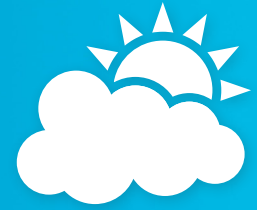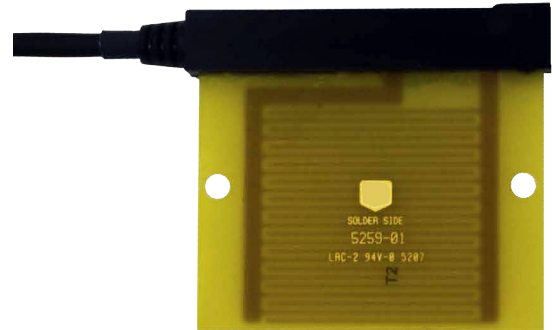# Leaf Wetness Sensor
237-L

The Leaf Wetness Sensor 237 is designed to emulate the surface area of a leaf. This sensor is compatible with the following Sutron Loggers:

- **XLite 9210 Datalogger**
- **8310 Datalogger**
- **7310 Datalogger**
- **GPRSLink Datalogger/Transmitter**
- **IridiumLink Datalogger/Transmitter**

FEATURES

- Sensor consists of a circuit board with interlacing gold-plated fingers.

- Condensation on the sensor lowers the resistance between the fingers, which is measured by the datalogger.

- Droplets must touch two fingers simultaneously to change the sensor resistance. For this reason, the 237 is typically coated with flat latex paint, which spreads water droplets. The color and type of paint affect sensor performance.

- Sensor is shipped unpainted so customer can choose appropriate surface finish that best fits their application

- Imitates characteristics of a leaf

CALIBRATION

The resistance of the sensor at the wet/dry transition point should be determined. A sharp change in resistance occurs in the wet-dry transition on the uncoated sensor; normally the transition is between 50 and 200 kohms. Coated sensors have a poorly defined transition which normally occurs from 20 kohms to above 1,000 kohms. For best results, the leaf wetness sensor should be field calibrated since the transition point will vary for different areas and vegetation.

SPECIFICATIONS	
Specifications subject to change without notice	
Temperature Range	-40° to 150°C Sensor may crack if the temperature drops below -40°C.
Resistance at Wet/Dry Transition	Normally 50 and 200 kohms
DIMENSIONS	
Width	2.75 inches (7.1 cm)
Length	3.0 inches (7.6 cm)
Depth	0.25 inches (0.64 cm)
Weight	3 oz (91 g) with 10-ft cable
ORDERING	
237-L	Wetness Sensing Grid with user-specified cable length. The sensor's cable is composed of Santoprene rubber which is resistant to temperature extremes, moisture, and UV degradation. Sensor is delivered with 16 feet of cable; extra cable is available at extra cost.
Cable Termination Options	
-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.