



## Testing the IceFree NPN Anemometer

### INTRODUCTION

The NRG IceFree NPN Anemometer uses a Hall Effect switch to create a square wave output. By checking the voltage output and current draw of the sensor its health can be determined. The sensor portion of this IceFree anemometer will function on 5-24 V DC excitation and draw no more than 9mA of current.

### TOOLS REQUIRED:

- 5 to 24 V DC source (24V DC source recommended to simulate turbine installation)
- Digital Voltmeter (DVM) set to 200 V DC scale
- Two clip leads

### INSTRUCTIONS:

Signal Output Check:

- a) Connect power to anemometer
  - i) Connect Black (-) lead to DC (-)
  - ii) Connect Red (+) lead to DC (+)
- b) Monitor output voltage while slowly spinning anemometer head
  - i) Connect Black DVM lead to the sensor's Black (-) lead
  - ii) Connect Red DVM lead to the sensor's Transparent (signal) lead
  - iii) Watch DVM while slowly spinning anemometer head. Reading should shift from 0V to 24V (or whatever source voltage is) and back.

