



METER



ATMOS 51

VBR Actual ET

DON'T ESTIMATE ET. MEASURE IT.

Knowing exactly how much water a canopy loses during the day is vital to many applications. From irrigation planning to quantifying hydrological changes over time to modeling an ecosystem's energy balance, direct measurements of evapotranspiration can give you the information you need to make the right decisions at the right time.

The ATMOS 51 VBR Actual ET Sensor takes your data beyond reference evapotranspiration values, using a variance Bowen ratio technique to simplify water and energy balance measurements in the field. Now, you can use actual ET data to accurately measure plant water use throughout the day, identify water limitations, and detect plant stress signals earlier.

FEATURES

- Actual ET measurements direct from your project site
- High frequency temperature, specific humidity, and solar radiation capture real-time fluxes
- Plug-and-play compatibility with ZL6 data loggers and ZENTRA Cloud
- Easy installation with the built-in leveling bracket
- Reduced maintenance needs due to the UV-resistant plastic housing

SPECS

Solar Radiation	Range: 0–1750 W/m ² Resolution: 1 W/m ² Accuracy: ±5% of measurement typical
Relative Humidity (RH)	Range: 0–100% RH (0.00–1.00) Resolution: ±0.01% RH Accuracy: ±1% RH, typical Long-term drift: ±0.25% of RH/year, typical
Humidity Sensor Temperature	Range: –40 to 60 °C Resolution: 0.01 °C Accuracy: ±0.1 °C
Barometric Pressure	Range: 26–126 kPa Resolution: 0.01 kPa Accuracy: ±0.003 kPa at 25 °C Equilibration: < 10 ms Long-term drift: < 0.03 kPa/year, typical
Tilt	Range: 0°–180° Resolution: 0.1° Accuracy: ±1°
Output	SDI-12 communication
Data Logger Compatibility	METER ZL6 and EM60 data loggers or any data acquisition systems capable of 3.6- to 15.0-VDC excitation and SDI-12 communication
Dimensions	Diameter: 14 cm (5.5 in) Height: 19 cm (7.5 in)
Operating Temperature Range	Minimum: –40 °C Typical: NA Maximum: 60 °C Note: Barometric pressure and relative humidity sensors operate accurately at a minimum temperature of –40 °C
Cable Length	5 m (standard) 1.5 m (5-pin and 8-pin M12) 75 m (maximum custom cable length for additional cost) Note: Contact customer support if a nonstandard cable length is needed
Connector Types	3.5 mm stereo plug or 3 stripped and tinned wires
Conductor Gauge	22-AWG / 24-AWG drain wire
Cable Diameter	0.165±0.004 in (4.20±0.10 mm), with minimum jacket of 0.030 in (0.76 mm)

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