

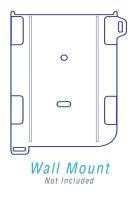
# Log Tag Recorders



LogTag's UHADO-16 is a fully configurable, multi-use USB PDF temperature and humidity logger that shows the most recent reading on the built-in display and can create reports without the need to install proprietary software or hardware at the destination.

Minimum and maximum recorded trip values can be reviewed directly on the display without the need for a PC.

## Accessories









LTI WiFi Not Included

## Features



Record and display Temperature & Humidity readings simultaneously.



Up to 16,000 sets of recordings - enough for the longest trip.



Real time clock provides date/time stamp for every recording.



USB micro-port for direct connection to a computer.



Automatic generation of a PDF, CSV, LTD report without special software.



Supports fast download using standard and Wifi LogTag® Interface cradles.



User configuration for alarm setting, logging interval, trip duration etc.



In transit inspections can be recorded at the push of a button.



User-replaceable coin cell battery.

# Applications



Pharmaceuticals





Warehousing



Transportation



HVAC



Farming

# Specifications

Sensor Measurement Range	Product Model	UHADO-16.
Storage Furnidity Range	Sensor Measurement Range	-30°C to +70°C (-22°F to +158°F).
Humidity Measurement Range		-30°C to +70°C (-22°F to +158°F).
Humidity Operating Range  Rated Temperature Reading Accuracy  Better than 9.0 \$5°C (4.93°F ) or +0°C to +50°C (4.93°F to +122°F), typically ±0.3°C (0.8°F) setter than 9.0 \$0°C (4.17 for +50°C to +70°C (4.93°F to +123°F), typically ±0.5°C (9.9°F) setter than 10.0 \$0°C (4.17 for +50°C to +70°C (4.93°F to +123°F), typically ±0.5°C (1.9°F). Actual performance is typically much better than 10.0 \$0°C (4.17 for +50°C to +70°C (4.03°F to +325°F), typically ±0.0 \$°C (1.1°F). Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  Storage Humidity Range  9.65%, non condensing.  4.64049 performance is typically 10.0 \$°C (4.00°F to +32°F), typically ±2.0 \$°C (1.1°F). Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  Storage Humidity Range  9.65%, non condensing.  4.64049 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  8.640419 performance is typically state to 100°C (40°C to 10°C (40°C to 10°C (40°C to 10°C	Storage Temperature Range	0°C to +40°C (+32°F to +104°F).
Better than ±0.45°C (±0.8°F) for +0°C to +50°C (+32°F), typically ±0.3°C (0.6°F). Better than ±0.05°C (±1.4°F) for +6°C to +50°C to +70°C (±1.2°F), to +165°F), picially ±0.5°C (0.9°F). Better than ±0.05°C (±1.7°F) for +6°C to +0°C (±0°F to +50°F), typically ±0.5°C (0.9°F). Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.    Rated Humidity Reading Accuracy   Better than ±0.85°C (±1.7°F) for +6°C to +0°C (±0°F to +50°F), typically ±3.6°C (±1.4°F). Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.    Storage Humidity Range   0.65%, no condensing.   0.65%, no c	Humidity Measurement Range	0% RH to 100% RH, with limitations.
Better than ± 0.8°C (± 1.4°F) for ± 0°C to 0°C (± 0°C to ± 1.58°F.), bytically ± 0.5°C (0.9°F.). Better than ± 0.98°C (± 1.4°F) for ± 0°C to 0°C (± 0°C to ± 1.58°F.), bytically ± 0°C (0.1°F.).  Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  Better than ± 0.5°F (± 1.6°C ± 0.0°F + 1.0°C ± 0.0°F	Humidity Operating Range	0% RH to 100% RH (non-condensing), with limitations.
Better than ±5%RFH for 09%RFH to 100%RFH, typically ±4%RFH. Actual performance is typically much better than the rated values. Accuracy figures can be improved by recalibration.  Storage Humidity Responsibility  Better than 0.1% RFH.  Temperature Resolution  Better than 0.1% Cor 0.1°F  Recording Capacity  16,128 pairs of humidity and temperature readings 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 10min logging, 188 days @ 15min logging, 112 days @ 15min logging, 188 days @ 15min logging, 112 days @ 15min logging, 188 days @ 15min logging, 112 days @ 15min logging,	Rated Temperature Reading Accuracy	Better than ±0.8°C (±1.4°F) for +50°C to +70°C (+122°F to +158°F), typically ±0.5°C (0.9°F).  Better than ±0.95°C (±1.7°F) for -40°C to +0°C (-40°F to +32°F), typically ±0.6°C (1.1°F).
