

Logs temperature, humidity, and dew point

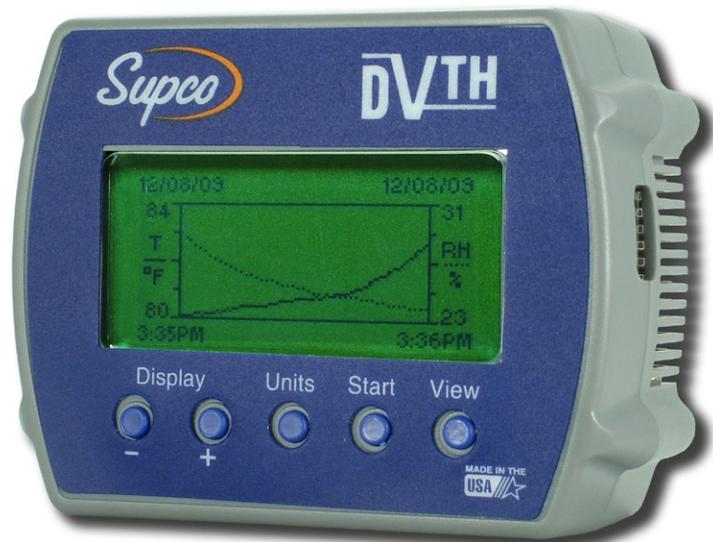
Built-in real time text and graphical display

Stand-alone or PC-connected operation

Deep sample memory

Battery-powered

Built-in USB port



Features

Versatile with many applications

Refrigerators; freezers; wine storage; medical facilities; greenhouses; florists; museums; document storage/archive facilities; laboratories; cigar humidors; many more.

Wide measurement range

Temperature operating range is -10 to 65°C (15 to 150°F); RH range is 0 to 99% non-condensing.

Built-in text and graphic display

Allows instant visual confirmation of current temperature, dew point, and RH, along with real time and historical trends and excursions.

On-board sample memory

Allows all data to be recorded over extended periods for later recall through the built-in display or by PC download.

Extended sampling intervals

Programmable sampling intervals range from one second to 18 hours in one second increments for very fine and flexible time resolution.

Programmable alarm thresholds

Over/under alarms may be enabled for both temperature and RH to flag out-of-range conditions.

NIST traceable option

The DVTH can be provided with an NIST traceable certificate to satisfy contractual or regulatory requirements.

Delayed start selection

Allows the DVTH to initiate logging on its own at a specific date and time.

Built-in real time clock

All acquired data is time and date stamped.

Tamper-proof recordings

Unique serial number and session counter combine to ensure tamper-proof data recordings that satisfy the most demanding requirements.

Battery operation

Low-power operation runs on three internal lithium or alkaline AA cells (included) for at least one year depending upon usage.

Automatic shutdown

When not configured to actively log data the DVTH will shut itself down after one hour to conserve battery power.

Memory rollover selection

Configure the DVTH to either stop recording when the memory is full, or rollover to overwrite the earliest recorded data.

Field-adjustable calibration

Allows you to calibrate the DVTH yourself, or we can recalibrate the instrument for a nominal charge.

Integrated USB port

Connect the DVTH to any Windows-based PC for configuration, calibration, or data download.

PC software

Provided Windows-based software allows DVTH configuration, calibration, download, and data graphical review and analysis.

Microsoft Excel export

Built-in data file translator allows data export to Microsoft Excel for further analysis and report generation.

The DataView DVTH is a self-contained, precision data logger for recording the temperature and relative humidity of the surrounding environment. The DVTH can store up to 43,344 temperature samples, or up to 21,672 of both temperature and relative humidity samples, and it also computes and displays Dew Point Temperature in real time. The data logger's sampling interval may be set from one second to 18 hours in one-second increments. A major feature of the DVTH is a built-in display that provides a real time graphic plot of temperature and RH that even allows you to scroll through the recording history without interrupting the current recording session. Two text summary screens may also be enabled. One displays the current RH, temperature, and dew point in large, easy-to-read block characters. A second displays logging information such as the sampling rate, the number of samples recorded, the length of the current recording and the amount of time left for recording. The DVTH data logger can be provided with a NIST calibration certificate, and also features a tamper-proof design to make it a solution for highly regulated applications.

