

MEA 2040 LEAF WETNESS SENSOR

DESCRIPTION. This sensor is designed to respond like an artificial leaf and replicates the effect of moisture settling on the surface as a result of either condensation or rainfall. The sensor provides a signal which varies in proportion to the degree of wetness.

HOW IT IS USED. The sensor should be installed in the canopy of the crop of interest. It should be oriented to best simulate the orientation of an actual leaf. This sensor may also be used to monitor surface moisture in a variety of non plant situations such as road surfaces and condensation in buildings.

The sensor exploits changes in the dielectric constant close to its surface as droplets of moisture form. The change in dielectric constant and hence capacitance of the unit are then converted into a change in voltage. Variations in droplet distribution and water impurities can however effect the degree of accuracy of the measurement being made.



SPECIFICATIONS

Measurement Units	Degree of wetness (0-100%)
Time and duration	above preset "wet" threshold
Temperature Range	+1°C to +50°C
Humidity Range	0% to 100%
Sensor Type	Gold coated printed circuit grid.
Power Supply	+5V DC pulsed
Current Drain	<1mA
Weight (unpacked)	60gm
Dimensions	57 x 92 x 16mm
Water Resistance	Sensor is manufactured to withstand normal meteorological conditions, but not immersion in water.
Mounting	The sensor should be oriented in a position which is typical of the foliage on the plants of interest. It should be fixed in place using the universal mounting bracket.
Cable Details	The sensor is fitted with a 300mm flying lead and is supplied with an additional 20m of 2 core cable and weather proof connectors. Longer cable lengths can be supplied on request.

RELATED PRODUCTS

AWS	MEA Automatic Weather Station
3102	Magpie Software