

Ambient Air Monitoring

Meteorological Station for Regulatory Modeling Applications

Measurements

- | | |
|---------------------|--|
| • Wind speed | • Relative humidity |
| • Wind direction | • Barometric pressure |
| • Delta temperature | • Solar radiation—sun plus sky radiation |
| • Air temperature | |

Overview

Rugged, dc-power weather station provides regulatory-required meteorological measurements with the flexibility to be adapted to a wide arena of ambient air monitoring applications.

This is a permanent weather station that provides the required regulatory ambient air measurements, and can calculate many other

weather parameters such as heat index, wind chill, dew point, and more. The expandability of this system allows the flexibility to add sensors, control devices, and telecommunication options to enhance existing projects or be altered to meet the needs of a new project.

Benefits and Features

- › Contains a Campbell Scientific CR3000 Measurement and Control Datalogger
- › Industry-proven, high-accuracy sensors
- › Provides a modular, programmable, and customizable system
- › Provides a battery backed system that allows data collection during power outages and network failure
- › Complies with Modbus and PakBus protocols
- › Supports nearly all communication technologies such as RS-485, fiber, TCP/IP, cellular, or satellite

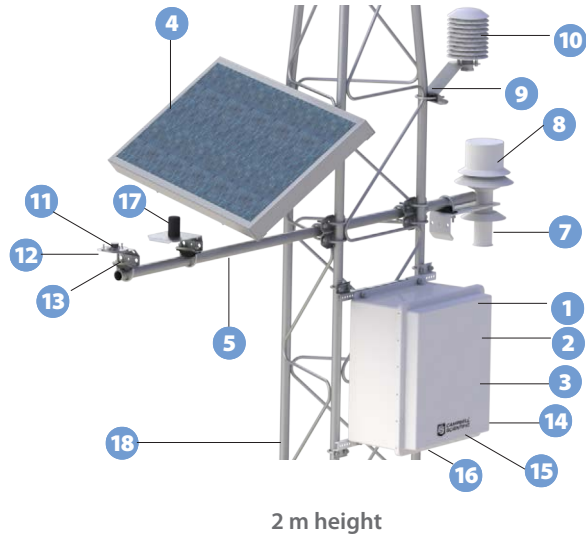
More info: 435.227.9080

campbellsci.com/air-quality



Components

- 1 CR3000 Measurement and Control Datalogger
- 2 BP84 84 A h Battery Pack
- 3 CH200 Smart Charge Controller
- 4 SP90 90 W Solar Panel
- 5 CM204 1.2 m (4 ft.) Crossarm (2 m & 10 m heights)
- 6 05305-L Wind Monitor AQ
- 7 43347-L RTD Temperature Probe (2 m & 10 m heights)
- 8 43502-L Aspirated Radiation Shield (2 m & 10 m heights)
- 9 HC2S3-L Temperature and Relative Humidity Probe
- 10 41003-5 10-Plate Radiation Shield
- 11 CS300-L Pyranometer
- 12 18356 Leveling Base for CS300 Pyranometer
- 13 CM225 Pyranometer Mount
- 14 CS106 Barometric Pressure Sensor
- 15 RavenXTV Cellular Digital Modem for Verizon
- 16 ENC16/18 16 x 18 inch Environmental Enclosure (with L-shaped back plate)
- 17 Cellular Modem Antenna
- 18 UT30 10 m (30 ft) Tower



Customizations

The AQMS weather station is completely customizable, allowing you to configure the station to your projects specifications, while retaining turn-key functionality. The following outlines a few of the changes that can be made and other components that are available:

Sensors

Sensors can be removed, added, or swapped out with models that meet your project's requirements.

- WindSonic Wind Sensor
- CS100 Barometric Pressure Sensor
- CMP3 Pyranometer

Communications

Communication options include Ethernet, cellular, fiber, RS-485, satellite, and telephone.

- RavenXT Cellular Modem
- NL201 Network Link Interface
- NL121 Network Link Interface

Power

The station can be powered by AC and/or DC power sources. Solar panels can provide a charging source. Batteries are sized according to power drain and location. Additional power supplies may be needed for aspirated shields.

- SP50 50W Solar Panel
- 18529 Morning Star SunSaver-10 10A 12V Regulator

Relay Controller

A device that controls DC devices can be added to the station.

- SDM-CD85 8-Channel Solid-State dc Controller

Mounting

We offer a variety of tower and tripod sizes. Several sensor mounting options are available to change the default mounting configuration.

- UT10/20/30 10/20/30 ft instrumentation tower for permanent installations
- CM115/CM120 15/20 ft Stainless-Steel Instrument Tripod
- CM206 6-ft crossarm with mounting bracket

