



All-In-One Environmental Monitoring Appliance

An integrated system that is available in two configurations, easy to install, and simple to configure for any plant environment

High-Performance Architecture

Field-tested, scalable and secure architecture enables reliable real-time revenue-grade energy monitoring and management.

Adaptable Architecture

Modular design enables support for a wide range of applications from residential use to utility environments.

Environmental Data Measurement Appliances for Solar Power Plants

Continuous measurement of key performance indicators such as solar irradiance, ambient temperature, and back-of-module temperature is fundamental to delivering accurate Solar Performance Management. Performance modeling, fault detection, and maintenance scheduling are a few of the applications enabled by the critical information provided by environmental monitoring systems.

The Aurora Environmental Appliance is an all-in-one solution that accurately measures solar irradiance, ambient temperature, and back-of-module temperature on a continuous basis. Aurora Environmental records data locally, stores it for as long as necessary, and transfers it to an information repository where it can then be utilized in Web-based applications such as Aurora Vision™ or Fat Spaniel Prime Edition™.

Aurora Environmental connects directly to the customer-premises Local Area Network, via Ethernet and TCP/IP, and transfers data approximately once per minute. To protect against data loss in the event of network outages, Aurora Environmental can store up to 12 months of data samples with one-hour granularity). Most importantly, with its modular design, Aurora Environmental can typically be installed in less than an hour.



Technical Specifications for Aurora Environmental Basic and Commercial Configurations

Characteristic	Aurora Environmental Basic Configuration	Aurora Environmental Commercial Configuration
Ambient Temperature	Range -66°F to +166°F Accuracy 0.5°F	Range -66°F to +166°F Accuracy 0.5°F
PV Panel Temperature	1 sensor -22°F to +194°F Accuracy: +/- 1.0°F	2 sensors -22°F to +194°F Accuracy: +/- 1.0°F
Relative Humidity	N/A	Range 0% to 100% Accuracy 2% temp. compensated
Barometric Pressure	N/A	Range 16.30 to 32.00 in. Hg Accuracy 0.050 in. Hg
Rain Gauge	N/A	8.00 in. dia. Collector Resolution .01 in.
Solar Radiation	1 Apogee sensor	1 or 2 Apogee sensors (option)
Vane	N/A	Vane Range 360 degrees Threshold 1.5 MPH
Wind Speed	N/A	Range 0 to 150 Mph. Threshold 1.5MPH
Radio Transmission	Range 1.0Mi. LOS Ethernet or ModBus Samples every 2 seconds	Range 1.0Mi. LOS Ethernet or ModBus Samples every 2 seconds
Operating Temperature	-40°C to +60°C 0-90% humidity (non-condensing)	-40°C to +60°C 0-90% humidity (non-condensing)
Memory / Data Storage	12 months at 1 hr. intervals	50 months at 1 hr. intervals
Battery Backup	Solar charged 25 days w/o sunlight	Solar charged 25 days w/o sunlight
External Display	N/A	Optional
Dew Point (computed)	Range: -40° to +140° F. Accuracy: ± 2° F, ±1.0° C.	Range: -40° to +140° F. Accuracy: ± 2° F, ±1.0° C.
Wind Chill (computed)	Range: to -127° F; to -88° C. Accuracy: ± 2° F, ±1.0° C.	Range: to -127° F; to -88° C. Accuracy: ± 2° F, ±1.0° C.
Temperature / Heat Index (computed)	Range: To 160° F, 71°C. Accuracy: ± 2.0°, ±1.0° C.	Range: To 160° F, 71°C. Accuracy: ± 2.0°, ±1.0° C.
OPP Sun Spec Compliant	Yes	Yes
Mounting	Pole or Tripod	Pole or Tripod

For More Information

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