Humidity Resolution Better than 0.1% RH.  Temperature Resolution Better than 0.1°C or 0.1°F  Recording Capacity 16,128 pairs of humidity and temperature readings 112 days @ 10min logging, 186 days @ 15min logging. Statistics memory for displaying maximum animinum Temperature and RH values on the LCD.  Sampling Interval Configurable from 30 seconds to several hours.  Logging Start Options Push button start or specific date & time.  Recording Indication State indicator "REC." Alarms 4 temperature and 2 humidity alarms.  Download Time Typically less than 10 seconds for full memory, depending on computer or readout device used.  Environmental IP61 (when hung or mounted vertically).  Power Source CR2032 3V LiMnO <sub>2</sub> Battery (Replaceable).  Battery Life 1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock Built-in real time clock. Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.008ppm/"C (I.e typically +/- 0.00294 seconds/day/"C).  Connection Interface Interface Cradle or USB 2.0 / Micro USB plug (cable not included).  Software LogTag® Analyzer & LogTag® Online.  Size  93mm(H) x 54.5mm(W) x 8.6mm(T).  Weight	Rated Humidity Reading Accuracy	Better than ±5%RH for 0%RH to 20%RH, typically ±4%RH. Better than ±5%RH for 80%RH to 100%RH, typically ±4%RH.
Temperature Resolution  Recording Capacity  16,128 pairs of humidity and temperature readings 112 days @ 10min logging, 168 days @ 15min logging. Statistics memory for displaying maximum and minimum Temperature and RH values on the LCD.  Sampling Interval  Configurable from 30 seconds to several hours.  Logging Start Options  Push button start or specific date & time.  Recording Indication  State indicator "REC."  Alarms  4 temperature and 2 humidity alarms.  Download Time  Typically less than 10 seconds for full memory, depending on computer or readout device used.  Environmental  IP61 (when hung or mounted vertically).  Power Source  CR2032 3V LiMnO <sub>2</sub> Battery (Replaceable).  Battery Life  1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock  Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day), Rated temperature coefficient is -0.034 ±0.006ppm/"C (i.e typically +/- 0.00294 seconds/day/"C).  Connection Interface  Interface Cradle or USB 2.0 / Micro USB plug (cable not included).  Software  LogTag® Analyzer & LogTag® Online.  Size  93mm(H) x 54.5mm(W) x 8.6mm(T).  Weight	Storage Humidity Range	0-65%, non condensing.
Recording Capacity  16,128 pairs of humidity and temperature readings 112 days @ 10min logging, 168 days @ 15min logging. Statistics memory for displaying maximum and minimum Temperature and RH values on the LCD.  Sampling Interval  Configurable from 30 seconds to several hours.  Logging Start Options  Push button start or specific date & time.  Recording Indication  State indicator "REC."  Alarms  4 temperature and 2 humidity alarms.  Download Time  Typically less than 10 seconds for full memory, depending on computer or readout device used.  Environmental  IP61 (when hung or mounted vertically).  Power Source  CR2032 3V LiMnO <sub>2</sub> Battery (Replaceable).  Battery Life  1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock  Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.006ppm/°C (i.e typically +/-0.00294 seconds/day/°C).  Connection Interface  Interface Cradle or USB 2.0 / Micro USB plug (cable not included).  Software  LogTag® Analyzer & LogTag® Online.  Size  93mm(H) x 54.5mm(W) x 8.6mm(T).  Weight  16,128 pairs of humidity and startine readings  16,128 days @ 15min logging, 168 days @ 15min logging,	Humidity Resolution	Better than 0.1% RH.
112 days @ 10min logging, 188 days @ 15min logging.   Statistics memory for displaying maximum and minimum Temperature and RH values on the LCD.   Sampling Interval   Configurable from 30 seconds to several hours.   Logging Start Options   Push button start or specific date & time.   Recording Indication   State indicator "REC."     Alarms   4 temperature and 2 humidity alarms.   Download Time   Typically less than 10 seconds for full memory, depending on computer or readout device used.   Environmental   IP61 (when hung or mounted vertically).   Power Source   CR2032 3V LiMnO, Battery (Replaceable).   Battery Life   1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).   Real Time Clock   Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.006ppm/°C (I.e typically +/-0.00294 seconds/day)*C).   Connection Interface   Interface Cradle or USB 2.0 / Micro USB plug (cable not included).   Software   LogTag® Analyzer & LogTag® Online.   Size   93mm(H) x 54.5mm(W) x 8.6mm(T).	Temperature Resolution	Better than 0.1°C or 0.1°F
