

DLP-TH1b

LEAD-FREE

USB-Based Temperature & Humidity Sensor

The DLP-TH1 is a USB-based digital temperature and humidity sensor. Software provided with the DLP-TH1 sensor displays temperature, humidity, and dew-point data in both Fahrenheit and Celsius, plots graphically to the screen, and logs to a data file on the hard drive. The software will also send an email to user-specified recipients if the temperature or humidity exceeds specified setpoints.

The DLP-TH1 sensor uses a fully calibrated capacitive polymer-sensing element for relative humidity and a bandgap temperature sensor providing excellent long-term stability. Calibration coefficients for the sensors are permanently stored in digital memory within the DLP-TH1 module so that the module is fully interchangeable with any other DLP-TH1 module.

The most recent versions of the application software for the DLP-TH1 are available as a free download from www.dlpdesign.com/usb/th1.shtml.

No external power source is required--all power (30mA max @ 5V) is taken from the USB port via the provided 6-foot USB cable.

QUICK-START GUIDE

This guide requires the use of a Windows 2000/XP/VISTA PC that is equipped with at least one available USB 1.1- or 2.0-compatible port.

1. **If the DLP-TH1 sensor is connected to your PC, disconnect it at this time.**

2. **Download the USB drivers from the bottom of the page at www.dlpdesign.com. Unzip and save these driver files to a folder on your hard drive.**

3. **Download the DLP-TH1 Windows software from www.dlpdesign.com/usb/th1.shtml.**

4. **Connect the DLP-TH1 sensor to your PC via the provided USB cable. This action initiates the loading of the USB drivers. When prompted, select the folder specified in step 2 above. Windows will then complete the installation of the device drivers for the DLP-TH1. The next time the DLP-TH1 module is attached, the PC will immediately load the correct drivers without any prompting. Reboot the PC if prompted to do so.**

At this point, the DLP-TH1 is ready for use. Run the application program software acquired in step 2 above and "Open" the sensor module to start acquiring temperature and humidity data.

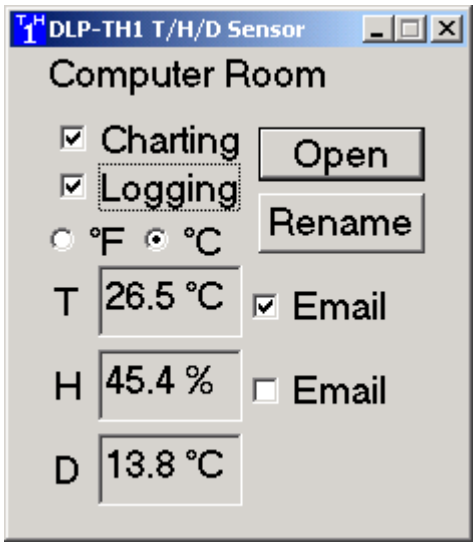
SPECIFICATIONS

Temperature	**°C**	**°F**
Range	**0 to 100°C**	**32 to 212°F**
Accuracy	**±2.0°C (-30 to 80°C)**	**±3.6°F (-22°F to 176°F)**
Resolution	**0.01°C**	**0.02°F**
Repeatability	**±0.1°C**	**±0.2°F**
Response Time	**5-30 Sec.**	**5-30 Sec.**

Humidity	
Range	**0-100%RH**
Accuracy	**±3%RH (20 to 80%RH), ±5%RH (0 to 100%RH)**
Resolution	**0.03%RH**
Repeatability	**±0.1%RH**
Response Time	**4 Sec.**

BASIC OPERATION

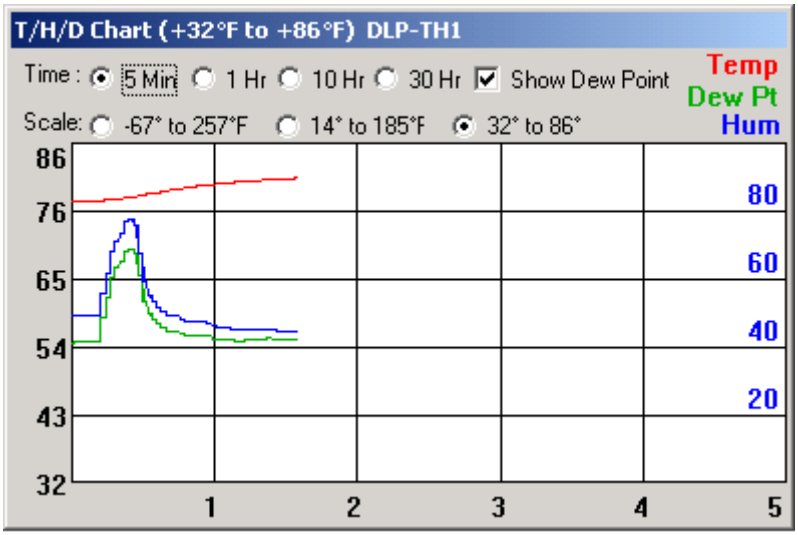
The DLP-TH1 application software is compatible with 2000/XP/VISTA versions of the Windows operating system.



