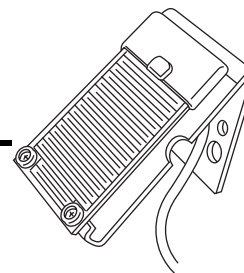


Leaf Wetness Sensor

For the Wireless Leaf & Soil Moisture/Temperature Station (6345)



6420

VANTAGE PRO2

The Leaf Wetness sensor detects the presence of surface moisture. The sensor is an artificial-leaf electrical-resistance type. It consists of a sensing grid, low-voltage bi-polar excitation circuit, and conductivity-sensing circuit. The Vantage Pro2 console measures the conductivity across the grid and displays the result as a moisture level, scaled from 0 to 15. The user may select the threshold level at and above which moisture-hour totals are accumulated.

The sensing grid is a gold-plated etched circuit on an epoxy-glass substrate; the excitation and sense circuits are encapsulated in black epoxy. The included mounting bracket holds the sensor at a 45° angle to simulate a typical leaf position and to permit runoff of excess moisture; it may be mounted on a vertical post, pipe, or stake, or on the Sensor Mounting Arm.

Specifications

General

Sensor Type	Artificial leaf electrical resistance
Excitation	Bipolar (3V nominal) built-in
Time Constant	2 seconds
Attached Cable Length	40' (12 m)
Cable Type	4-conductor, 26 AWG
Connector	Modular connector (RJ-11)
Recommended Maximum Cable Length (see Note 1)	200' (61 m) using 4-conductor 26 AWG cable
Material	
Substrate	Glass-reinforced, ceramic-filled laminate
Grid	1 oz. copper, nickel, and 50 μ inch gold plate
Mounting Bracket	White powder-coated aluminum
Dimensions	
Leaf Wetness Sensor	2" high x 1.5" wide x 0.25" thick (51 mm x 38 mm x 6 mm)
Sensor Area	4.4 in ² (28 cm ²)
Weight	11 oz. (312 g)

Data Available at Console and in WeatherLink

Resolution	1
Range	0 to 15
Dry/Wet Threshold	User-selectable
Accuracy	± 0.5
Update Interval	62.5 to 75 seconds
Current Data	Instant Reading; Daily High and Low; Monthly High
Historical Data	Hourly Readings; Daily Highs and Lows; Monthly Highs
Alarms	High and Low Thresholds from Instant Reading

Input/Output

Supply Voltage and Current	100 μ A (typical) @ 3 VDC
Output	2.5 to 3 VDC
Connections	
Yellow	3 VDC
Red	Ground
Green	Output

Notes

1. Increasing the cable length above the recommended maximum cable length causes measurement error in the form of lower leaf wetness readings.