

TruTrack Data Logger

Dual Temperature / Humidity Logger Model THT-HR mark 4

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 SHT15 humidity sensor giving $\pm 2.0\%$ RH accuracy from 10%RH to 90%RH. Logging can be configured to: start on time, immediate start, stop when full, loop around (overwrite oldest data).

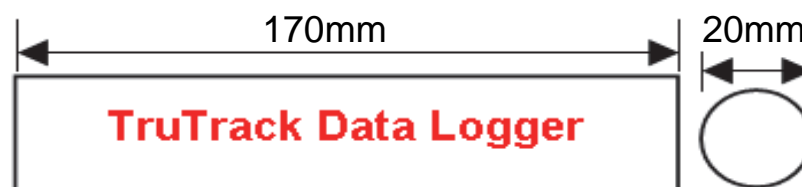


Features.

- 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 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 Omni7 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.
DLC3USB [USB] or DLC3 [RS232] download cable (2m) to connect THT-HR with computer.

THT-HR Dimensions.



Putting into service with Omni7 Data Management software.

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 [standard size] or RS232 serial port on your computer (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.

Product Liability. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

Specifications.

Humidity:	Sensor Type	Sensirion SHT15 Digital humidity sensor Long-term stability Fully calibrated by Sensirion
		Response time 4 seconds
		Range 0%~100%
	Accuracy	±2.0%RH from 10% to 90% ±3%RH from 0 to 10% and 90% to 100%
	Resolution	0.5%RH
	Filter	60 micron Stainless Steel
Internal Temperature:	Sensor Type	Thermister
	Linear accuracy over range	±0.3°C (0°C to 70°C)
	Repeatability	±0.1°C
	Long term stability	±0.1°C
External Temperature:	Sensor Type	Thermister
	Probe Type	Sharpened Stainless Steel 140mm X 5mm
	Probe Cable	Tefzel 1500mm
	Working Temperature	-30°C to +110°C
	Linear accuracy over range	±0.3°C (0°C to 70°C)
	Repeatability	±0.1°C
	Long term stability	±0.1°C
	Working Temperature	-30°C to +70°C
Logger:	Storage Temperature	-30°C to +70°C
	Sampling Rate	1 second minimum, 10 hours maximum; in 1 second intervals
	Storage capacity	1,044,480 8 bit samples; 522,240 12 bit samples
	Alarms	Two independent Alarms Triggered on any combination of six user configurable Alarm conditions Both alarms can be configured to send SMS messages Alarms can be visually checked using the Omni7 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 TruTrack 7.2V lithium cell; User Replaceable The data is retained in the case of battery failure Battery Status Monitor in Omni7 software
	Download time	35 seconds for Full Logger
Case material	304 Stainless tube	
Screw on end cap	Plated brass	
Weight	115g	
Size	20mm diameter X 170mm long 1500mm external temperature cable Sharpened Stainless Steel penetration probe; 140mm x 5mm	

A **DLC3USB [USB]** or **DLC3 [RS232]** **download cable** (2m) is required to connect the THT-HR to a computer.

THT-HR Maintenance.

Maintenance needed for the THT-HR depends on the environment. Often no maintenance is required.

However, it is necessary to keep the filter clean. If the filter is dirty then remove it and soak it in meths, then use compressed air to ensure it is completely dry before reattaching to the logger.

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