DVTH Data Logger Close-up



Display -: Use this button to decrease the screen contrast when in Sample and Summary screens. When in the Graph screen this button shifts the graph to the left, allowing you to scan backward in time to earlier-acquired data.

Units: Use this button to change the displayed units between °F and °C.

Display +: Use this button to increase the screen contrast when in Sample and Summary screens. When in the Graph screen this button shifts the graph to the right, allowing you to scan toward more recently acquired data.

View: Use this button to toggle between the Graph, Summary, and Sample screens.

Start: If the logger has been setup to start on button press, press and hold the Start button to begin logging. In the Graph screen, pressing and holding this button returns the view to the last sample logged.



Field-replaceable batteries*: The DVTH uses three standard AA cells for power. Use alkaline batteries for normal term measurements or lithium batteries when very long-term measurements are required.

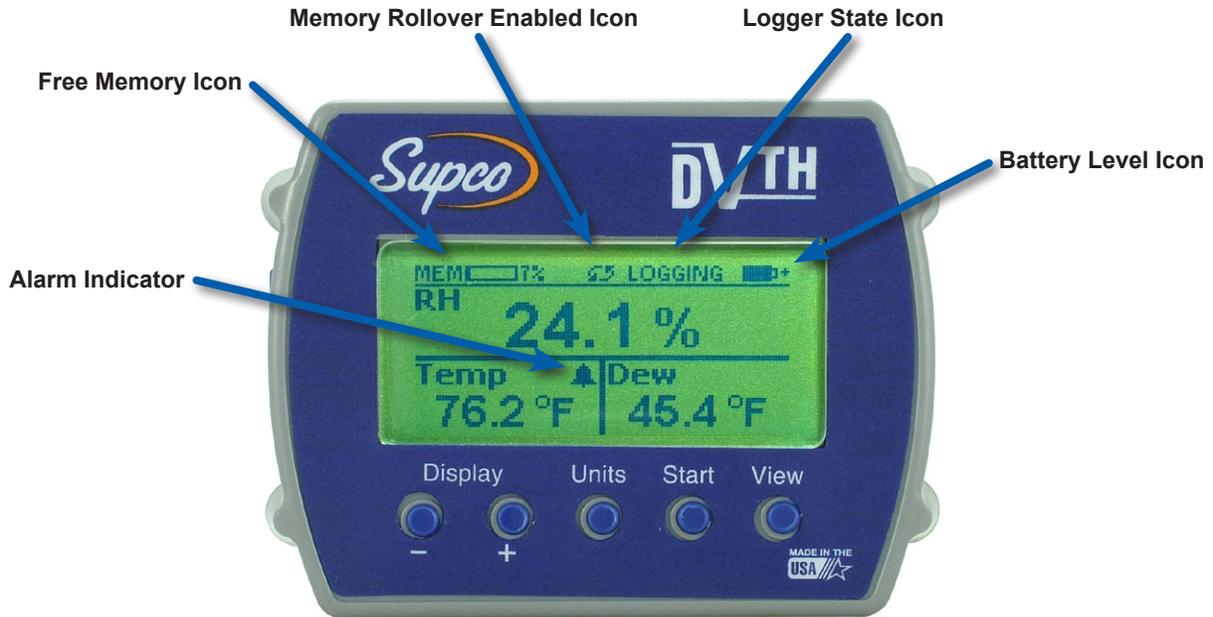
* The DVTH data logger consumes mere milliwatts of power in all modes:

| | |
|--------------------------|---|
| Maximum during recording | 2.7 mW |
| Standby | 1.4 mW |
| Power down | 5 μ W |
| Battery life | 1 year continuous use; 2 years average use. |