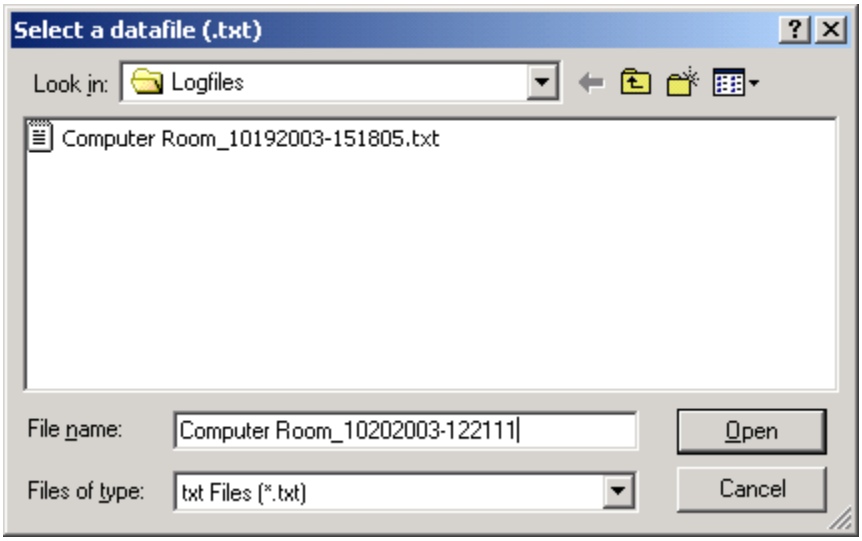
Since multiple DLP-TH1 units can be connected to the PC at the same time, when the program is run, the first required step is to select the sensor that is to be monitored. When the Open button is clicked, a selection window will appear that presents a list of all sensors connected to the PC. To select a specific sensor, simply click on the description string for the desired sensor and then click on OK.

Each sensor can be given a specific name (Computer Room, Baby Room, etc.) using the Rename function. The sensor's name is written to the non-volatile memory in the sensor itself such that the name stays with the sensor should it be moved to a different PC. Click on Rename and enter a new name for the sensor. Note that the new name will not take effect until the sensor is disconnected and reconnected to the PC as the description strings for a USB device are only read at power-up.

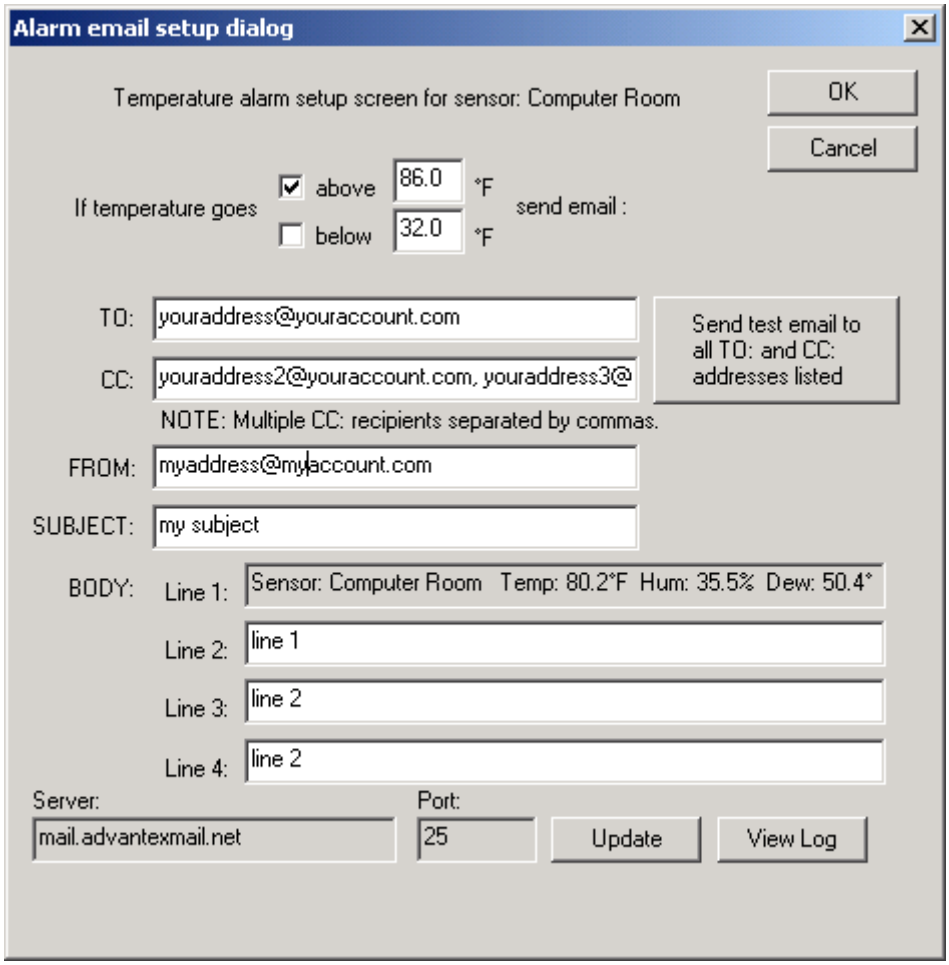
To enable charting, simply click on the check box for Charting. Different time and temperature scales can be selected to suit user needs. Additionally, the chart can be resized with the mouse to show more detailed time or temperature resolution.



