

RL-WiFi-TH+

High Accuracy 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
- Wirelessly stream data to PC or Cloud* via WiFi
- View and analyse multiple sensors, including immediate graphing of historic data
- Selectable measurement scale °C / °F
- Temperature accuracy $\pm 0.2^{\circ}\text{C}$ (0 to $+60^{\circ}\text{C}$)
- Humidity accuracy $\pm 1.8\%$ (10 to $+90\%RH$)
- Temperature measurement resolution to 0.01°C
- Humidity measurement resolution to $0.1\%RH$
- Temperature display resolution to 0.5°C
- Humidity display resolution to $1\%RH$
- Temperature measurement range -20 to $+60^{\circ}\text{C}$ (-4 to $+140^{\circ}\text{F}$)
- Operating temperature range -20 to $+60^{\circ}\text{C}$ (-4 to $+140^{\circ}\text{F}$)
- 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 - 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

The RL-WiFi-TH+ sensor measures the temperature and humidity of the environment in which it is situated. This high accuracy version is accurate to $\pm 0.2^{\circ}\text{C}$ and $\pm 1.8\%RH$ humidity. Data is streamed wirelessly over any WiFi network and can be viewed on a PC using free software package or on the RL-WiFi-Cloud*. During configuration, the sensor will search for an existing wireless network whilst 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 120 days at 10 second sample interval). Although the RL-WiFi sensors have an impressive range this can be increased by using WiFi extenders.

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

The RL-WiFi-TH+ is a low powered battery device. When configured using typical transmission periods (e.g. once every 5 minutes) the sensor will operate for over one year (*at room temperature*). The battery can then be recharged via a PC or USB +5V wall adapter using the USB lead provided or can be permanently powered by the USB wall adapter.

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.remberg.es

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

Specifications	Minimum	Typical	Maximum	Unit
Battery life		>1*		Year
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		0.01		°C
Humidity measurement resolution		0.1		%RH
Temperature display resolution		0.5		°C
Humidity display resolution		1		%RH
Temperature accuracy (0 to +60 °C)		±0.2		°C
Humidity accuracy (10 to +90%RH)		±1.8		%RH

* Dependant on transmission rate, may be less with frequent transmissions
Warning - do not exceed operating temperatures

PHYSICAL DIMENSIONS

All dimensions in millimetres (mm)

