

Model #: TH-USB. Humidity, Temperature and Dew Point USB Data Logger



This data logger measures and stores up to 16,382 relative humidity and 16,382 temperature readings over 0 to 100%RH and -35 to +80°C (-31 to +176°F) measurement ranges. The user can easily set up the logging rate and start-time, and download the stored data by plugging the module straight into a PC's USB port and running the purpose designed software under Windows 98, 2000, XP and Vista (32-bit). Relative humidity, temperature and dew point (the temperature at which water vapor present in the air begins to condense) data can then be graphed, printed and exported to other applications. The data logger is supplied complete with a long-life lithium battery, which can typically allow logging for a year. Status indication is via flashing red and green LEDs. The logger is protected against ingress from water and dust to IP67 standard when the plastic cap and seal are fitted.

## FEATURES

- 0 to +100%RH Measurement Range
- -35 to +80°C (-31 to +176°F) Measurement Range
- Dew point indication via Windows Control Software
- USB Interface for Set-up and Data Download
- User-Programmable Alarm Thresholds for %RH & T
- Status Indication via Red and Green LEDs
- Supplied with Replaceable Internal Lithium Battery and Windows Control Software
- Environmental Protection to IP67

## WINDOWS CONTROL SOFTWARE

Easy to install and use, the control software runs under Windows 98, 2000, XP (Home and Professional Editions) and Vista (32-bit). It allows the user to set up and download any TH-USB. The latest version of the control software may be downloaded from [www.powersight.com](http://www.powersight.com)

### DATA LOGGER SET-UPS

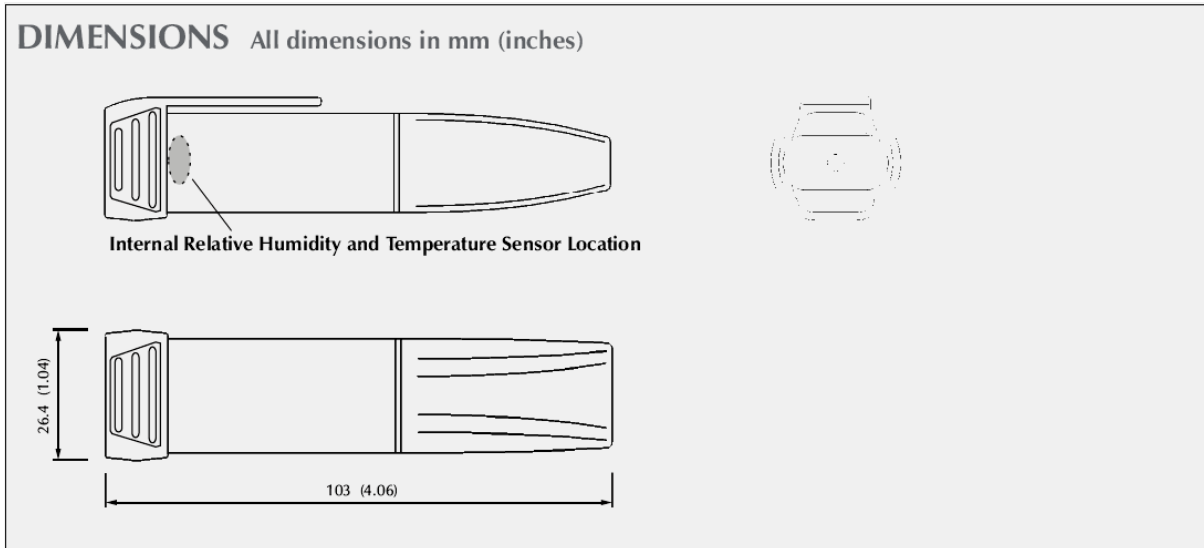
- Logger Name
- °C, °F
- Logging Rate (10s, 1m, 5m, 30m, 1hr, 6hr, 12hr)
- High and Low Alarms for Humidity and Temperature
- Start Date and Start Time

Specification		Min	Typ	Max	Unit
Relative Humidity	Measurement range	0		100	%RH
	Repeatability (short term)		+0.1		%RH
	Accuracy (overall error) (20-80%RH)		+3.0**		%RH
	Internal resolution		0.5		%RH
	Long term stability		0.5		%RH/Yr
Temperature	Measurement range	-35 (-31)		+80 (176)	°C (°F)
	Repeatability		+0.1 (+0.2)		°C (°F)
	Accuracy (overall error)		+0.5 (+1)	+2 (+4)	°C (°F)
	Internal resolution		0.5 (1)		°C (°F)
Dew Point	Accuracy (overall error) (25°C, 40-100%RH)		+1.1 (+2)***		°C (°F)
Logging rate		every 10s		every 12hr	-
Operating temperature range		-35 (-31)		+80 (176)	°C (°F)
1/2AA 3.6V Lithium Battery Life*			1		Year

\* Depending on sample rate, ambient temperature and use of alarm LEDs

\*\* This specifies the overall error in the logged readings, for relative humidity measurements between 20 and 80%RH.

