EL-WiFi-TH
WiFi Temperature & Humidity Data Logging Sensor

FEATURES

- Temperature and Humidity data logging sensor with integrated display
- Easy sensor set-up using the free PC software application (Downloadable from www.lascarelectronics.com)
- Wirelessly stream data to PC or Cloud* via WiFi
- View and review multiple sensors, including immediate graphing of historic data
- Selectable measurement scale °C / °F
- Temperature accuracy typically ±0.3°C (+5 to +60°C)
- Humidity accuracy typically ±2.5% (20 to 80%RH @ +25°C)
- Temperature measurement resolution to 0.1°C
- Humidity measurement resolution to 1.0%RH
- Temperature display resolution to 0.5°C
- Humidity display resolution to 1%RH
- Temperature measurement range -20 to +60°C (-4 to +140°F)
- Operating temperature range -20 to +60°C (-4 to +140°F)
- Configurable high and low alarms with indicator
- Maximum and Minimum readings
- Low battery indicator
- WiFi connection indicator
- Signal strength indicator
- 802.11b compliant
- Protection rating IP55
- Rechargeable internal lithium polymer battery
- Fully featured LCD segment display
- Sensor memory stores all data even if WiFi is temporarily disconnected
- USB port used for recharging (unit must be between 0 to +40°C)
- Firmware upgradable via USB (Downloadable from the Lascar website)
- PC can be switched off without loss of data
- Supplied with wall bracket and micro USB lead
- Supported Security Protocols WEP, WPA/WPA2 – PSK

The EL-WiFi-TH sensor measures the temperature and humidity of the environment in which it is situated. This sensor is typically accurate to ±0.3°C (+5 to +60°C) and ±2.5%RH (20 to 80%RH @ +25°C). Data is streamed wirelessly over any WiFi network and can be viewed on a PC using free software package or on the EL-WiFi-Cloud*. During configuration, the sensor will search for an existing wireless network while physically connected to the PC. It can then be placed anywhere within range of the network. If the sensor temporarily loses connectivity with the network, it will log readings until it is able to communicate again with the PC application or Cloud service (max 30 days at 10 second sample interval). Although the EL-WiFi sensors have an impressive range this can be increased by using WiFi extenders.

* EL-WiFi-Cloud due to be released late 2013

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The software installed on the PC will allow set-up, data logging and data review. Set-up features will include sensor name, °C/°F, sample rate, and high/low alarms. Once configured, historic data can be viewed via the graphing tool or exported into Excel. This software is available to download for free from www.corintech.com.

The sensor is a freestanding unit, however, it can be attached to a wall or surface using the bracket and/or adhesive pad provided.

Specifications	Minimum	Typical	Maximum	Unit
USB supply voltage	4.5	5	5.5	Vdc
Operating temperature range	-20 (-4)		+60 (+140)	°C (°F)
Logging period (user configurable)	10 sec	10 min	12 hrs	
Transmission period (user configurable)	1 min	1 hr	24 hrs	
Temperature measurement range	-20 (-4)		+60 (+140)	°C (°F)
Humidity measurement range	0		100	%RH
Temperature measurement resolution		0.1		°C
Humidity measurement resolution		1.0		%RH
Temperature display resolution		0.5		°C
Humidity display resolution		1		%RH
Temperature accuracy		±0.3 (+5 to +60°C)	±0.8 (-20 to +60°C)	°C
Humidity accuracy (@ +25°C)		±2.5 (20 to 80%)	±5.0 (0 to 100%)	%RH

Warning - do not exceed operating temperatures

Battery Life and Power Supply

The EL-WiFi-TH is a battery powered device. The battery life of the sensor is variable, see table below. The product will arrive partly charged but ideally you should charge it for 24 hours before use for optimum performance. The battery can be recharged via a PC, a USB +5V wall adapter, or a portable USB battery pack using the USB lead provided. It can also be permanently powered by a USB wall adapter or USB battery pack. Readings may be affected while the internal battery is being charged. However, once charged, continued connection of the charger will have no affect. Battery life is dependant on: transmission period, wifi encryption method, wifi encryption key rotation frequency (determined by the router), signal strength between router and EL-WiFi device, presence volume and type of wifi traffic from other devices, sample rate, and operating temperature.

Transmission Rate	Typical Battery Life
1 Minute	1 Month
15 Minutes	3 Months
1 Hour+	6 Months+

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