

## AGROMET-MB MODBUS WEATHER STATION

With the AgroMET-MB, RainWise combines the robust performance and simple integration of its MK-III line of wireless meteorological sensor assemblies with Modbus capabilities for a powerful yet flexible new offering.

Systems ship fully assembled and calibrated in a wide range of sensor and power configurations. Agricultural applications include microclimate monitoring, irrigation scheduling, pest/disease forecasts, and crop management among others.

### FEATURES

- Extensive sensor options
- Modbus RTU protocol
- RS-485 serial output
- Compact, robust hardware
- Proprietary sensor design
- Low maintenance
- Field serviceable
- Factory assembled & calibrated
- 40-year manufacturing track record
- OEM customization available



### STANDARD SENSORS

Temperature  
Relative Humidity  
Barometric Pressure  
Wind Speed  
Wind Direction (basic or precision)

### OPTIONAL SENSORS

Rainfall  
Solar Radiation  
Leaf Wetness  
Temperature 2 (soil/canopy/water)  
Soil Tension

*Available as standalone solar-powered or 12-24V line-powered system*

*NOTE: solar-powered unit's battery life will be affected by poll rates*

## Specifications

## AgroMET-MB

**Power Specification:** 6V 5AH AGM Sealed Lead Acid, 0.6W Solar Panel or 12-24V DC

**Operating Environment:**

Temperature: -40 ~ 60°C  
Humidity: 0 ~ 100% Condensing

**Ambient Air Temperature:**

Range: 60°C  
Accuracy:  $\pm 0.2^\circ\text{C}$  at 25°C  
Resolution: 0.1°C

**Relative Humidity:**

Range: 0 ~ 100%  
Accuracy:  $\pm 2\%$  for  $10 \leq \%RH \leq 90$  at 25°C  
Resolution: 1%  
Long Term Drift: <0.5%/Yr

**Barometric Pressure:**

Range: 300 ~ 1100 mbar  
Accuracy:  $\pm 0.5$  mbar between 700-1100 mbar at 25°C  
Resolution: 1 mbar  
Long Term Drift: -1 mbar/Yr

**Liquid Precipitation:**

Range: 0 ~ 762 mm/hr  
Accuracy:  $\pm 2\%$  at 25.4 mm./hr x 3  
Resolution: 0.254 mm.

**Wind Direction:**

	<b>Basic</b>	<b>Precision</b>
Range:	0 ~ 360°	0 ~ 360°
Accuracy:	$\pm 11.25^\circ$	$\pm 3^\circ$
Resolution:	22.5°	1°

**Wind Speed:**

Range: 0 ~ 67 m/s  
Accuracy: Greater of 0.45m/sec. or 5% of Reading  
Resolution: 1 m/s  
Threshold: 0.45 m/s at a 10° Deflection

**Solar Radiation (Apogee):**

Operational Temperature: -25 ~ 55°C

Range: 0 ~ 1750 W/m<sup>2</sup>  
Accuracy:  $\pm 5\%$   
Cosine Response 45°:  $\pm 1\%$   
Cosine Response 75°:  $\pm 5\%$   
Resolution: 1 W/m<sup>2</sup>

**Leaf Wetness:**

Operational Temperature: 0 ~ 70°C  
Senses: Dew and Precipitation  
Resolution: Wet or Dry

**Specifications****AgroMET-MB****Temperature 2:**

Range: -40 ~ 80°C  
Accuracy: ±0.2°C at 25°C  
Resolution: 0.1°C

**Soil Moisture (Watermark):**

Operational Temperature: 0 ~ 50°C  
Range: 0 ~ 239 cbar  
Resolution: 1 cbar

**Electronics:** Lead-free RoHS Compliant

**Physical:**

Packaged Dimensions: 91.44 cm x 50.8 cm x 33.02 cm (36" x 20" x 13")  
Packaged Weight: 9.07 kg ( 20 lbs.)

**Warranty:** 2 Years

**Communications:** Single 2-wire, half duplex RS-485  
4x holding registers contain weather data  
16-bit rainfall counter with automatic rollover or manual reset  
5-minute rolling average wind speed & direction, with gust  
Instantaneous wind speed & direction available

**Hardware, software & packaging customization available for OEM customers.**