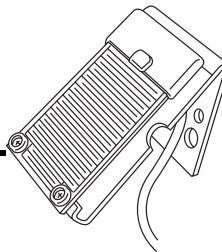


Leaf Wetness Sensor

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

6420



Vantage Pro2™ 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

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

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

| | |
|---|--|
| 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 ² (28 cm ²) |
| Weight | 13 oz. (.4 kg) |

Sensor Output

| | |
|-------------------|--------------------|
| Resolution | 1 |
| Range | 0 to 15 |
| Dry/Wet Threshold | User-selectable |
| Accuracy | ±0.5 |
| Update Interval | 62.5 to 75 seconds |

Input/Output

| | |
|----------------------------|--------------------------|
| 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

| 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) | 1.0 lbs. (.5 kg) | 011698 00238 2 |

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