Temperature & Humidity Wi-Fi Cloud-Connected Data Logger

EL-IOT-SP-TH

EasyLog

Your data, anytime, anywhere

- Measures temperature from -30 to +80°C
- Measures humidity from 0 to 100%RH
- Real-time email and SMS alarms, with local audible and visual indication
- Data automatically uploads to the EasyLog Cloud in real time
- Hot-swappable smart probe eliminates the need to disconnect and return your data logger for calibration
- Industry-leading accuracy
- Internal memory for 300,000 readings plus unlimited secure Cloud storage



This advanced temperature and humidity data logger can be placed anywhere within range of your Wi-Fi network, continually monitoring and recording your data to the EasyLog Cloud. You can then use the Cloud to access, analyse and share your data from any internet-connected device worldwide.

If Wi-Fi signal is lost, the logger continues logging to the internal memory, and as soon as Wi-Fi contact is restored it automatically reconnects to the Cloud and uploads the stored data.

Setup is quick and simple with the EasyLog Cloud app for Android and iOS.

The data logger can be configured with high and low alarms. If one of your parameters is breached, an alarm is instantly activated. Alarm options include email alerts and SMS messages, which can be sent to multiple contacts. There are also visual alarm indicators and sounder alerts on the device. Audit marks can be created in the data at the touch of a button.



The device can be powered using the batteries supplied or with a mains adapter (sold separately), and is provided with a wall mountable bracket for easy installation.

SPECIFICATIONS

Temperature Range	-30 to +80°C (-22 to +176°F)
Temperature Resolution	0.1°
Temperature Accuracy*	±0.3°C (+5 to +60°C) (±0.5°F (+41 to +140°F)) (Typical) ±1.2°C (-20 to +80°C) (±2.2°F (-4 to +176°F)) (Maximum)
Humidity Range	0 to 100%RH
Humidity Resolution	1%
Humidity Accuracy (At 25°C)*	±2% (20– 80) (Typical) ±5% (0– 100) (Maximum)
Logging Period	10 seconds to 12 hours (user selectable)
Transmission Interval	1 minute to 24 hours (user selectable)
Internal Memory	300,000 readings
Battery Life	6 months (Typical)
Battery Type	4 x AA 1.5V batteries (or via mains adapter)
Dimensions	94 x 83 x 31mm
Probe Cable Length	2m (79")
Operating Temperature Range of Logger	-18 to +55°C (0 to +131°F) (batteries) -20 to +60°C (-4 to +140°F) (power supply)
Environmental Rating	IP54

*Refer to Sensor Accuracy & Information

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EasyLog Cloud Your data, anytime, anywhere.



Easily access your most important data, anywhere



Automatic email alerts and SMS





Connect data loggers from multiple sites in one account



Remotely manage all of your data logger devices



Graph, review and analyse your data



Audits are easy with our event log system



Secure Cloud storage



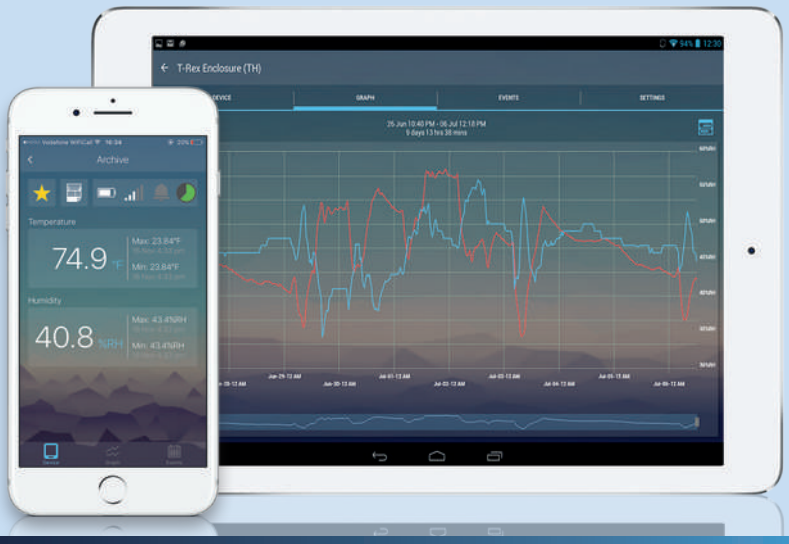
Configurable user profiles

EasyLog Cloud App

Available for Android and Apple devices, the EasyLog Cloud app enables you to monitor and manage your wireless sensors on the go.

