

WMO-Compliant Automated Weather Station (AWS) with Full Climate Suite of Instruments



WMO-Compliant AWS

With full climate suite of instruments

Overview

The ClimaPRO™ is a feature-rich, comprehensive solution for weather networks to meet World Meteorological Organization (WMO) compliance standards and deliver high-quality data to a diverse set of stakeholders, including through the WMO Information System 2.0 (WIS 2.0).

Campbell Scientific's complete automated weather station (AWS) offers a comprehensive range of environmental measurements and is designed for National Meteorological and Hydrological Service (NMHS) organizations seeking WMO compliance for measurement parameters such as solar radiation, soil moisture, and temperature that extend beyond Global Basic Observing Networks (GBON) minimum requirements.

This system implements field-proven sensors, which provide accurate measurements required for the data products that NMHS stakeholders need. The sensors selected are an optimal balance between accuracy, durability, and performance to

obtain the best data while reducing maintenance and operational overhead.

Campbell Scientific solutions empower NMHS organizations to make informed, data-driven decisions and take decisive action in the face of increasingly frequent extreme weather events. Measured meteorological variables can also be used to calculate many weather-related parameters, including evapotranspiration, growing-degree days, wind chill, and dew point.

The ClimaPRO station can be ordered with the components shown or as a complete prewired, preprogrammed, and preconfigured system. In addition, it is fully customizable and upgradeable. To meet the needs of a specific application, you can easily add sensors, measurement peripherals, and communications devices. Contact a Campbell Scientific sales engineer to design a custom solution.

Benefits and Features

- Flexible and innovative solutions with a customized "fit-forpurpose" design for specific application needs
- GBON ready with WIS 2.0 to meet the WMO Unified Data Policy
- Defensible data obtainable with high-accuracy instruments
- Field-tested, reliable equipment for durability in extreme environments
- ▶ Remote system deployment and low-power system design for long-term monitoring
- Durable and modular system components for reduced maintenance overhead and capacity building
- Upgradeable for adaptation to diverse or changing measurement needs



- Remote connection with 4G LTE cellular network, as well as many other supported communications options, including two-way satellite internet
- Barometric pressure measurements using Druck DPS8100 and solar radiation measurements using Hukseflux SR15

Detailed Description

Each Campbell Scientific PRO-series AWS consists of a robust hardware platform used as a permanent installation for NMHS organizations and mesonets serving a diverse set of stakeholders.

Campbell Scientific AWS solutions feature a simple, open platform that is long-lasting and durable, designed to help organizations alleviate operational challenges such as inadequate capacity building, limited budgets, and environmental complications.

Systems and sensors are vetted by weather networks globally and return high-quality data suitable for numerical weather prediction, early warning systems, and climate science.

- The ClimaPRO solution is Campbell Scientific's WMOcompliant AWS that offers a comprehensive range of environmental measurements most commonly used in WMO-compliant weather station and climate applications.
- The MeteoPRO solution is Campbell Scientific's WMOcompliant AWS that includes a select range of environmental measurements required under GBON specifications.

Campbell Scientific systems represent a tremendous lifetime value proposition as a sensor-agnostic, future-proof, and openplatform solution—ideal for both modernizing legacy AWS networks and implementing new stations.

Specifications for individual instruments on the stations can be viewed on the product page for each component. If you have any questions about selecting a system, feel free to ask an expert by clicking the Ask a Question button.

