

WEATHER MASTER ULTRA

A compact, robust and accurate weather station designed and built in Australia.

Features

- Compact, robust and accurate
- Easy to install, easy to use
- Mast or tripod mounting options
- Remote access to your data
- Built-in 7-channel data logger
- Ideal for micro-climate monitoring

The WeatherMaster Ultra is designed to survive in Australia's climate extremes, providing reliable and accurate data logging. Swap out sensors and rugged design make field calibration and servicing simple!

5 Primary Weather Sensors as Standard

- Wind Speed
- Wind Direction
- Tipping Bucket Rain Gauge
- Air Temperature
- Relative Humidity
- 2 Spare Sensor Channels



WEATHER MASTER ULTRA SPECIFICATIONS

Wind Speed

- Range: 0 to 60m/s
- Resolution: 0.1m/s
- Accuracy: +/- 3%
- Starting Threshold: 0.35m/s

Wind Direction

- Active Range: 0 – 359 degrees (No Gap)
- Resolution: 1 degree
- Accuracy: +/- 2 degrees

Rainfall

- 550mm/hr continuous operation
- Resolution: 0.2mm
- Accuracy: +/- 3% up to 300mm/hr rate
- Hall Effect Sensor
- Tipping Bucket with Brass Syphon
- Gold plated bucket
- Precision balanced

Air Temperature

- Range: -20.0°C to +60.0°C
- Resolution: 0.1°C
- Accuracy: $\pm 0.2^\circ\text{C}$

Relative Humidity

- Range: 0–100%
- Resolution: $\pm 0.1\%$ RH
- Accuracy: $\pm 3\%$ RH

System Diagnostics

- System Running: external LED indicator
- Internal data and memory: internal data indicator
- Battery and charge voltage: internal data indicator
- Load and charge current: internal data indicator
- Sensor function: internal data indicator

Flexible Data Scheduling

In separate memories the data logger will continuously save 10-minute, hourly and daily weather data records. These records can be easily customised to suit your required schedule. The Ultra's rolling-drum memory typically stores 12 months of 10-minute, hourly and daily summaries concurrently.



Calculations

Optional data logger calculations:

- FAO56 Reference Evapotranspiration – Eto
 - » Requires solar radiation sensor
- Sigma Theta & Vector Wind data
- Thermal Work Limit - TWL & WBGT
 - » Requires black globe temperature sensor
- HLI, and AHLU
 - » Requires black globe temperature sensor

Battery and Solar Panel

- Capacity for 7 days of operation without sunlight on a typical system.
- Internal Battery: 12V 10Ah Lithium Gel Cell

Power Consumption

- 30mA in logging mode (standard sensors)
- 45mA when communicating

Sensor Options

Additional sensors are available.

Add maximum of two additional sensors.

- Solar Radiation
- Barometric Pressure
- Black Globe Temperature
- Soil Temperature
- Soil Moisture