

LF101A

LEAF WETNESS DATA LOGGER



Features

- Durable Weather Resistant Housing for Logger
- Precision Leaf Wetness Sensor
- Multiple Start/Stop Function
- Ultra High Speed Download
- 1 Million Reading Storage Capacity
- Battery Life Indicator
- Optional Password Protection
- Programmable Alarm
- Field Upgradeable

Benefits

- Simple Setup and Installation
- Minimal Long-Term Maintenance
- Long-Term Field Deployment

Applications

- Environmental Studies
- Agricultural Research
- Plant Disease Forecasting
- Plant Watering
- Monitoring Frost Cycles
- Rainfall Onset Studies
- Irrigation Studies

The LF101A is a complete data logging system that accurately measures and records leaf wetness. Not only does it record the presence of water but also logs the amount of water on the sensor. The sensor responds to environments the same way a real leaf does and can also detect when ice is present. This low cost system comes complete with a data logger, weatherproof enclosure and leaf wetness sensor.



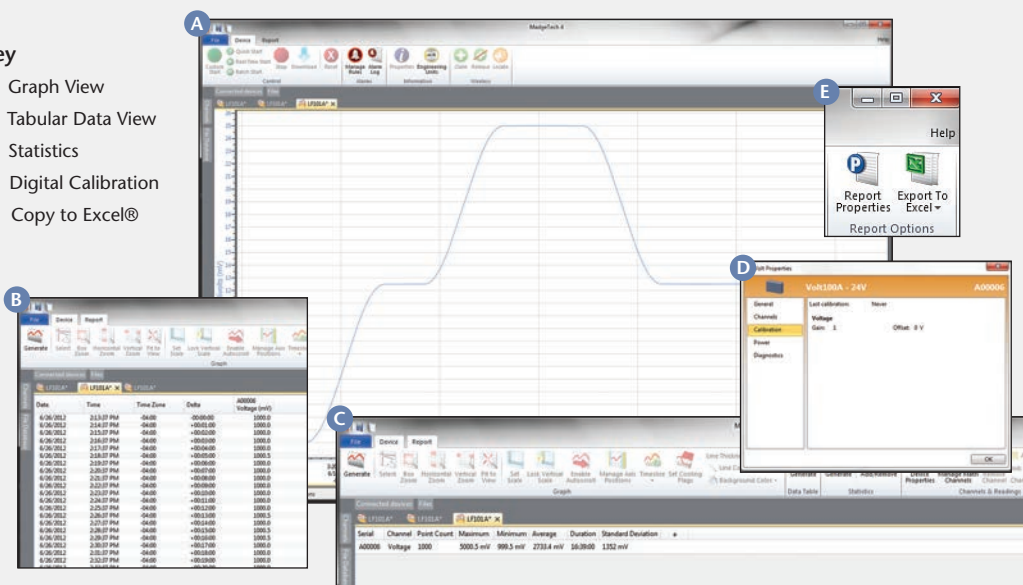
The LF101A is ideal for plant disease forecasting, irrigation studies and monitoring frost cycles. It features a multiple start/stop function, ultra-high speed download capability, 1 million reading storage capacity, optional memory wrap, battery life indicator, optional password protection, programmable alarms and more.

An IFC200 interface cable and software is required for use with the LF101A. The device can be started and stopped directly from a computer using the MadgeTech Software.

MADGETECH DATA LOGGER SOFTWARE

Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®



Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

LF101A SPECIFICATIONS*

Measurement Range:	Dry: 266 mV typical 100% Saturated: 833 mV typical
Resolution:	50 µV
Accuracy:	±0.1 mV
Specified Accuracy:	Nominal range @ 25 °C
Input Connection:	6-position removable screw terminal
Reference Output:	2.5 VDC, 2.5 mA (1 kΩ) maximum load
Temperature Effect on Span:	< 25 µV over -40 °C to +80 °C
Temperature Effect on Offset:	< 25 µV over -40 °C to +80 °C
Probe Measurement Time:	10 ms
Probe Power:	2.5 VDC @2 mA to 5 VDC @ 7 mA
Reading Rate:	4Hz to 1 every 24 hours
Memory:	1,000,000 readings; software configurable memory wrap 330,000 readings in multiple start/stop
Wrap Around:	Yes
Start Modes:	<ul style="list-style-type: none"> • Immediate start • Delay start up to 24 months • Multiple pushbutton start/stop
Stop Modes:	<ul style="list-style-type: none"> • Manual through software • Timed (specific date and time)
Multiple Start/Stop Mode:	Start and stop the device multiple times without having to download data or communicate with a PC
Multiple Start/Stop Mode Activation:	<p>To start the device: Press and hold the pushbutton for 5 seconds, the green LED will flash during this time. The device has started logging.</p> <p>To stop the device: Press and hold the pushbutton for 5 seconds, the red LED will flash during this time. The device has stopped logging.</p>

BATTERY WARNING: FIRE, EXPLOSION, AND SEVERE BURN HAZARD. DO NOT RECHARGE, DISASSEMBLE, HEAT ABOVE 212 °F, INCINERATE OR EXPOSE CONTENTS TO WATER.

*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY.

Real Time Recording:	The device may be used with PC to monitor and record data in real time
LED Functionality:	<p>Green LED blinks: 10 second rate to indicate logging 15 second rate to indicate delay start</p> <p>Red LED blinks: 10 second rate to indicate low battery and/or full memory 1 second rate to indicate an alarm condition</p>
Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out without the password.
Engineering Units:	Native measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as strain gauges and load cells.
Battery Type:	3.6V lithium battery included; user replaceable
Battery Life:	<p>10 months typical at a 1 minute reading rate with a 350 Ω load</p> <p>2 years typical at a 1 minute reading rate with a 1000 Ω load</p>
Time Accuracy:	±1 minute/month (at 20 °C/68 °F, stand alone data logging)
Computer Interface:	USB (interface cable required); 115,200 baud
Software:	XP SP3/Vista/Windows 7/Windows 8
Operating Environment:	-10 °C to +60 °C (14 °F to +140 °F), 0 %RH to 100 %RH
IP Rating:	IP65
Enclosure Dimensions:	2.9 in x 5.8 in x 1.5 in (74 mm x 148 mm x 39 mm)
Probe Dimensions:	4.4 in x 2.3 in x 0.03 in (111 mm x 58 mm x 0.76 mm)
Cable Length:	196 in (5 m)
Materials:	ABS Plastic
Weight:	8 oz (226 g)

ORDERING INFORMATION

MODEL	DESCRIPTION
LF101A	Leaf Wetness Data Logging System
IFC200	Software, manual and USB interface cable
LTC-7PN	Replacement battery for LF101A

ASK ABOUT OUR OTHER DATA LOGGERS

- Temperature
- Humidity
- Pressure
- pH
- Level
- Shock
- LCD Display
- Pulse/Event/State
- Current
- Voltage
- Wireless
- Intrinsically Safe
- Spectral Vibration
- Motion