DVTH Screens Close-up

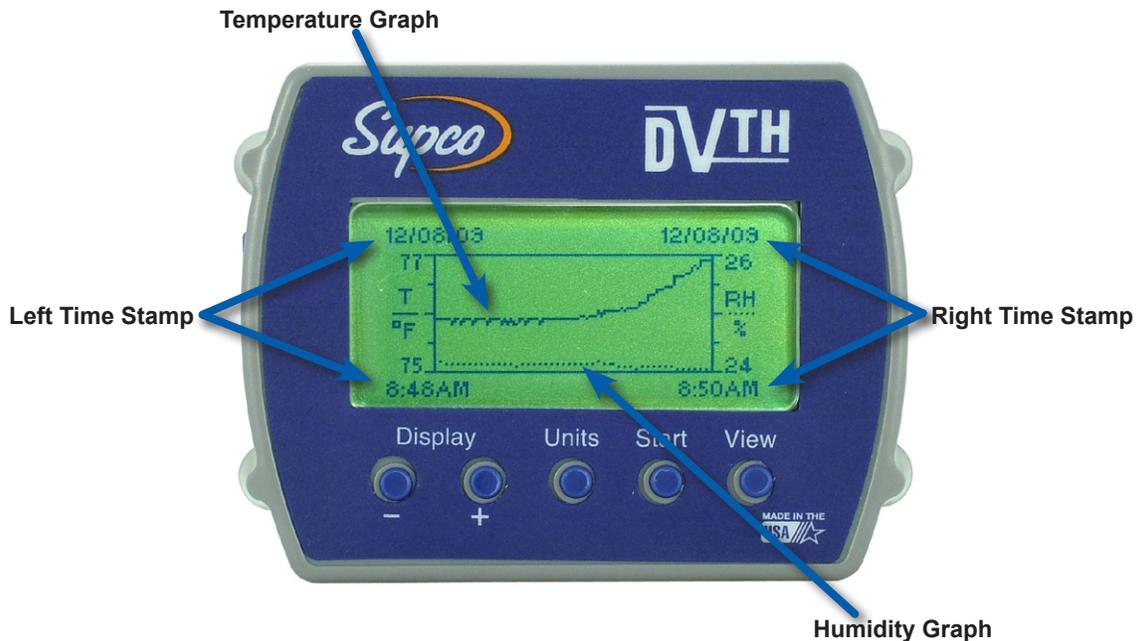
The Sample Screen

Displays the current Relative Humidity, Temperature and Dew Point measurements. The measurements are updated every two seconds, independent of the device sample rate.



The Graph Screen

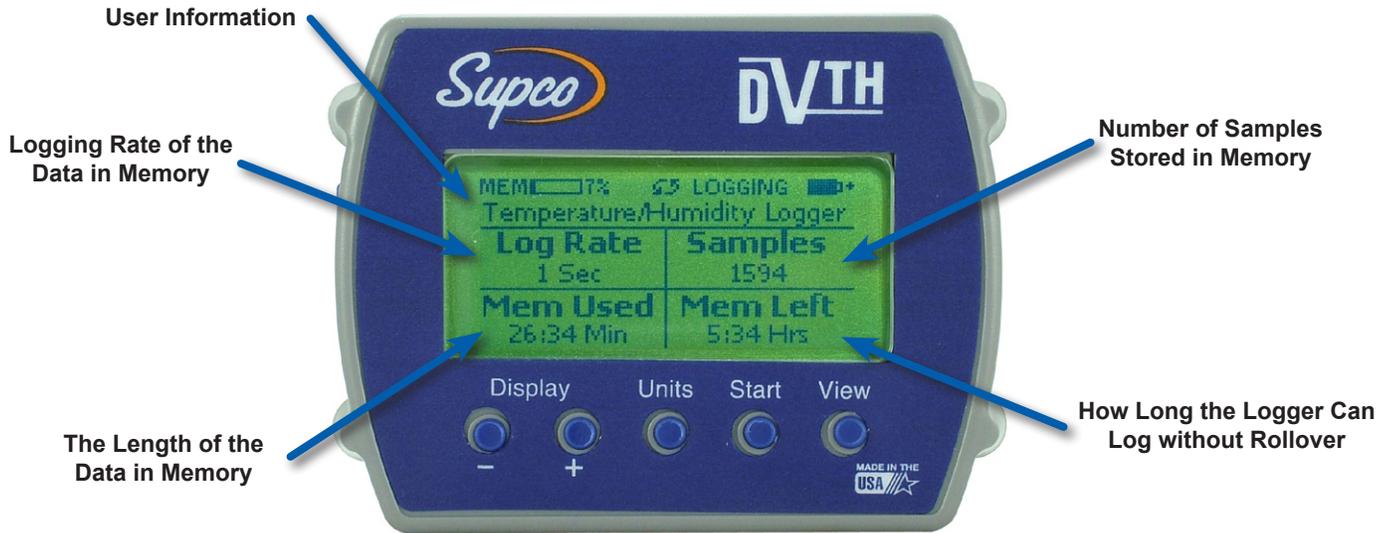
Displays logged data graphically to show temperature and relative humidity trends. The Graph Screen may be panned in a positive or negative time direction using the (+) and (-) buttons while recording to review historical temperature and humidity data.



