

# 200M WIND VANE

## TECHNICAL PRODUCT SHEET



### Overview

The 200M Wind Direction Vane features a remarkably accurate sensing element that produces no dead band, achieving lower uncertainty and 360° continuous measurement.

### Specifications

Measurement Range	0 - 360°
Signal Type	Analog DC Voltage
Transfer Function	Default Slope: 147.91/V Default Offset: -1.460
Output Signal	0.007 to 2.5 VDC
Supply Voltage	4.5 to 15 VDC
Supply Current	2.5 mA
Sensor Cable	3 conductor (3C), 20 AWG, Shielded
Mounting	13mm (0.5") diameter mast

### Tools Required

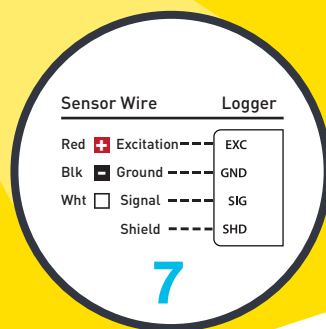
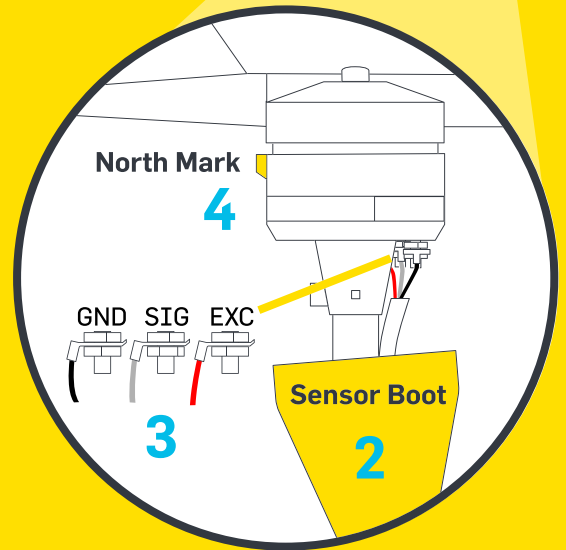
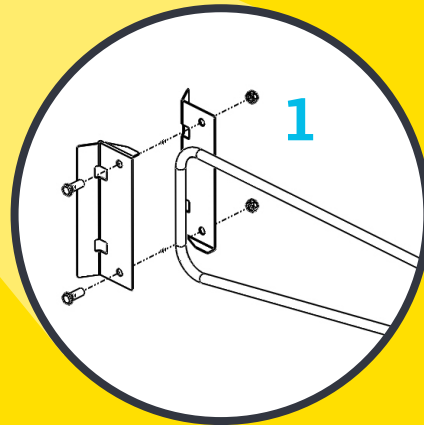
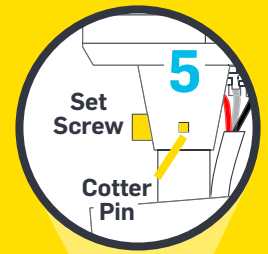
- #2 Phillips Screwdriver
- 1/4" Nut Driver
- Small Flathead Screwdriver
- 9/16" Wrench
- 5/16" Nut Driver



**NRG**Systems®

## 200M Wind Vane Installation Process - LOGR | Solar

1. Install the 1.53m mounting boom according to the diagram. Use 9/16" wrench and socket to secure brackets to boom. Feed hose clamps through each bracket hole. Use 5/16" nut driver bit to secure boom to tower.
2. Place the sensor boot on the end of the mounting boom and run the cable through it.
3. Wire the three conductor (3C) sensor cable to the wind vane terminals. Use 1/4" nut driver to tighten nuts.
4. Place the sensor onto the end of the mounting boom, making sure the north mark on the body of the sensor is pointing down the boom, towards the tower.
5. Secure the sensor to the boom by inserting the cotter pin and tightening the set screw with a Phillips screw driver.
6. Wrap and/or secure the cable along the boom and down the tower to the data logger.
7. Wire the sensor cable into the data logger wiring panel.
8. Program LOGR | Solar logger.



NRG Systems | Status | Logger | Sensors | Support

LOGR | Solar Data Logger  
Site: Crown Hill Campus  
Serial Number: 94309384

### Analog Channel Configuration

Port A6 Ch 12

Enable Configuration ☒ Enabled

1	Sensor Type: NRG 200M Vane	Description: NRG 200M Vane	Units: Deg	Slope: 147.9100	Offset: -1.4600
2	Serial Number: 100700003192	3	Height (in): 0.00	4	Elevation Angle: 0.0
5	Vane Mounting Angle: 0.0	6	Gust Source Channel: 401-NRG S1 Anemometer	Boom Bearing (Deg): 0.0	Modbus Address: 10050

Back Reset Done

## 8 LOGR | Solar Logger Programming

Use the LOGR | Solar UI to program the sensor settings into the data logger Analog Channels:

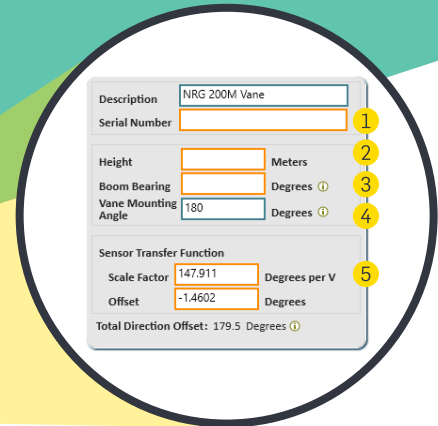
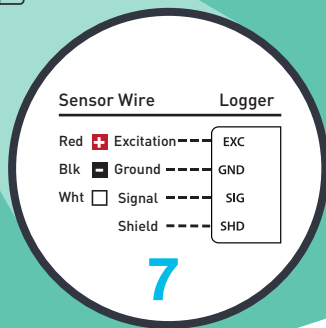
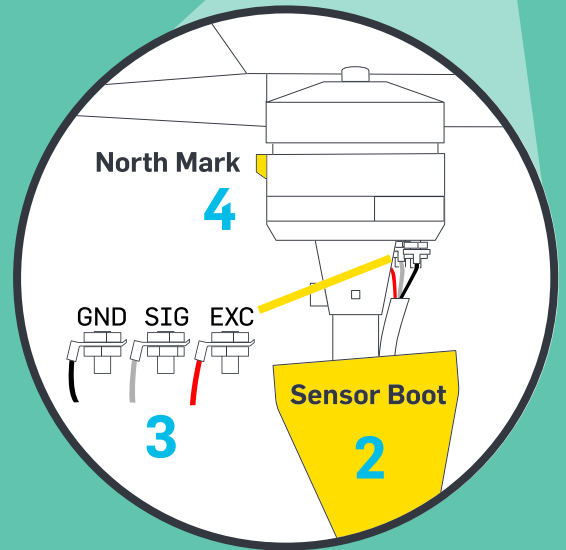
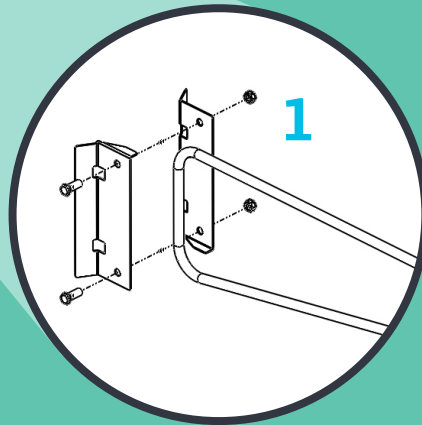
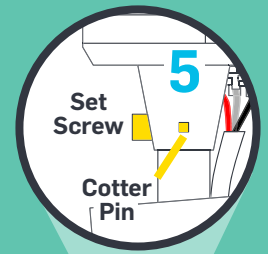
1. Select the NRG 200M Vane from the sensor type dropdown menu.
2. Enter the serial number.
3. Enter height of vane nose.
4. Enter boom bearing. This indicates the positive degree value of the boom angle relative to true north.
5. Enter vane mounting angle. This defines the angle of the sensor "North Mark" relative to the mounting boom. A mounting angle of zero degrees indicates the north mark is pointing away from the tower; an angle of 180 degrees indicates the sensor north mark is pointing towards the tower.
6. Select a wind speed sensor (anemometer) from the dropdown menu for the Gust Source Channel (if present).



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## 200M Wind Vane Installation Process - SymphoniePRO

1. Install the 1.53m mounting boom according to the diagram. Use 9/16" wrench and socket to secure brackets to boom. Feed hose clamps through each bracket hole. Use 5/16" nut driver bit to secure boom to tower.
2. Place the sensor boot on the end of the mounting boom and run the cable through it.
3. Wire the three conductor (3C) sensor cable to the wind vane terminals. Use 1/4" nut driver to tighten nuts.
4. Place the sensor onto the end of the mounting boom, making sure the north mark on the body of the sensor is pointing down the boom, towards the tower.
5. Secure the sensor to the boom by inserting the cotter pin and tightening the set screw with a Phillips screw driver.
6. Wrap and/or secure the cable along the boom and down the tower to the data logger.
7. Wire the sensor cable into the data logger wiring panel.
8. Program SymphoniePRO Logger.



## 8 SymphoniePRO Logger Programming

Use the SymphoniePRO Desktop Application to program the sensor settings into the data logger:

1. Enter serial number
2. Enter height of vane nose
3. Enter boom bearing. This indicates the positive degree value of the boom angle relative to true north.
4. Enter vane mounting angle. This defines the angle of the sensor "North Mark" relative to the mounting boom. A mounting angle of zero degrees indicates the north mark is pointing away from the tower; an angle of 180 degrees indicates the sensor north mark is pointing towards the tower.
5. Update scale factor & offset with factory calibration report

