

EL-MOTE-TH+

High Accuracy Temperature & Humidity Cloud-Connected Data Logger



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- Measures ambient temperature between -30 to +80 °C/-22 to +176 °F and relative humidity 0 to 100 %RH
- Records and uploads temperature and humidity data to the EasyLog Cloud
- Access live temperature and humidity data via any Internet Browser or the EasyLog Cloud App
- Set up alarm options for temperature and humidity zone breaches – email alerts, beeper alarms or LED flash alerts
- Suitable for indoor and outdoor use
- Battery life of up to 2 years



The EL-MOTE-TH+ kit has been designed to monitor air temperature and relative humidity in a large range of applications. Its external temperature and humidity probe made it an ideal choice for applications where it may be problematic to locate the whole device such as museum display cases and HVAC systems.

Products in the EL-MOTE range are simple to set-up and easy to use. Download the EasyLog Cloud App and set-up a device in minutes over your WiFi network. After set-up, the device can be placed anywhere within range of the WiFi network, continually monitoring and recording your data to the EasyLog Cloud. Access your data on any Internet Browser or the EasyLog Cloud App, enabling you to monitor the ambient temperature and humidity of your chosen location from anywhere at any time.

EL-MOTE devices can be programmed with high and low temperature and humidity alarm zones. If a temperature or humidity zone is breached, an alarm will be activated. Alarm options include: email alerts (which can be sent to one or multiple email addresses), beeper sound alarms, and LED flash alerts.

EL-MOTE devices can be powered using the supplied batteries or a mains adapter (sold separately), and are provided with a wall mountable bracket for installation.

EasyLog Cloud

Your Data. Anytime. Anywhere.

EasyLog Cloud harnesses the power of IoT to automate data logging and alert notifications, enabling you to monitor and manage multiple data logging devices in different locations completely remotely. The system easily scales to meet your needs. Perfect for compact systems with just a few measuring points, or corporate solutions with thousands of devices around the globe.

You will need to create an account at www.easylogcloud.com before setting up your cloud-connected data logger.



Features at a glance*



Store your data logging records securely on the Cloud



Connect multiple users with variable account privileges



Connect data loggers from multiple sites in a single account



Easily access your most important data, anywhere



Remotely manage all of your data logging devices



Never miss a critical event with flexible advanced notifications



Review and analyse your data with powerful graphing functionality



Keep track of data events and system activity with a detailed event log

*Features depend on account type.

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Logger Specification	Minimum	Typical	Maximum	Unit
Battery Life		2*		years
Battery Type	4 x 1.5V AA cells			
Operating Temperature (Powered by Batteries Supplied)	-18 (-0.4)		+55 (+131)	°C (°F)
Operating Temperature (Mains Adapter Powered)	-20 (-4)		+60 (+140)	°C (°F)
Logging Period (User Configurable)	10 sec	10 min	12 hrs	
Transmission Period (User Configurable)	1 min	1 hour	24 hours	
Dimensions	93 x 93 x 32 (3.7 x 3.7 x 1.3)			mm (inches)
IP Rating	67			

Probe Specification	Minimum	Typical	Maximum	Unit
Temperature Range	-30 to +80 (-22 to +176)			°C (°F)
Temperature Resolution	0.01 (0.01)			°C (°F)
Temperature Accuracy		±0.2 (+5 to +60) (±0.4 (+41 to +140))	±0.8 (-20 to +60) (±1.6 (-4 to +140))	°C (range) (°F (range))
Humidity Range	0 to 100			%RH
Humidity Resolution	0.1			%RH
Humidity Accuracy (@25°C)		±1.8** (20 to 80)	±4** (0 to 100)	%RH (%RH)
Probe Dimensions (Without Bracket)	37 x 12 x 8 (1.5 x 0.5 x 0.3)			mm (inches)
Cable Length	2000 (79)			mm (inches)

The sensor is IEEE 802.11bgn (2.4GHz) compliant, supports WEP, WPA/WPA2 encryption and enterprise networks (PEAP, TTLS, FAST).



* Battery life is dependent on: transmission period, WiFi encryption method, WiFi encryption key rotation frequency (determined by the router/access point), signal strength between router/access point and WiFi device, presence, volume and type of WiFi traffic from other devices, sample rate and operating temperature. Logging period and transmission period can be configured in Settings via the EasyLog Cloud App.

**Please refer to the charts in this datasheet for more detailed accuracy specifications.

WHAT'S IN THE BOX?