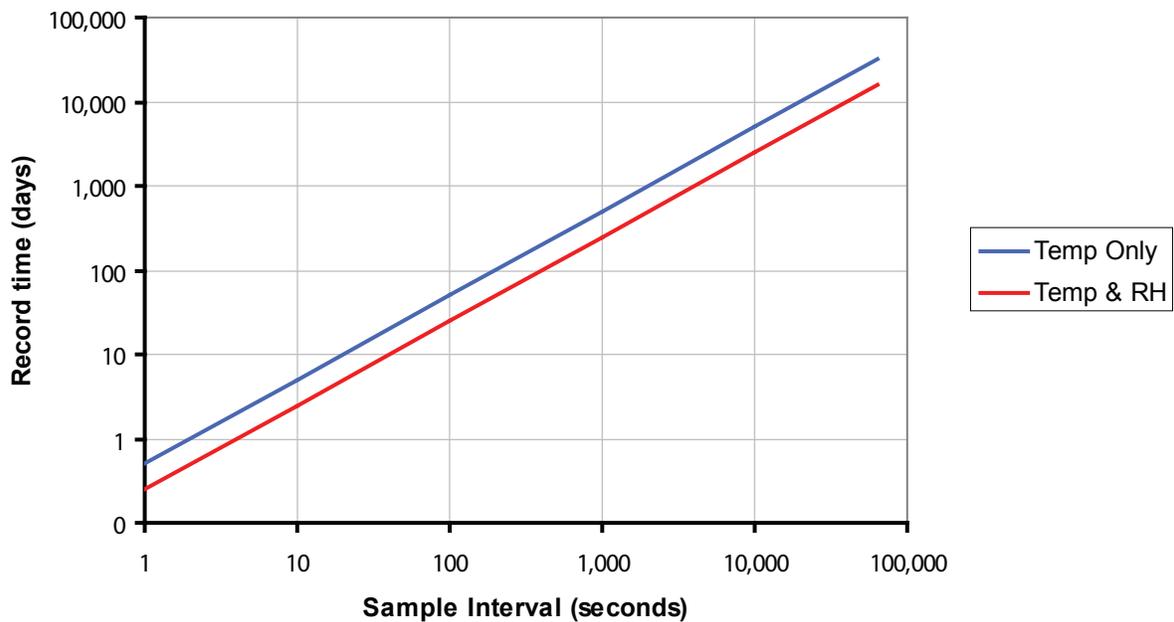
DVTH Screens Close-up (cont.)

The Summary Screen

Displays the current data logger configuration and progress. Sample intervals can range from once per second to once every 18 hours to yield exceptionally long record times (see graph).

