APRS World, LLC
Wind Data Logger

The **Wind Data Logger** is designed to provide an affordable and easy-to-use solution for wind site evaluation and wind generator performance. It easily supports both simple and complex monitoring applications. The Wind Data Logger records wind speed, gust, and direction, as well as the time and date, temperature, battery voltage, and other important wind parameters. The data logger is capable of recording wind speed from up to three anemometers, making it ideal for more complex studies involving multiple wind speed instruments and other sensors.

The Wind Data Logger records directly to a Secure Digital (SD™) card to provide convenient data downloads. The included SD™ card will store many years of data. The default logging interval for recording data to the memory card is 60 seconds, which is suitable for most applications; however the logging interval can range from 10 to 60,000 seconds. For your convenience, a new file is created and saved to the card for each day the logger is in use.

Using the recorded data is simple. The SD™ card is inserted into a card reader attached to the USB port on your computer (Windows, Macintosh, and Linux) and will then show up as a drive. To view and graph the data, click on the spreadsheet corresponding to the day of interest. Microsoft Excel, OpenOffice.org, or practically any spreadsheet program can be used to view, graph, and analyze your wind data.

Logs Wind Sensors, Weather Sensors, Analog Inputs, and System Parameters

- **Three anemometers** (wind speed, gust, pulse count)
  Pre-calibrated for wind sensors from APRS World, NRG Systems, and Davis Instruments
- **Wind vane** (wind direction)
- **Thermometer** (temperature)
- **Four 0-5 VDC analog voltage inputs**
- **Real time clock**
- **Input DC voltage**

- Many optional sensors are available, including:
  - **voltage**
  - **current**
  - **temperature**
  - **relative humidity**
  - **rain fall**
  - **light intensity**
  - **kWh**
  - *and many more*

Wind Data Logger	
Part Number:	**APRS6000**
Shipping Weight:	**0.29 kg / .65 lb**
RoHS:	**compliant**

APRS
WORLD, LLC

MADE IN USA

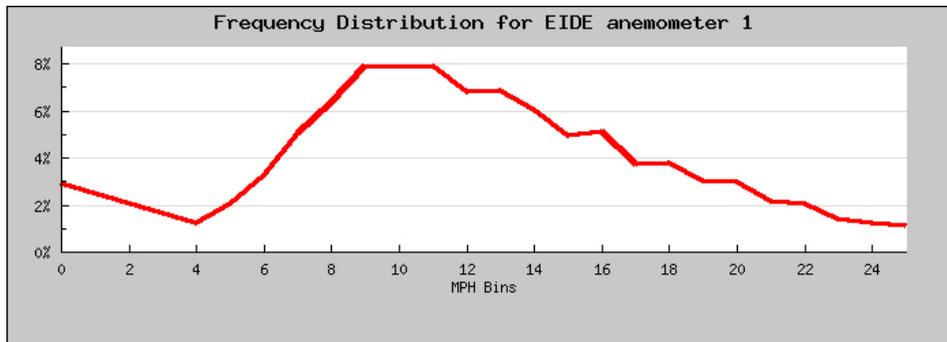**Winona, Minnesota** | **+1-507-454-2727** | **info@aprsworld.com**

- **Adjustable logging interval** – The logging interval is adjustable from 10 to 50,000 seconds (16.6 hours) in one-second increments. For most applications, a 60 second interval is ideal.

- **Display** – A 16-character x 2 line backlit LCD screen displays current information and is used for configuring the data logger. A simple menu-driven interface using the LCD and three front panel buttons makes setup easy. A bright backlight makes the data logger easy to read at night.

- **Power Source** – The Wind Data Logger operates directly from any DC voltage source between 7 and 32 volts. Power consumption is approximately 15–20mA, which allows the Wind Data Logger to be powered from a wall outlet, alkaline batteries, or solar power systems. APRS World, LLC can supply a variety of power options including an AC wall adapter or solar and AC powered self-contained systems.

- **Clock** – An accurate real-time clock is used to time-stamp each measurement. The clock is battery backed and is accurate to within 10 minutes per year.

- **Installation** – The Wind Data Logger mounts directly to a double gang (double) electrical box for clean installation in a wall or an electrical panel.

- **Communications** – An RS-232 serial port is a feature of every Wind Data Logger. This port allows communication with computers and other communication equipment. APRS World has free PC software that can display and log data directly to your computer or our Internet site. Short range wireless links are available.

Sample wind speed frequency distribution from data collected by the Wind Data Logger

The samples below show how the data will look in raw form and when opened in Microsoft Excel. The data is from a Wind Data Logger with one anemometer, a wind vane, and a temperature sensor.

Data Sample 1. *Raw Data from a Wind Data Logger*

Date & Time	Anemometer 1	Anemometer 2	Anemometer 3	Wind Direction	Wind Vane Voltage	Data from Other Sensors
2010-05-31 00:57:36,	4.6,19.1,492,	0.0,0.0,0,	0.0,0.0,0,	26433.00,0.00,0.00	24	12.89,	0.34,0.00,	20.7,	4.998,4.998,4.998,4.998	92

Speed Gust Pulse Count | Daily Counters | Input Voltage | Temperature

Data Sample 2. *Data opened in Microsoft Excel*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
		Anemometer 1			**Anemometer 2**			**Anemometer 3**			**Wind Direction**			**Wind Vane Voltage**					**Data from Other Sensors**				
1	5/31/2010 0:57	4.6	19.1	492	0	0	0	0	0	0	26433	0	0	24	12.89	0.34	0	20.7	4.998	4.998	4.998	4.998	92

Speed Gust Pulse Count | Daily Counters | Input Voltage | Temperature

* The format for Date & Time will vary based on your local spreadsheet settings.

The **Wind Data Logger Module** is also available in many configurations, including self-contained packages in both AC and Solar powered versions. To learn more about packages and accessories, please visit:

www.aprsworld.com/wind2/