

WIND VANE

ORNYTION 207



ORDER - N°	ELECTRICAL OUTPUT	ELECTRICAL SUPPLY	HEATING SUPPLY	MODEL IN EOL MANAGER
Ornytion 207	Pot: 10 kΩ	6.5...20 VDC	-	ORNYTION 207

APPLICATION

The 207 Wind Vane Sensor is a wind direction sensor. It is equipped with a potentiometer that supplies an output electrical voltage proportional to wind direction. This voltage is a fraction of the supply voltage.

- /// Wind turbine control
- /// Wind resource assessment
- /// Engineering and meteorological studies

CONSTRUCTION AND MODE OF OPERATION

The body of the 207 Wind Vane Sensor is made from anodised aluminium. The moving parts are made from stainless steel and anodised aluminium.

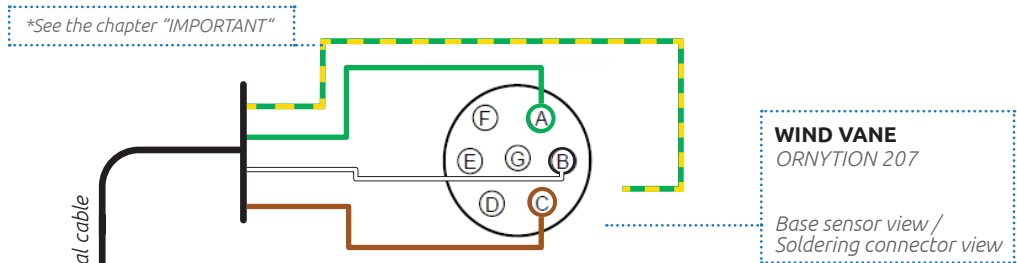
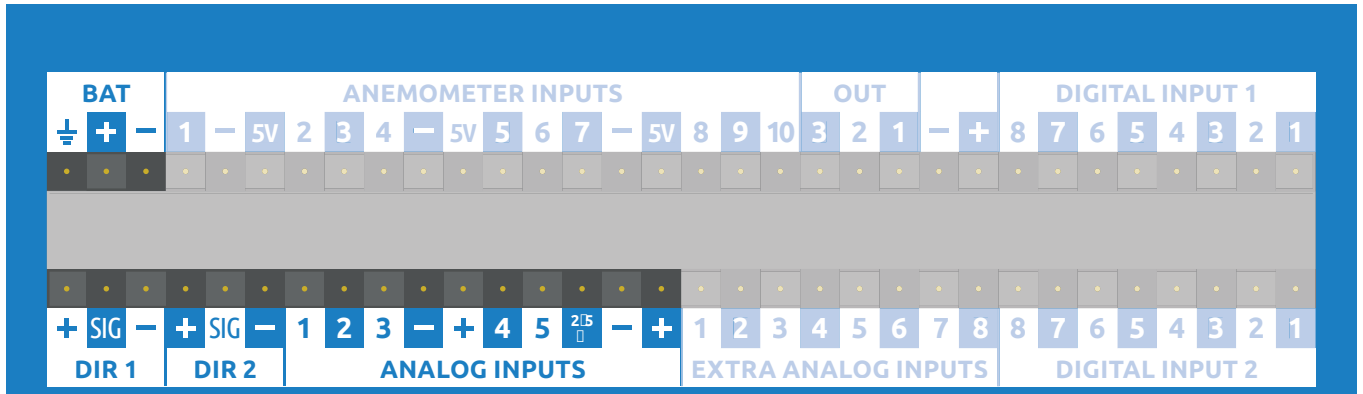
The 207 Wind Vane Sensor includes a quick locking connector for bracket fixing. It is supplied with the connector basis and optionally with fanned cable. Ornytion brackets are designed under the IEA recommendations. Accessories are also available for assembly.