GET IT ON Google Play

Download on the App Store



Access your vital data from any internet-enabled computer, tablet or mobile device with EasyLog Cloud. From single locations to worldwide operations, the system is perfectly scalable and can run through your existing wireless networks.

Critical events are notified to specific users in seconds via an alarm system that's easily tailored to your exact requirements.

Data is accessible 24/7 and powerful online tools make it simpler than ever to view, compare and analyse readings. An audit trail is automatically created that includes both system and data events.

Starter and Professional accounts are available, always flexible and with no locked-in contracts.

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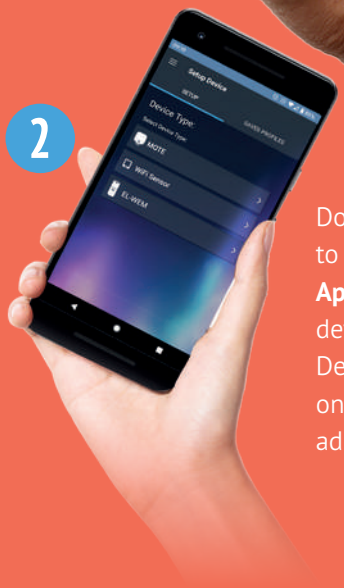
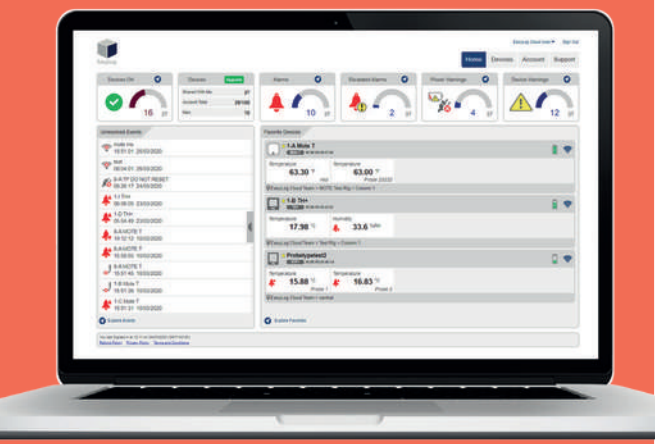
CONNECTING TO THE CLOUD



1 Install the batteries.



2 Download and sign in to the **EasyLog Cloud App** on your mobile device. Select "Setup Device" and follow the on-screen instructions to add your EL-IOT-SP-TH.



3 You can now view the EL-IOT-SP-TH's data and change settings either in the EasyLog Cloud App or by visiting your account at: **www.easylogcloud.com**

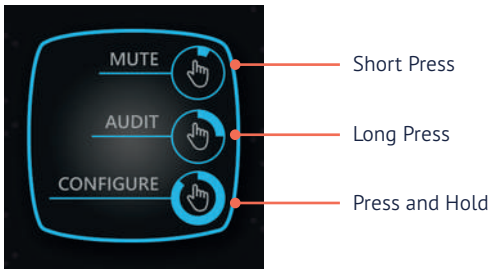
STATUS INDICATORS

The EL-IOT-SP-TH has a sounder and four indicators that clearly indicate its current status:

Indicator				
Status	Device in operation	Alarm	Battery Low	Wi-Fi Active

BUTTON FUNCTIONS

The main button is used to control the device functions, some of which also create a record in an Event Log, which can be viewed on the EasyLog Cloud website.



Button Press	Short press < 1s	Long press > 1s-8s	Press and Hold > 8s
Function	Mutes the alarm sounder	Reset an alarm, creates an audit event in the record, forces data synchronisation with the Cloud	Activates configuration mode to reconnect with the App

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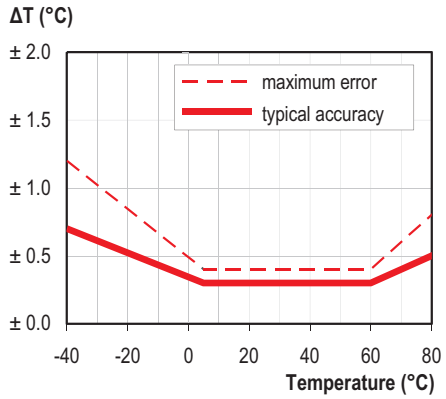
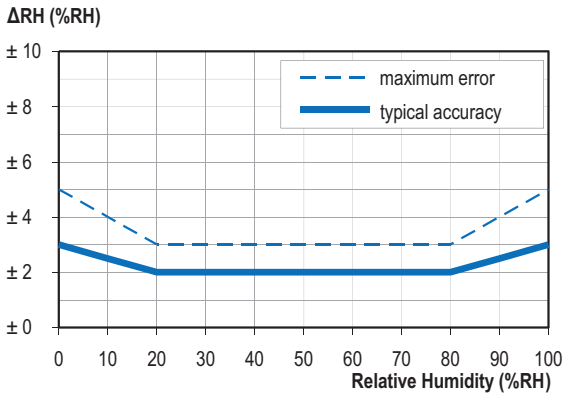
SENSOR ACCURACY & INFORMATION