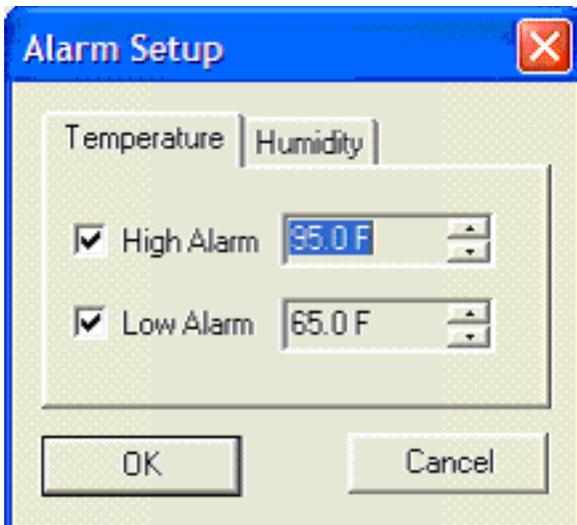
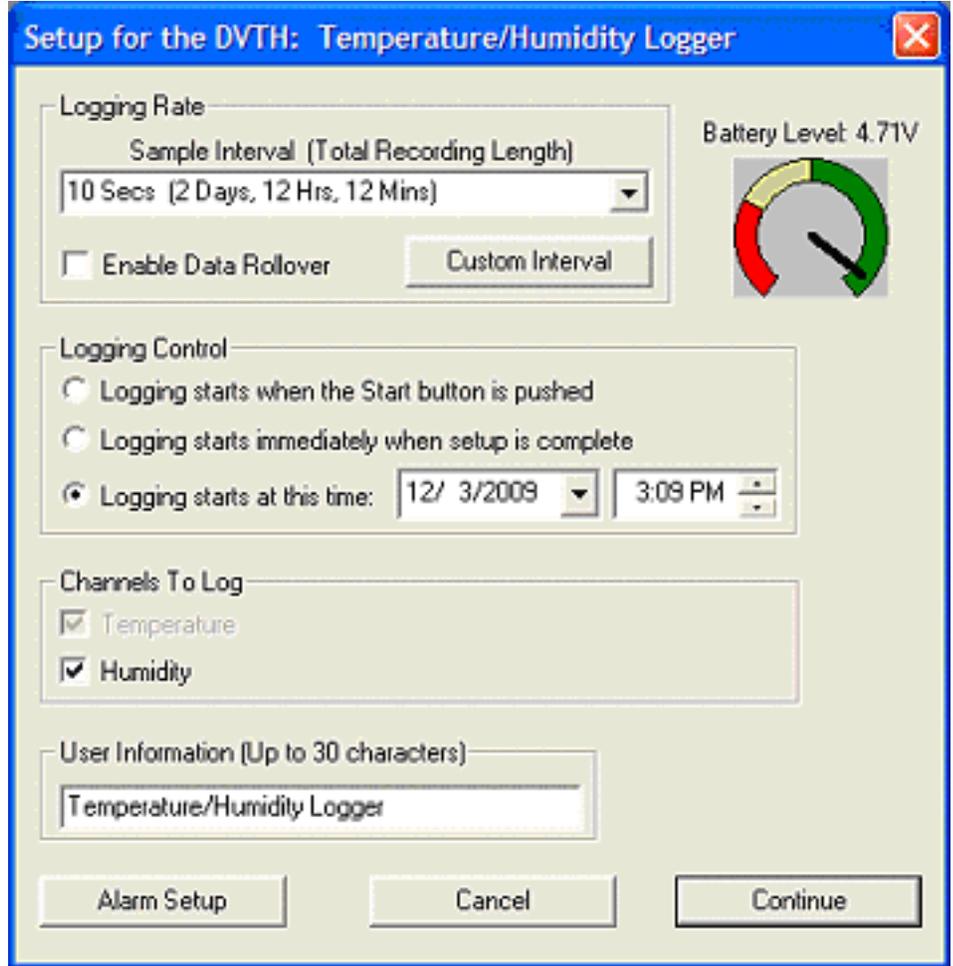


DVTH Data Logger Record Time vs. Sample Interval



General Setup

- Sample Interval (Total Recording Length): Select the sample interval from a predefined list of intervals.
- Custom Interval: Click to add your own interval to the sample interval list.
- Enable Data Rollover: Check this box to have the logger continuously record data, overwriting the earliest data when the end of memory is reached. When this box is not checked, logging stops when the logger memory is full.
- Logging Control: Logging can start in three ways depending on the selection you make:
- Channels to Log: Choose to log temperature only, or temperature and humidity
- User Information: Enter any text you like in this box. This field is used to identify the logger to the user. You can enter descriptive location, serial number, etc.
- Alarm Setup: Click this button to open the Alarm Setup Window.

