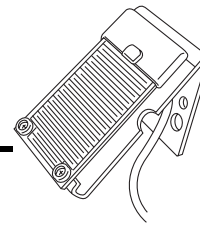


# LeafWetness Sensor

For the Wireless Leaf & Soil Moisture/Temperature Station



**6420**

**Weather Accessories**

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.

## General

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Sensor Type	Artificial leaf electrical resistance
Excitation	Bipolar (3V nominal) built-in
Time Constant	2 seconds
Attached Cable Length	40' (12 m)

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

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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 (length x width x height)	
Leaf Wetness Sensor	4.00" x 2.25" x 2.25" (102 mm x 58 mm x 58 mm)
Sensor Area	4.4 in <sup>2</sup> (28 cm <sup>2</sup> )
Weight	13 oz. (.4 kg)

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## Sensor Output

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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

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## Input/Output

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

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**Package Dimensions**

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Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6420	5.75" x 4.25" x 3.25" (146 mm x 108 mm x 83 mm)	1.8 lbs. (.8 kg)	011698 00238 2