

SPECIFICATIONS

Measurement units: %
(0% = dry - 100% = wet)

Humidity range: 0-100%

Temperature range:
+1°C to +50°C

Sensor Type: Gold plated
printed circuit grid

Output: Serial data ASCII
format plus, either voltage 0-1
or 0-2.5V, or frequency +5V
pulse (2-10Hz)

Options: 4-20mA

Water resistance: Sensor is
manufactured to withstand
normal meteorological
conditions, but not immersion
in water

Power requirements:

Power Supply: 5 to 28V DC
unregulated

Current Drain: < 1.5mA

Cable lengths:

Standard cable length 4m
Maximum cable length 4km
using databus communications

Mounting:

Normally fixed in position at an
angle similar to that of the
object being monitored,
typically horizontal for plant
applications

Sensor dimensions:

Length: 70mm
Width: 37mm
Depth: 11mm
Weight: 185 gms

Related products:

EnviroStation™ Automatic
Weather Station

SL5 Smart Logger

TL1 Leaf Temperature sensor

TA2 Wet & dry bulb sensor

HU1 Relative humidity sensor

SGC10 Dynagae sapflow sensor

EC-20 Soil moisture sensor

SI8 PC Interface module

Leaf wetness sensor

ICT International's LW2 leaf wetness sensor replicates the effect of moisture on leaf or artificial surfaces and can be used for a variety of situations such as leaf wetness, rain event or other applications where over-spray events need to be monitored or controlled. The sensor offers a linear output graduated between 0-100% with 0% being the "Dry" end of the scale and 100% being saturated or "Wet" end of the scale.



User definable threshold

A standard "percentage" threshold should be used to define whether the leaf is "dry" or "wet" and this threshold number can be adjusted by the user for specific environments. The steep drying characteristics of the artificial leaf mean very little error results from the use of a standard threshold.

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.

Microprocessor control

The gold plated, printed circuit board of the sensor incorporates a microcontroller making it a smart sensor. This provides a number of features making the sensor also suitable for a range of control applications when used as a rain event or spray sensor. The control/alarm outputs can monitor and control applications where aerosol droplets need to be detected to stop an over-spray condition such as found in fountains or irrigation systems subjected to high wind.

Features

- Excellent sensitivity
- Differentiates "wetness"
- Repeatable measurement
- Interchangeable sensor
- No polarisation effect
- Two adjustable thresholds
- Dual control outputs
- Solid state relay stop/start control
- Low power consumption

Applications

- Fungal warnings
- Disease predictions
- Surface moisture monitoring
- Crop over-spray monitoring
- Irrigation system design and monitoring
- Plant breeding
- Crop studies
- Fountain design and control
- Building research

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