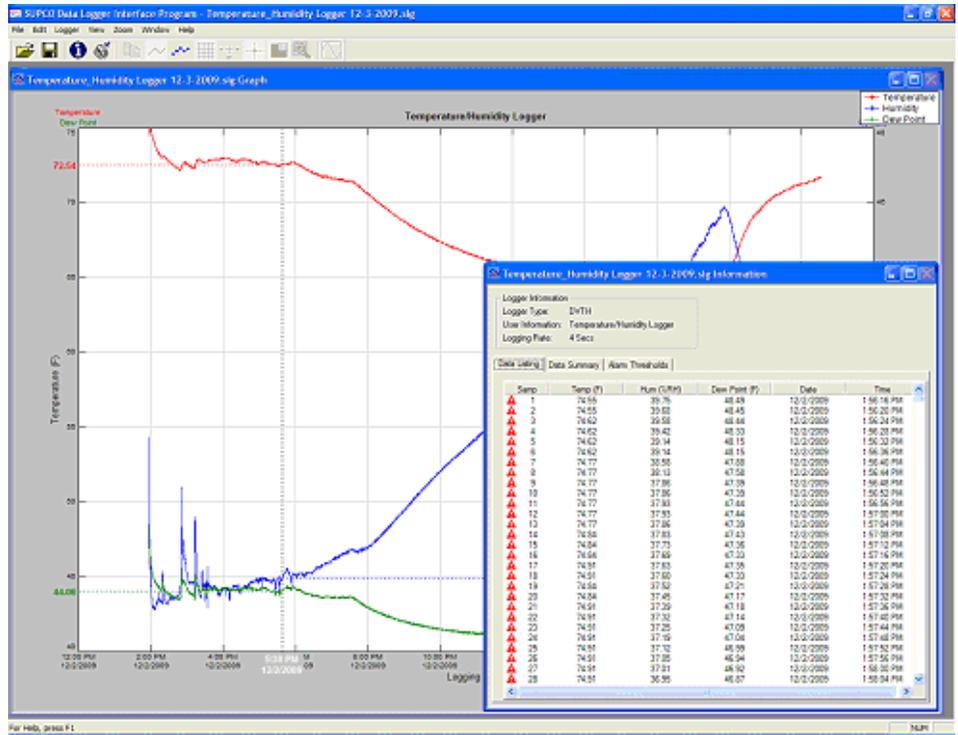


Alarm Setup

Alarms are used to indicate data excursions beyond definable limits. The DVTH data logger Sample Screen display indicates the alarm status visually.

Data Review and Analysis

After data is downloaded from the DVTH data logger to the provided PC-based software it may be graphically plotted versus date and time of occurrence, and listed in a data summary along with alarm events. It can even be filtered based definable upon excursion limits and time and date of acquisition.



The screenshot shows Microsoft Excel with a file named 'Temp & RH.csv'. The spreadsheet contains the following data:

| Sample | Temp (F) | Hum (%RH) | Dew Point | Date Time |
|--------|----------|-----------|-----------|-----------|
| 1 | 74.55 | 39.75 | 48.49 | 56:16.0 |
| 2 | 74.55 | 39.68 | 48.45 | 56:20.0 |
| 3 | 74.62 | 39.58 | 48.44 | 56:24.0 |
| 4 | 74.62 | 39.42 | 48.33 | 56:28.0 |
| 5 | 74.62 | 39.14 | 48.15 | 56:32.0 |
| 6 | 74.62 | 39.14 | 48.15 | 56:36.0 |
| 7 | 74.77 | 38.58 | 47.88 | 56:40.0 |
| 8 | 74.77 | 38.13 | 47.58 | 56:44.0 |
| 9 | 74.77 | 37.86 | 47.39 | 56:48.0 |
| 10 | 74.77 | 37.86 | 47.39 | 56:52.0 |
| 11 | 74.77 | 37.93 | 47.44 | 56:56.0 |
| 12 | 74.77 | 37.93 | 47.44 | 57:00.0 |
| 13 | 74.77 | 37.86 | 47.39 | 57:04.0 |
| 14 | 74.84 | 37.83 | 47.43 | 57:08.0 |
| 15 | 74.84 | 37.73 | 47.36 | 57:12.0 |
| 16 | 74.84 | 37.69 | 47.33 | 57:16.0 |
| 17 | 74.91 | 37.63 | 47.35 | 57:20.0 |
| 18 | 74.91 | 37.6 | 47.33 | 57:24.0 |
| 19 | 74.84 | 37.52 | 47.21 | 57:28.0 |
| 20 | 74.84 | 37.45 | 47.17 | 57:32.0 |
| 21 | 74.91 | 37.39 | 47.18 | 57:36.0 |

Export to Microsoft Excel®

Of course, few analyses are complete without a thorough audit using Microsoft Excel, and DVTH data logger software exports files that are compatible with this popular application.

