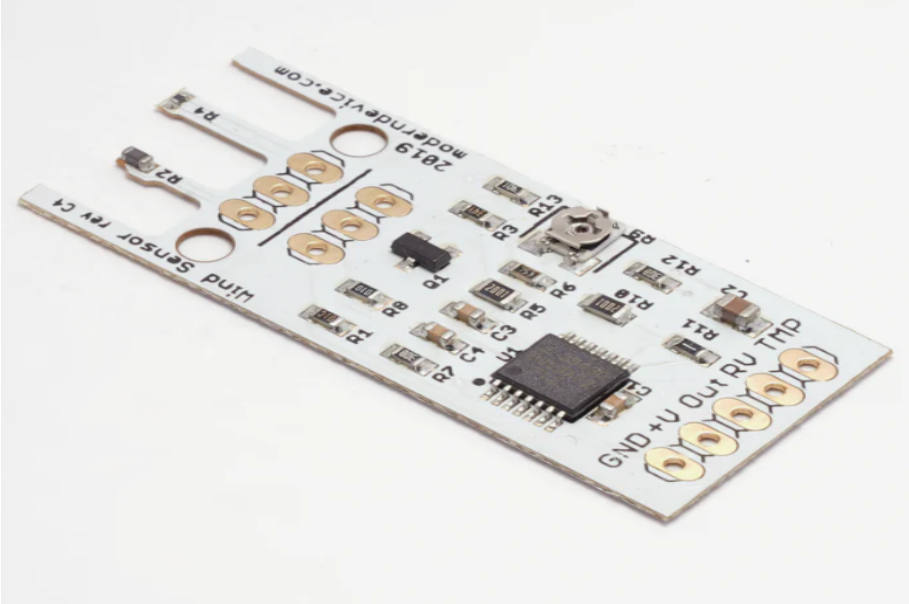
Wind Sensor Rev. C

Low Cost Thermal Anemometer Sensor



Wind Sensor Rev. C is a compact hot-wire thermal anemometer designed for low to medium airflow measurement. The sensor provides analog outputs for airflow and temperature monitoring and is suitable for Arduino, HVAC, room occupancy sensing, weather monitoring and human breath detection.

Key Features

• Hot-wire thermal anemometer
• Analog airflow output
• Temperature output
• 4–5 VDC operation
• Sensitive to very low airflow
• Adjustable zero calibration trimmer

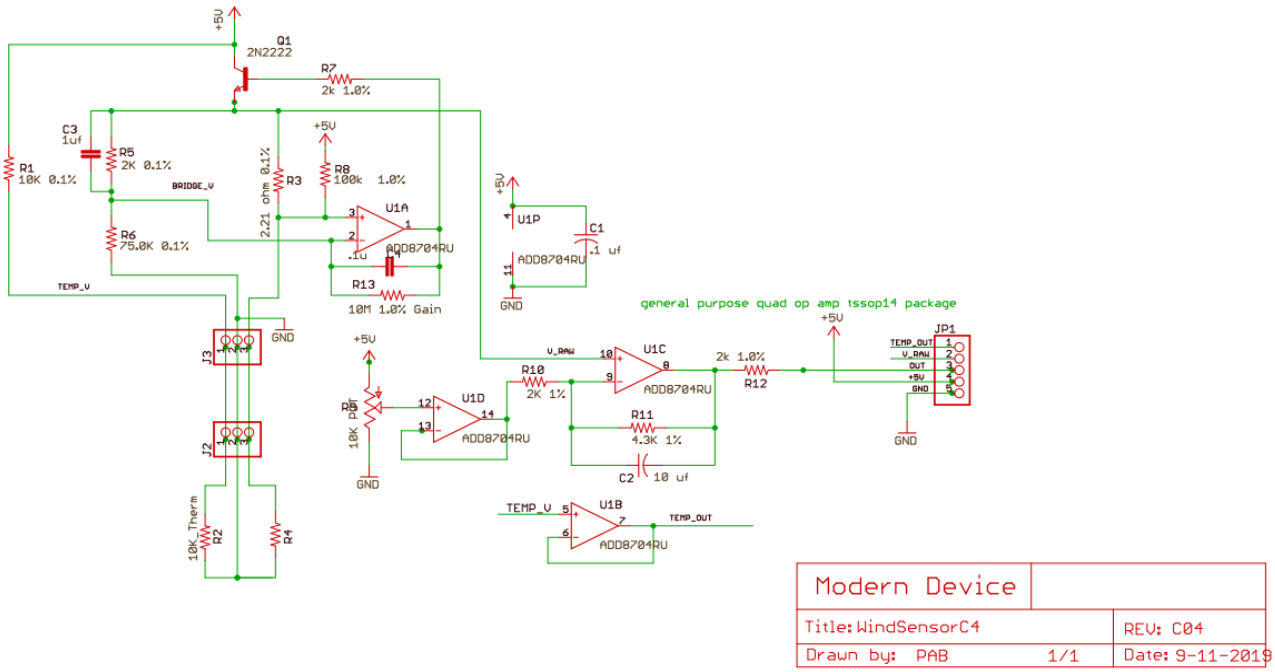
Electrical Specifications

Supply Voltage: 4–5 VDC
Supply Current: 20–40 mA
Output Signal: Analog 0 to VCC
Wind Velocity Range: 0–60 mph
Warm-up Time: Approximately 10 seconds
Dimensions: 0.68 × 1.59 × 0.25 inch

Applications

Human breath detection, HVAC monitoring, room occupancy detection, indoor airflow measurement, weather stations and educational projects.

Schematic



Pin Description

GND : Ground
+V : Regulated 5 V supply
OUT : Amplified airflow output
RV : Raw airflow output for calibration
TMP : Temperature output

Technical Notes

The sensor should be powered from a regulated supply for best accuracy. After power-up allow approximately 10 seconds for thermal stabilization. The onboard trimmer is used to adjust the zero-wind output level. Temperature changes affect sensor output and compensation may be required for precision measurements.

Calibration

Place the sensor in still air and adjust the trimmer for the desired zero-air output voltage. Lower zero settings increase high-end measurement range. The RV output is recommended for software linearization and calibration.

Reference

Modern Device Wind Sensor Rev. C
GitHub: https://github.com/moderndevice/Wind_Sensor