Logging Start Options  Recording Indication  State indicator "REC."  Alarms  4 temperature and 2 humidity alarms.  Download Time  Typically less than 10 seconds for full memory, depending on computer or readout device used.  Environmental  IP61 (when hung or mounted vertically).  Power Source  CR2032 3V LiMnO <sub>2</sub> Battery (Replaceable).  Battery Life  1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock  Built-in real time clock. Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated accuracy ±25ppm @ 25°C (le typically +/- 0.00294 seconds/day)/°C).  Connection Interface  Interface Cradle or USB 2.0 / Micro USB plug (cable not included).  Software  LogTag® Analyzer & LogTag® Online.  Size  93mm(H) x 54.5mm(W) x 8.6mm(T).	Recording Capacity	112 days @ 10min logging, 168 days @ 15min logging.
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Alarms 4 temperature and 2 humidity alarms.  Download Time Typically less than 10 seconds for full memory, depending on computer or readout device used.  Environmental IP61 (when hung or mounted vertically).  Power Source CR2032 3V LiMnO <sub>2</sub> Battery (Replaceable).  Battery Life 1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock Built-in real time clock. Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.006ppm/°C (I.e typically +/- 0.00294 seconds/day/°C).  Connection Interface Interface Cradle or USB 2.0 / Micro USB plug (cable not included).  Software LogTag® Analyzer & LogTag® Online.  Size 93mm(H) x 54.5mm(W) x 8.6mm(T).  Weight 41g.	Logging Start Options	Push button start or specific date & time.
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Environmental IP61 (when hung or mounted vertically).  Power Source CR2032 3V LiMnO₂ Battery (Replaceable).  Battery Life 1 year storage, 1 year of normal use (based on 15 minute logging, download data monthly).  Real Time Clock Built-in real time clock. Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day). Rated temperature coefficient is -0.034 ±0.006ppm/°C (I.e typically +/- 0.00294 seconds/day/°C).  Connection Interface Interface LogTag® Analyzer & LogTag® Online.  Size 93mm(H) x 54.5mm(W) x 8.6mm(T).  Weight 41g.	Alarms	4 temperature and 2 humidity alarms.
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Software         LogTag® Analyzer & LogTag® Online.           Size         93mm(H) x 54.5mm(W) x 8.6mm(T).           Weight         41g.	Real Time Clock	Rated accuracy ±25ppm @ 25°C (equivalent to 2.5 seconds/day).
Size         93mm(H) x 54.5mm(W) x 8.6mm(T).           Weight         41g.	Connection Interface	Interface Cradle or USB 2.0 / Micro USB plug (cable not included).
Weight 41g.	Software	LogTag® Analyzer & LogTag® Online.
	Size	93mm(H) x 54.5mm(W) x 8.6mm(T).
Case Material Polycarbonate.	Weight	41g.
	Case Material	Polycarbonate.









#### Re-conditioning Procedure

Exposure of the internal sensor to chemical vapors may interfere with the internal sensor and cause inaccurate readings to be logged. In a clean environment, this will slowly rectify itself. However, exposure to extreme conditions or chemical vapors will require the following reconditioning procedure to bring the internal sensor back to calibration state.

70°C (158°F) at<5%RH for 36 hours (baking) followed by 20-30°C (70-90°F) at>74%RH for 48 hours (re-hydration) High levels of pollutants may cause permanent damage to the internal sensor.

### **Exposure to Chemicals**

Chemical vapors may interfere with materials used for the humidity sensor. The diffusion of chemicals into the sensor's polymer may cause a shift in both offset and sensitivity. In a clean environment the contaminants will slowly outgas.

The reconditioning procedure described above will accelerate this process. High levels of pollutants may cause permanent damage to the humidity sensor's polymer.