

LWS

Leaf Wetness Sensor

Decagon's LWS can detect small amounts of water or ice on the sensor surface for leaf wetness applications. Because the LWS measures the dielectric constant of the sensor's upper surface, it can detect the presence of water or ice anywhere on the sensor's surface. All of our contemporary dataloggers and many of our retired dataloggers (e.g., CR10X, CR23X) are compatible with this sensor.

Features

- Imitates characteristics of a leaf
- Does not require painting or calibration of individual sensors
- Detects trace amounts of water or ice on the leaf surface
- Provides low power consumption

Installation

The LWS is designed to be deployed either in the canopy or on a weather station mast. Two holes in the non-sensing portion of the sensor body are provided for attaching the sensor to a pole or branch via twist ties or with 4-40 bolts.

Ordering Information

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LWS-L Decagon leaf wetness sensor with user-specified cable length. Enter cable length, in feet, after -L. The length must be an increment of 5 feet (e.g., 15, 20, 25, 30). Recommended cable length is 25 ft (LWS-L25). Must choose a cable termination option (see below).

Cable Termination Options (choose one)

- PT** Cable terminates in stripped and tinned leads for direct connection to a datalogger's terminals.
- PW** Cable terminates in connector for attachment to a prewired enclosure.
- CWS** Cable terminates in a connector for attachment to a CWS900-series interface. Connection to a CWS900-series interface allows this sensor to be used in a wireless sensor network.



Specifications

Measurement Time:	10 ms
Power:	2.5 Vdc @ 2 mA to 5 Vdc @ 7 mA
Output:	250 mV to 1500 mV
Operating Temperature:	-20° to 60°C
Expected Lifetime:	2+ years continuous use
Probe Dimensions:	4.4 x 2.3 x 0.0295 in. (11.2 x 5.8 x 0.075 cm)
Weight:	5 oz (0.14 kg) with 15-ft cable