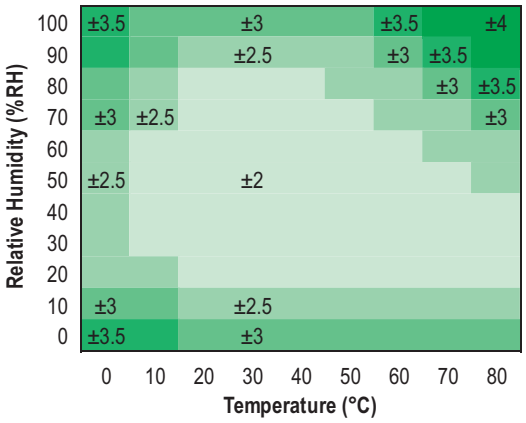
Typical and maximal tolerance for temperature sensor in °C.



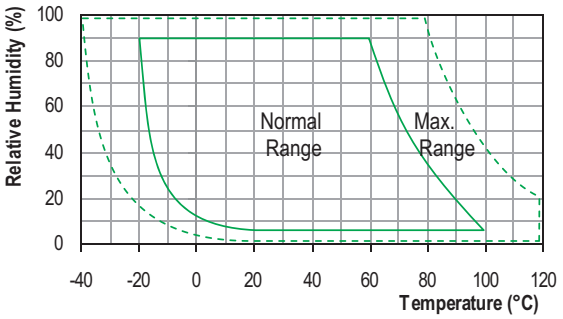
Typical and maximal tolerance at 25°C for relative humidity.



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 (±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 ~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.

The sensor is IEEE 802.11bgn* (2.4GHz) compliant, supports WPA/WPA2/WPA3 encryption and enterprise networks (PEAP, TTLS).

*MAC Address starting 98:8B:AD:2..... only

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INCLUDED IN THE BOX



BAT 1V5 AA PK4
4 x AA 1.5V alkaline batteries



EL-IOT WALL BRACKET
Wall mounting bracket with magnets



EL-SP-TH
Temperature and Humidity Probe

ACCESSORIES



BAT 1V5 AA PK4
4 x AA 1.5V alkaline batteries



PSU EL-IOT
Power supply



EL-IOT WALL BRACKET
Wall mounting bracket



EL-SP-TH
Temperature and Humidity Probe

ALSO IN THE RANGE



EL-IOT-1
Ambient temperature data logger



EL-IOT-TC
Wireless thermocouple temperature data logger



EL-IOT-SP-TH+
High accuracy temperature and humidity data logger

Vist lascarelectronics.com/data-loggers to see our full range of data loggers and measuring devices

BATTERY INFORMATION

We recommend that you replace the batteries annually, or prior to logging critical data. Use only AA 1.5V alkaline batteries.

The logger does not lose its stored data readings when the batteries are discharged or replaced. However, the logging process will stop and will not resume until the batteries are replaced or a power supply is connected.

Battery life is dependent on: transmission period, Wi-Fi encryption method, signal strength between router/access point and the EL-IOT logger, presence volume and type of Wi-Fi traffic from other devices, sample rate, operating temperature and duration of alarms.

CALIBRATION CERTIFICATES

Lascar offers a Traceable Calibration Certificate Service for temperature and humidity sensors. Using reference equipment which has been calibrated by a UKAS/NIST accredited laboratory and using apparatus traceable to national or international standards. For more information please see www.lascarelectronics.com.

TECHNICAL INFORMATION

Power Supply Voltage	9Vdc, 300mA
Operating Environment (battery power)	-18 to +55°C, 5% to 85% RH, 75kPa to 106kPa
Operating Environment (power supply)	-20 to +60°C, 5% to 85% RH, 75kPa to 106kPa
Transportation and Storage Environment	-20 to +60°C, 5% to 85% RH, 75kPa to 106kPa
Net Weight	222g
Recommended Wall Fixing Screws	3.5 x 20mm, countersunk head, cross recessed, stainless steel