DVTH Data Logger Specifications

| | |
|--|---|
| <p>Text Display: Displays real time temperature, humidity and dew point. Displays logging summary, sample rate, memory used and memory left.</p> <p>Graph Display: Shows measurement trends graphically. Graph can be scrolled through the entire logged data.</p> <p>Sample Capacity: 43,344 points for temperature only. 21,672 points for temperature, humidity and dew point.</p> <p>Programmable Sampling Interval: User selectable from 1 second to 18 hours, in 1-second increments.</p> <p>Alarms: Visual over and under alarm indicator for temperature and humidity. Dew point alarms are not available.</p> <p>Calibration: User single point offset calibration is available through software for both temperature and humidity. Calibration is password protected.</p> <p>Operating Temperature: 15°F to 150°F (-10°C to 65°C)</p> <p>Storage Temperature: -5°F to 160°F (-20°C to 70°C)</p> <p>Time Accuracy: ±100ppm @75°F</p> | <p>Relative Humidity Range: 0% to 99%RH, non-condensing.</p> <p>Relative Humidity Accuracy: ±2%RH, from 10% to 90% RH</p> <p>Relative Humidity Resolution: 0.01%RH</p> <p>Temperature Accuracy: ±1°F (0.5°C)</p> <p>Temperature Resolution: 0.01°F or °C</p> <p>Dimensions: 4" × 3.05" × 1.5" (10.2cm × 7.7cm × 3.8cm)</p> <p>PC Interface: USB port. USB cable is included</p> <p>Weight: 7.0 oz (200g)</p> <p>Power Source: Three AA batteries (included)</p> <p>Power consumption: Maximum during recording: 2.7 mW Standby: 1.4 mW Power down: 5.0 μW</p> <p>Battery Life: 1 year continuous use, 2 years average use. The logger automatically turns itself Off after 1 hour, when not logging. Turn On by pressing any button.</p> |
|--|---|

Software Specifications

| | |
|---|---|
| <p>Data Security: Unique factory set logger ID. Recording session counter. Password protected calibration.</p> <p>Operating System Compatibility: Windows 98SE, Windows ME, Windows 2000, Windows XP and above. Not compatible with Windows NT or Windows 95.</p> <p>Minimum System Requirements: 5MB of free disk space, 800 × 600 screen resolution, 1 free USB port.</p> <p>Recording Start: On button press, immediate after setup, or at a user specified date and time.</p> <p>Recording Mode: Stop on memory full, or continuous recording with memory rollover</p> | <p>Real Time Status: Visual indication through the status LED. Software real time status.</p> <p>User Calibration: Password protected calibration for each channel.</p> <p>User Information: Up to 30 characters</p> <p>Logger Channels: User selectable. Disabling channels increases the storage capacity of the other channels.</p> <p>Units: US and Metric</p> <p>Data Format: Exportable to text or Excel files.</p> |
|---|---|

Ordering Guide

| Description | Order No. | Description | Order No. |
|--|-----------|---|-----------|
| DataView Temperature and Humidity (DVTH) data logger Includes USB cable, three AA cell batteries, PC software on CD. | DVTH | NIST traceable calibration certificate Must be purchased at the same time as the DVTH logger. | NIST-DVTH |



241 Springside Drive
Akron, Ohio 44333
Phone: 330-668-1444
Fax: 330-666-5434

Data Acquisition Product Links

(click on text to jump to page)

[Data Acquisition](#) | [Data Logger](#) | [Chart Recorder](#) | [Thermocouple](#) | [Oscilloscope](#)