



## Testing 200M Wind Vane

### Introduction

The NRG 200M Wind Vane is a magnetic encoder-based sensor. The functionality of the sensor can be verified by measuring the raw voltage output from the sensor.

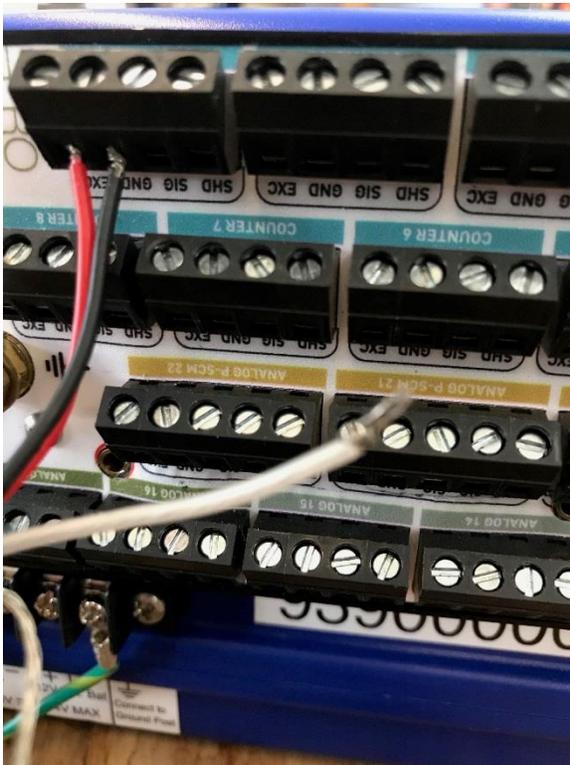
### Tools Required

- Digital Voltmeter (DVM)
- SymphoniePRO Data Logger or 4.5 v DC – 15 v DC Power Supply
- Small NRG Screw Driver

### Test

The following instructions assume you are using a SymphoniePRO Data Logger as the 12 v DC power supply. If a logger is not available a 4.5 v DC to 15 v DC power supply can be used in its place.

- Disconnect the 200M from the current wiring on the SymphoniePRO Data Logger
- Connect the Excitation (Red) and Ground (Black) wires to a Counter Channel on the SymphoniePRO logger:



- Set the Digital Voltmeter to the 20 v DC scale.
- Connect the ground probe from the Voltmeter to the screw on the Ground (GND) terminal and the positive probe to the Signal (white) sensor wire.
- The Voltmeter should give the following readings:



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| Vane Direction  | Voltage   | Vane Position  |
|---|---|--|
| <b>North</b> (nose of vane and notch on body aligned) | Approximately 0.007 v DC<br><br>Move vane to either side of the notch to see it change from 0.007 to 2.5 v DC |   |
| <b>East</b> (90° to the right of the notch)           | Approximately 0.632 v DC  |    |
| <b>South</b> (180° from the notch)                    | Approximately 1.257 v DC  |  |
| <b>West</b> (90° to the left of the notch)            | Approximately 1.882 v DC  |  |