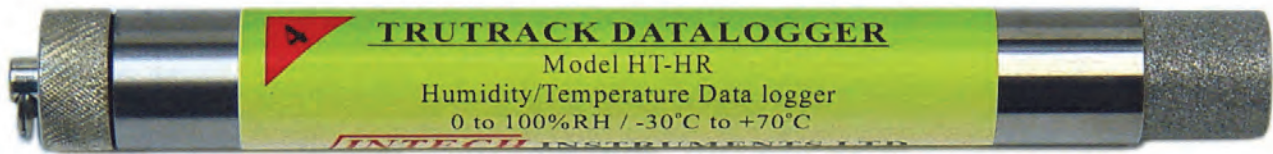# TruTrack Data Logger

Single Temperature / Humidity Logger Model HT-HR mark 4

**Dual Channel High Resolution (16 bit) Humidity & Temperature Data Logger.**

The HT-HR is a small Dual Channel High Resolution (16 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. The HT-HR mark 4 uses a Sensirion SHT15 humidity sensor giving ±2.0%RH accuracy from 10%RH to 90%RH. The logger contains an integral internal temperature sensor which is logged separately to humidity. Logging can be configured to: start on time, immediate start, start on condition, stop when full, loop around (overwrite oldest data).

Features:

- Temperature & Humidity can be set to any combination of Point, Average, Maximum & Minimum readings.
- 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 Humidity only, Temperature only or both Humidity and Temperature.
- 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/OmniLog software, to give daily, weekly and monthly accumulated Grow Degree Day reports for a wide range of horticultural crops.

Ordering Information: **HT-HR**   Humidity / Temperature data logger

HT-HR Dimensions:
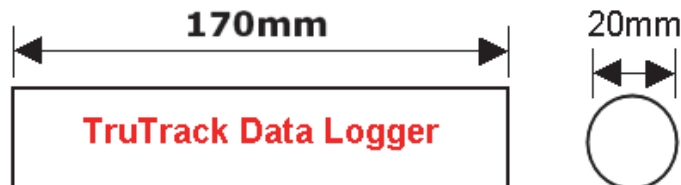
Putting into service (Using Omni7 - the original OmniLog differs slightly):

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 SHT15, Digital humidity sensor
		Long-term stability, Fully calibrated by Sensirion
		Sensor response time is 4 seconds, Range 0%~100%
		Actual response time of logger is slower than this because of the
		60 micron Stainless Steel filter used to protect the sensor
	Accuracy	±2.0%RH from 10% to 90%
		±4%RH from 0% to 10% and 90% to 100%
	Resolution	0.1%RH
	Filter	60 micron Stainless Steel
Temperature:	Sensor Type	Thermister
	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	522,240 samples logging Relative Humidity only
		362 days with 1 min logging interval (Relative Humidity only)
		4.9 years with 5 min logging interval (Relative Humidity only)
		174,080 samples logging Relative Humidity Dew Point and Temperature
	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/OmniLog Software
	Start modes	Start immediately
		Start on date/time
		Start on condition (eg Humidity < 30%RH)
	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 - Average reading
		-Maximum 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/OmniLog software
	Download time	9 minutes 30 seconds for Full Logger
	Case material	304 Stainless tube
	Screw on end cap	Plated brass
	Weight	143g
	Size	20mm diameter X 170mm long

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

Accuracy Limits for Relative Humidity:
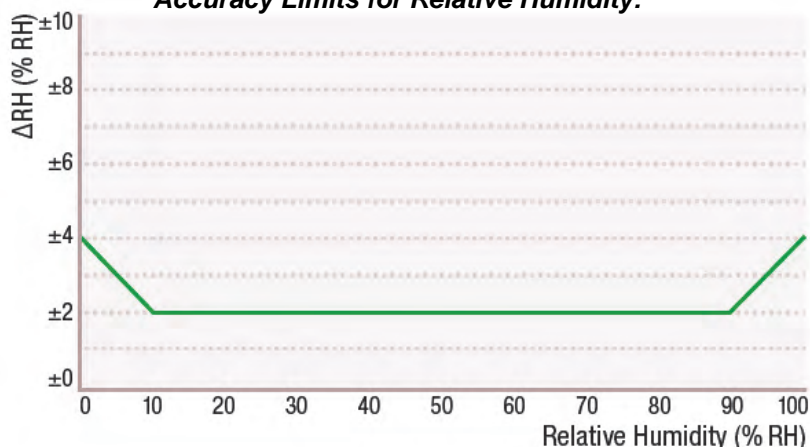
HT-HR Maintenance:
Maintenance needed for the HT-HR depends on the environment. Often no maintenance is necessary.
However, it is necessary to keep the filter clean. If the filter is dirty then remove it and soak it in meths, then use compressed air to ensure it is completely dry before reattaching to the logger.

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