TECHNICAL DATA

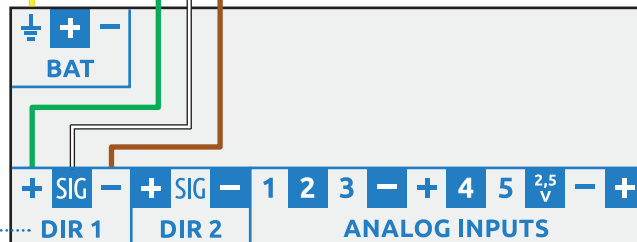
CHARACTERISTIC	DESCRIPTION / VALUE
Wind speed	<60 m/s
Temperature range	-25...+60 °C
Supply voltage	< 6.3V peak
Measurement angle	0...360 °
Output signal	Fraction of the supply voltage
Sensor resistance	10 k Ω \pm 20%
Resolution	Infinite
Linearty	\pm 1%
Measurement electric angle	355 \pm 1°
Weight	0.25 kg
Height	265 mm
Case diameter	39.5 mm
Turn range	170 mm

INSTRUCTIONS

Use the following input channels on the logger to connect this sensor. See highlighted input channels marked here below. The wire colors used in the connection diagram below only applies in case the cable is supplied by Kintech Engineering. For additional wiring & shielding information see the chapter "IMPORTANT" at the end of this dataheet.



DATA LOGGER
EOL Zenith



SENSOR PIN DESCRIPTION		DATA LOGGER INPUT CHANNEL	
	A	Us (+)	DIR 1 (+)
	B	SIG	DIR 1 (SIG)
	C	GND	DIR 1 (-)
	D	Do not connect!	
	E	Do not connect!	
	F	Do not connect!	
	G	Do not connect!	
	Shield		BAT GND

KINTECH COLOR CODES	
	Green
	White
	Brown
	Yellow - Green

HOW TO CONFIGURE THIS SENSOR IN EOL MANAGER

Open EOL Manager and go to the data logger you are working on. Open the “inputs” tab and select the following type and model:

- **Section:** Wind Vanes
- **Type:** Windvane
- **Model:** ORNYTION 207

Offset value: Tick the “Std Cal” if the north marking on the wind vane is aligned exactly towards North (in this case the offset is zero (0)). Otherwise the angle (in degrees) must be typed in the offset.

Wind Vanes

Ignore	Channel	Type	Model	Units	Serial Number	Height	Boom	Username	Std Cal	Slope	Offset	Std Dev	Max	Min
<input type="checkbox"/>	D1	Windvane	ORNYTION 207			0	0	WD1_0_0_ORN...	<input checked="" type="checkbox"/>	1,000000	0,000000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	D2	Windvane	-----			0	0	Windvane2	<input type="checkbox"/>	1,000000	0,000000	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SENSOR SELECTION

MODEL SELECTION

DATASHEET DOWNLOAD

STANDARD CALIBRATION

IMPORTANT

- After configuring the sensor in EOL Manager make sure to upload the configuration file to your EOL Zenith data logger. See the “Quick User Guide” how to upload configuration files to the data logger.
- All sensor wire shields must be connected to the data logger GND terminal.
- The data logger should always be connected to a separated ground rod. **Not** to the lightning rod of the tower.
- There are two exclusive inputs in the logger for the wind vanes (DIR1 & DIR2). Connecting the 3rd – 7th wind vane use “ANALOG INPUTS” of the logger.
- Wind vanes connected to the “ANALOG INPUTS” of the logger must be connected to exclusive (+) and (-) terminals. The terminals (+) and (-) can consequently **not** be shared between wind vanes.
- Wind vanes **cannot** be connected to the “EXTRA ANALOG” channels of the logger.
- To store data such as Std Dev, Max and Min you should tick the corresponding boxes next to each anemometer channel when setting up your site file. Otherwise these parameters will not be stored.
- Cable recommendation (up to 100 m cable):

Sensor no heating	Signal cable 3x0.5 mm ²
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