PART NUMBER	DESCRIPTION
EL-MOTE WALL BRACKET	Wall Mounting Bracket for EL-MOTE Device
BATTERIES	1.5V AA x 4
EL-SP-TH+	High Accuracy Temperature and Humidity Probe on 2m Cable

WHAT EXTRA ACCESSORIES ARE AVAILABLE?

PART NUMBER	DESCRIPTION
EL-MOTE-PSU	Mains Power Adapter
EL-SP-TH+	Temperature and Humidity Probe on 2m Cable
EL-MOTE WALL BRACKET	Wall Mounting Bracket for EL-MOTE Device

Specifications liable to change without prior warning



CALIBRATION CERTIFICATES NOW AVAILABLE

EasyLog offers a Traceable Calibration Certificate Service on Temperature and Humidity Data Loggers using reference equipment which has been calibrated by a UKAS/NIST/HKAS or CNAS accredited laboratory and using apparatus traceable to national or international standards. For more information please see www.lascarelectronics/calibration



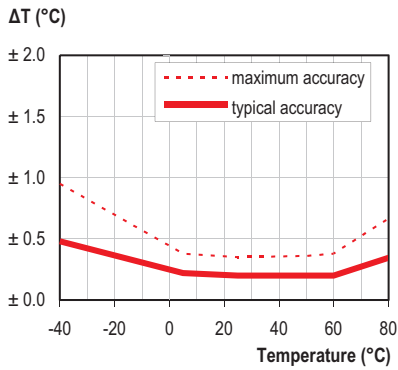
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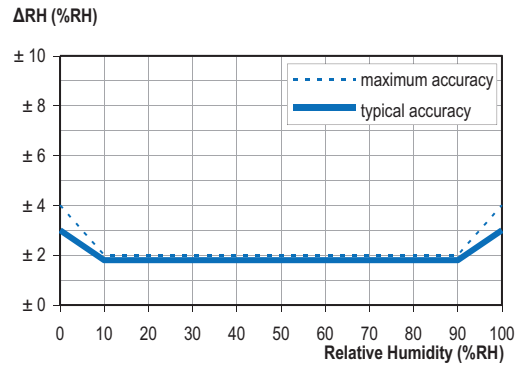


SENSOR ACCURACY & INFORMATION

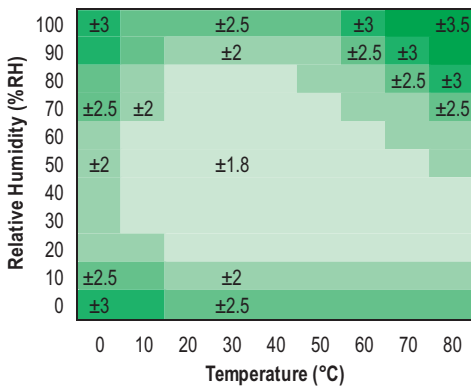
Typical and maximal tolerance for temperature sensor in °C.



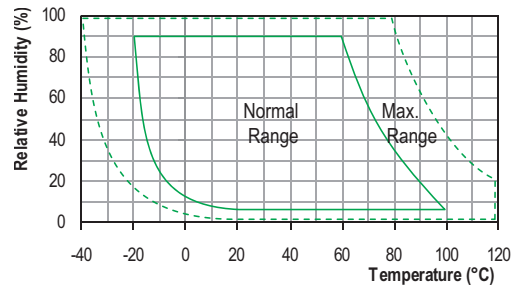
Typical and maximal tolerance at 25°C for relative humidity.



Typical accuracy of relative humidity measurements given in %RH for temperatures 0 to 80°C.



Operating conditions



Long term exposure to humidity levels outside of the 'normal' range may temporarily offset RH measurements ($\pm 3\%$ RH after 60 hours). Once returned to less extreme conditions the device will slowly return towards calibration state.

When tracking changes in ambient conditions, the response time of the humidity sensor in your data logger is approximately 20 minutes to reach 90% of the reading. However, if you are measuring step changes in humidity (for example if calibrating the product) it is advised that you leave the unit for up to four hours to ensure that it has enough time to settle at the new level.

It is worth remembering that the value of relative humidity is of course sensitive to temperature variation. As an example, at a relative humidity of $\sim 90\%$ RH at ambient temperature, a variation in temperature of 1°C will result in a change of up to -5% RH. Therefore when comparing multiple devices or calibrating them, any temperature variations must be considered.