

Weather Data Station for Solar Energy Systems



Key Features

- A complete kit for your environmental data monitoring needs
- Access data, anywhere, anytime through a web browser
- Available with the following high-quality sensors:
 - Irradiation Sensor
 - Ambient Temperature
 - Panel Temperature
 - Wind Speed Sensor
 - Wind Direction
 - Reference Cell with Temperature
- Real-time data at 15-minute intervals
- Performance alarming
- 5-year monitoring and hosting service at MYPVDATA.com included
- Flexible network/field bus configuration with Modbus protocol
- Does not include mounting hardware

Cost-effective Solutions

RECtrak™ Weather Data Station offers state-of-the-art technology for continuous logging, storing and retrieving of weather information. It features an enclosed, weatherproof package and all sensors are marine grade.

The RECtrak™ WD kit comes in two basic configurations: the Internet Gateway and Data Logger, or as an add-on to a monitoring system that already has the Logger. Additional sensors, such as wind direction, humidity and barometric pressure, can be purchased separately and connected to the station for a total maximum of eight sensors.

The Internet Gateway and Data Logger collects data and uploads it regularly to the Energy Recommerce Information Server. Users log into their account on MYPVDATA® to access information and manage their system online. The server provides access to real-time and historical data, alarming, rate analysis, logbooks, billing and more.

Simplified System Design

The monitoring kit features a straightforward system design. While supporting application examples and CAD schematics to help reduce engineering costs.

Future-Proof Solutions

Use of standard open solutions gives the RECtrak monitoring system the flexibility to grow and evolve, and facilitates integration with other systems.

Easy to Install and Manage

- Designed to facilitate quick installation.
- Remote configuration capabilities minimize truck rolls.
- A fully integrated and tested monitoring kit that minimizes errors.



Application

The REctrak™ WD Weather Data monitoring kit comes standard with one REctrak Internet Gateway and Data Logger plus the following sensors:

- Temperature Sensor
- Wind Speed Sensor
- Irradiation Sensor
- Temperature Sensor Solar Shield

Also included is 5-year monitoring and hosting service on MYPVDATA.com. Additional sensors or other devices can be connected. The gateway collects data and uploads them regularly, over the Internet, to the Energy Recommerce Information Server.



Order Information

REC231	Comm. interface + ambient temp + panel temp + irradiation + windspeed
REC232	Comm. interface + ambient temp + irradiation + windspeed

Other configurations available. Contact us for a quote and specifications.

REctrak Weather Data Station

Field bus	Modbus
Internet/LAN	Ethernet 10baseT-- RJ45 TCP/IP, HTTP, FTP, XML
Local Logging	30days @ 15-min. interval
Power Supply Voltage	120 VAC (60Hz)

Temperature Sensors

The temperature sensor is a high quality, rugged instrument, precision RTD calibrated to US National Standards.

Range	-50°C to +50°C
Accuracy	±0.2°F or ±0.1°C
Operating Temp	-50° to +100°C
Size	3/4" diameter x 4 1/2"
Weight	1/2 lb.

The Weather Data Station is complete with a NEMA 3 enclosure and power supply. All sensors provides a 4-20mA output using a 2-wire, 25ft marine grade cable. Operating Voltage: 10-36 VDC

Wind Speed Sensor

3 cup wind speed sensor constructed of high-impact materials, ensuring its durability and ruggedness even in severe weather conditions. The sensor indicator has a very low threshold, and it responds accurately to subtle changes in wind speed.

Range	0 to 50 m/s (110 mph)
Threshold	<.5 m/s (1.11 mph)
Accuracy	0.2 mph over range 11-55 mph
Operating Temp.	-40° to +55°C
Size	7" diameter x 8 1/2"
Weight	1lb.

Irradiation Sensor

Precision pyranometer includes a bubble level, leveling screws and mounting hardware for quality installation. The sensor uses a high stability silicon photovoltaic detector (blue enhanced) to obtain accurate readings.

Range	0 to 1500W/m2
Spectral Response	400 to 1100 nm
Accuracy	1% of full scale
Operating Temp.	-40° to +55°C
Size	3" diameter x 1 1/2"
Weight	1/4 lb.

Visit www.solarmagic.com and click Partner Portal for design support and more information.