TruTrack Data Logger

Dual Temperature / Humidity Logger Model THT-HR mark 3

Three Channel High Resolution (10 bit) Humidity and Temperature Data Logger.

The THT-HR is a small Three Channel High Resolution (10 bit) Humidity and Temperature data logger housed in a rugged 304 stainless steel case. The humidity and temperature sensors are housed in a 60 micron Stainless Steel filter at the top of the logger. There is an additional external temperature sensor with a soil penetration probe and 1500mm of cable. The THT-HR logger uses a Sensirion SHT11 humidity sensor giving ±3.0%RH accuracy from 20%RH to 80%RH. Logging can be configured to: start on time, immediate start, stop when full, loop around (overwrite oldest data).

Features:

- Temperature & Humidity can be set to any combination of Point, Average, Maximum & Minimum readings.
- Temperature can be logged in high resolution or low resolution mode.
- Low resolution mode is used to increase the number of samples.
- It is recommended that Humidity is always logged in High resolution mode.
- The data from any logger that records Temperature and Relative Humidity can be processed, by the Omni7/ OmniLog software, to add Absolute Humidity and/or Dew Point readings to the data.
- The logger can be set to log Temperature only, Humidity only or both Temperature and Humidity.
- The battery voltage of the logger can be logged if required.
- The logger can be run in either "Stop when memory is Full", "Loop Around" mode or set to stop at a future time.
- The logger can be started "Now" or started at a given time in the future.
- The data from any logger that records Temperature can be processed, by the OmniLog software, to give daily, weekly and monthly accumulated Grow Degree Day reports for a wide range of horticultural crops.

Ordering Information: **THT-HR**   Dual Temperature / Humidity data logger

THT-HR Dimensions:

156mm | 20mm

TruTrack Data Logger
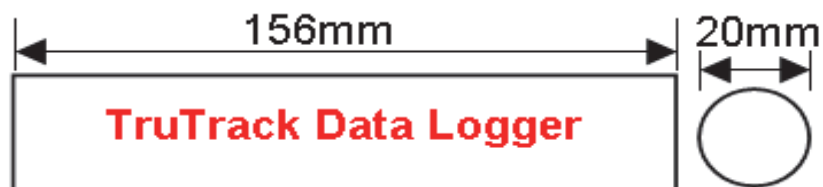
Putting into service (Using Omni7 - the original OmniLog differs slightly):

1. From the SWDL-DLC Omni7 software and Download cable kit, **first install the Omni7 software**, then plug the Download cable into a spare USB or serial port on your PC (depending on which type you have).
The Omni7 has an excellent "Help". This will need to be read to enable successful operation of the Omni7 Data Management Program and gain familiarisation of the many advanced features available.

2. Connect the data logger to the download cable. Select the correct connection type on the Omni7 screen. Omni7 requires manual connection and disconnection to the data logger using the Green 'Connect' and Red 'Disconnect' buttons. It will not connect to a data logger automatically. (Refer to "Help" for further assistance.)

3. On the "Logger Control" screen, click on "Channel and Probe Setup" button, and check the Battery Condition, plus other configurations.

4. Now click on the "Start Logger" tab for the final configurations, before putting the logger into service.

Specifications:

Humidity:	Sensor Type	Sensirion SHT11
		Digital humidity sensor
		Long-term stability
		Fully calibrated by Sensirion
		Response time 4 seconds
		Range 0%~100%
	Accuracy	±3.0%RH from 20% to 80%
		±5%RH from 0 to 20% and 80% to 100%
	Resolution	0.5%RH
	Filter	60 micron Stainless Steel
Internal Temperature:	Sensor Type	Thermister
	Linear accuracy over range	±0.3ºC (0ºC to 70ºC)
	Repeatability	±0.1ºC
	Long term stability	±0.1ºC
External Temperature:	Sensor Type	Thermister
	Probe Type	Sharpened Stainless Steel 140mm X 5mm
	Probe Cable	Tefzel 1500mm
	Working Temperature	-30ºC to +110ºC
	Linear accuracy over range	±0.3ºC (0ºC to 70ºC)
	Repeatability	±0.1ºC
	Long term stability	±0.1ºC
Logger:	Working Temperature	-30ºC to +70ºC
	Storage Temperature	-30ºC to +70ºC
	Sampling Rate	1 second minimum, 10 hours maximum; in 1 second intervals
	Storage capacity	64,000 8 bit samples; 32,000 12 bit samples
	Alarms	Two independent Alarms
		Triggered on any combination of six user configurable Alarm conditions
		One alarm can be configured to dial a PocketPager
		Alarms can be visually checked using the Omni7/OmniLog Software
	Start modes	Start immediately / Start on date/time
	Stop modes	Stop when memory is full / Stop on date/time /
		Loop around (continues logging)
	Logging modes	Each channel can be set to log any combination of:
		- Point readings - Maximum reading
		- Average reading - Minimum reading

Warning: When using the Average, Maximum or Minimum reading(s), the logger reads the attached sensor(s) every second. **This will reduce battery life.**

	Battery	One to Five year life depending on usage as above
		Using the logger in temperatures below -5°C (23°F) will reduce battery life
		One ½AA 3.6V lithium cell; Factory Replaceable
		The data is retained in the case of battery failure
		Battery Status Monitor in Omni7/OmniLog software
	Download time	35 seconds for Full Logger
	Case material	304 Stainless tube
	Screw on end cap	Plated brass
	Weight	110g
	Size	20mm diameter X 144 mm long
		1500mm external temperature cable
		Sharpened Stainless Steel penetration probe; 140mm x 5mm

A **DLC3USB** [USB] or **DLC3** [RS232] **download cable** is required to connect the THT-HR to a computer.