\*\*\* This specifies the overall error in the calculated dew point, for relative humidity measurements between 40 and 100%RH at 25°C.



### LED FLASHING MODES

TH-USB features 2 bi-colour LEDs, one LED represents temperature measurement, the other represents RH. Each is clearly marked on the logger. To save power, the status indication alternates between the two channels every 10 seconds. So first you will see the status of the temperature logging and 10 seconds later you will see the status of the RH logging and so on.



### BATTERY REPLACEMENT

**WARNING: Handle lithium batteries carefully, observe warnings. Dispose of in accordance with local regulations.**

We recommend that you replace the battery every 12 months, or prior to logging critical data.

The TH-USB does not lose its stored readings when the battery is discharged or when the battery is replaced; the data logging process will however be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to PC.

Only use 3.6V 1/2AA lithium batteries. Check with your supplier that the battery you are ordering is 'press fit' and is not fitted with solder tags. Before replacing the battery, remove the TH-USB from the PC.

Note: Leaving the TH-USB plugged into the USB port for longer than necessary will cause some of the battery capacity to be lost.

### CAUTION

High levels of pollutants may cause permanent damage to the internal sensor.

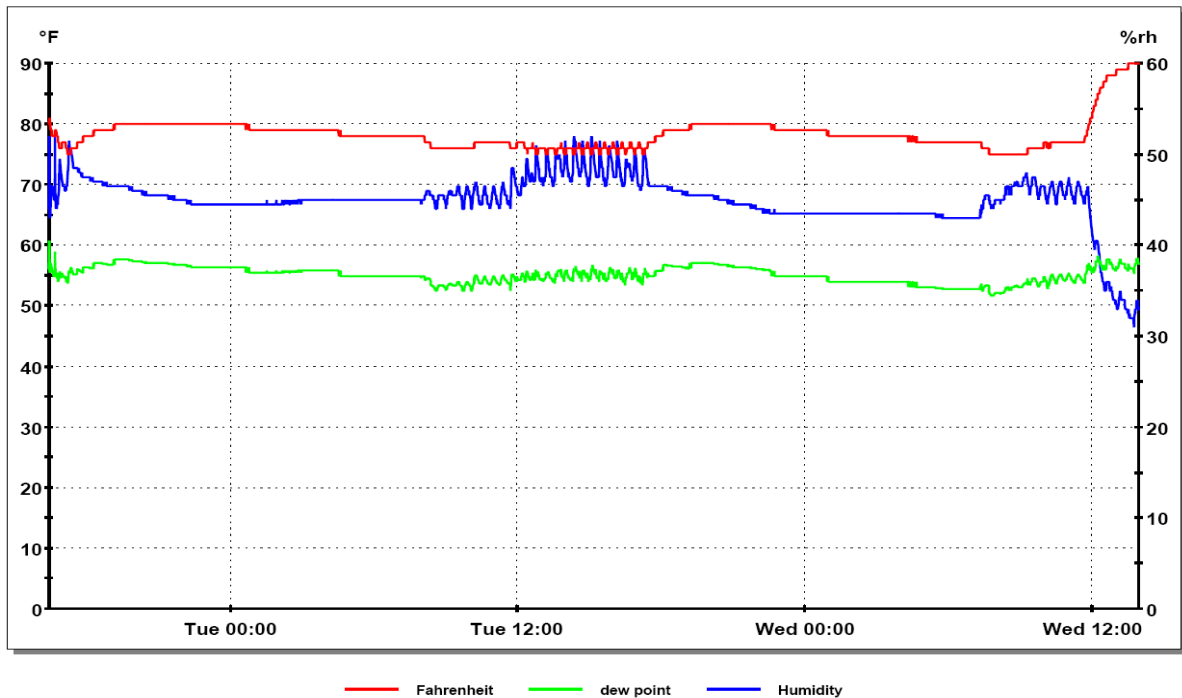
Exposure of the internal sensor to chemical vapours such as those produced by some plastics and foamed materials may interfere with the internal sensor and cause inaccurate readings to be logged, therefore ensure that the logger is used in a ventilated area i.e. air exchange is allowed.

In a clean environment, this will slowly rectify itself. However, exposure to extreme conditions or chemical vapours will require the following reconditioning procedure to bring the internal sensor back to calibration state. 80°C (176°F) at <5%RH for 36h (baking) followed by 20-30°C (70-90°F) at >74%RH for 48h (re-hydration)

### ORDERING INFORMATION

Order model # TH-USB

Temperature & Humidity Logger comes with software disc, battery, and manual.



*Specifications subject to change without prior notice*