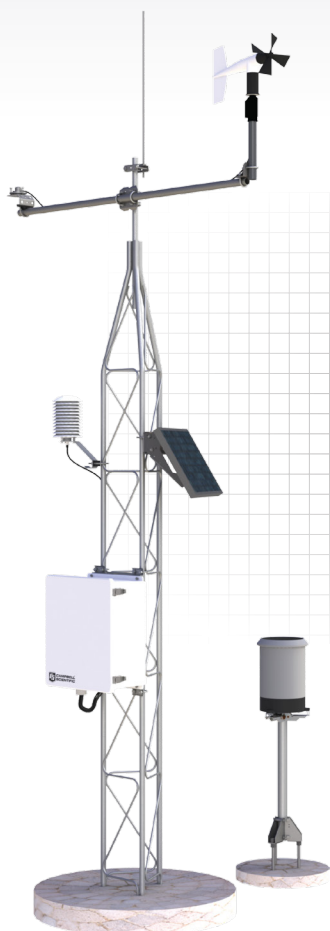# CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

Utility-Met100
Utility-Grade Weather Station for SCADA Operations

Robust, Reliable

Weather Station for Utilities and SCADA Operations

Common Measurements

- Air Temperature
- Relative Humidity
- Wind Speed
- Wind Direction
- Precipitation
- Barometric Pressure
- Solar Radiation

Overview

The Utility-Met100 is a utility-grade SCADA weather station specifically designed for the utility market and SCADA operations that rely on DNP3 and/or Modbus protocols. The Utility-Met100 provides weather station measurements in a configurable, turn-key package designed with fast to field features that simplify installation and commissioning.

This system supports any sensor and communication configuration. It can also be configured to meet EPA Permitting Guidance Standards for the Prevention of Significant Deterioration. Built-in security features keep the Utility-Met station and its data safe and secure.

Benefits and Features

- ❯ Contains a Campbell Scientific CR1000 Measurement and Control Datalogger
- ❯ Approved California ISO Remote Intelligent Gateway (RIG) for secure encrypted information transmission
- ❯ Provides a modular, programmable, and customizable system
- ❯ Provides a battery back system that allows data collection during power outages and network failure

- ❯ Factory fabrication, programming, and testing minimizes field wiring errors, reduces deployment time, and eliminates datalogger programming
- ❯ Supports nearly all communication technologies such as RS-485, fiber, TCP/IP, cellular, satellite, or radio
- ❯ Complies with Modbus, CANBus, PakBus, and DNP3 protocols
- ❯ Built-in web based graphical display

Default Components

1 CR1000 Measurement and Control Datalogger

2 NL116 Network Link Interface

3 05103 Wind Speed and Wind Direction Wind Monitor

4 SP20 20 W Solar Panel

5 LI200RX Silicon Pyranometer

6 CS100 Barometric Pressure Sensor

7 HC2S3 Temperature and Relative Humidity Sensor

8 PWENC16/18 Prewired Enclosure, 16 by 18 inches

9 CH200 Smart Charge Controller

10 BP12 12 Ahr Battery Pack

11 UT10 10-ft Tower

12 CM204 4-ft Crossarm with Bracket

13 TB4 Tipping Bucket Rain Gage
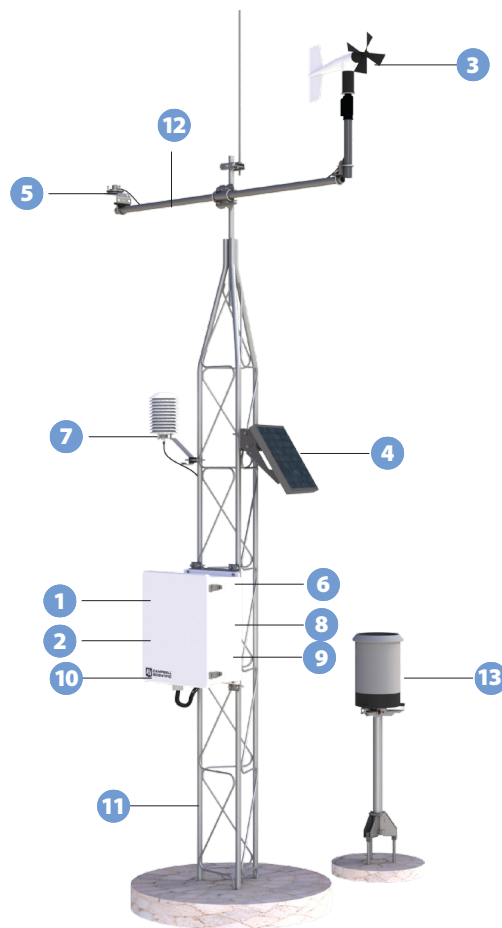
Customizations

The Utility-Met100 is completely customizable, allowing you to config-ure the station to your project's specifications, while retaining turn-key functionality. The following outlines a few of the changes that can be made and other components and measurements that are available.

Sensors

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

❯ CMP11 Secondary Standard Pyranometers

❯ 110PV Back of Solar Module Surface Mount Thermistor

❯ HMP60 Temperature and Relative Humidity Probe

❯ 034B Wind Speed and Wind Direction Wind Set

❯ TE525 Rain Gage

Communications

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

❯ RavenXT Cellular Modem

❯ NL201 Network Link Interface

Power

The station can be powered by ac and/or dc power sources such as 24 Vdc from an inverter. Solar panels can provide a charging source. Batteries are sized according to demand and location.

❯ SP90 90 W Solar Panel

❯ 26963 AC/DC 24 VDC Power Adapter

❯ UL508A Option

Mounting

We offer a variety of tower sizes and instrument tripods for perma-nent or quick-deploy applications. Several sensor mounting options are available to change the default mounting configuration.

❯ UT10/20/30 10/20/30 ft Instrumentation Towers For Perma-nent Installations

❯ CM110 10-ft Stainless-Steel Instrument Tripod

❯ CM106 7-to-10 ft Galvanized-Steel-Tubing Tripod

Measurements

Several parameters are easily integrated.

❯ DC Current and Voltage

❯ Visibility

❯ Present Weather

❯ Electric Field and Lightning Warning

❯ Cloud Height

❯ Surface Moisture

Software

Many installations integrate the weather station data into an exist-ing SCADA network using DNP3, Modbus, or other market specific protocol application. As an alternative, Campbell Scientific offers a software package LoggerNet, which is a complementary suite of client applications for datalogger programming, data collection, network monitoring and troubleshooting, and data display.