To enable logging, simply click on the check-box for Logging. A dialog window will appear allowing the selection of a file name for the log file as shown below. A filename is automatically created based on the sensor's name, date, and time. A different filename can be entered if desired.



To enable email notification of the temperature or humidity alarms, simply click on the check box for Charting in the main window. The following setup window will appear:

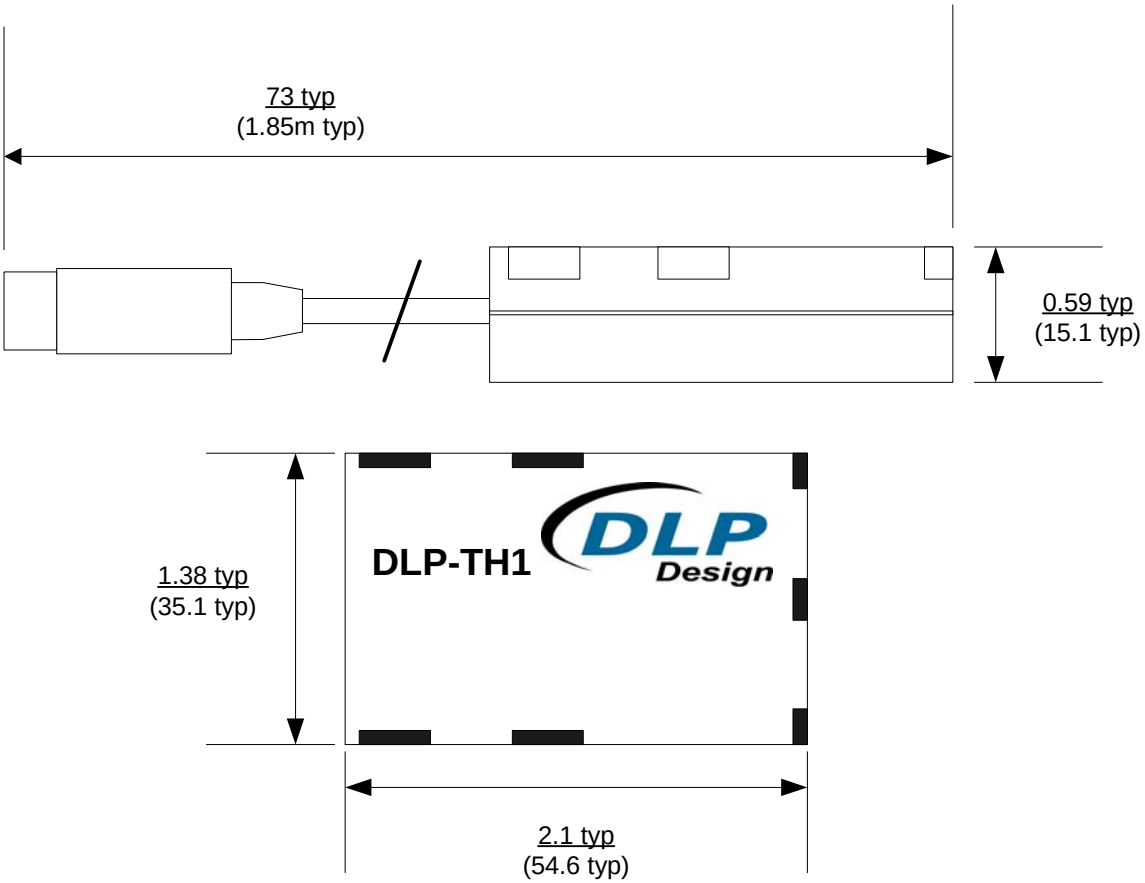


NOTE: Valid email addresses must be used in every box that takes an email address.

The Send test email button will help to verify that the email addresses and server name entered are working as expected. The View Log button will allow you to review the responses from the email service provider as each email is sent.

Only one email will be sent if a temperature or humidity setpoint is exceeded. The ability to send an email will be reactivated if the temperature of humidity falls below the setpoint by more than 1 degree or 1% RH.

MECHANICAL DIMENSIONS IN INCHES (MM)



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This product or any variant of it is not intended for use in any medical appliance, device, or system in which the failure of the product might reasonably be expected to result in personal injury.

This document provides preliminary information that may be subject to change without notice.

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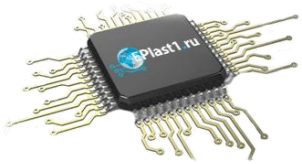
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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