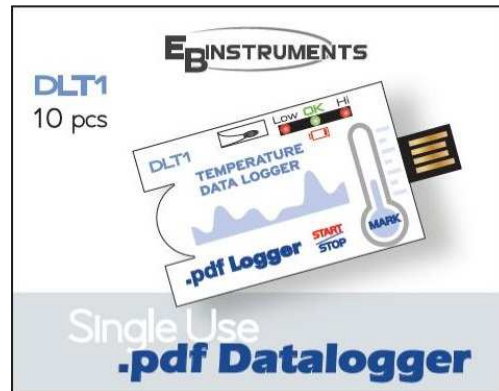


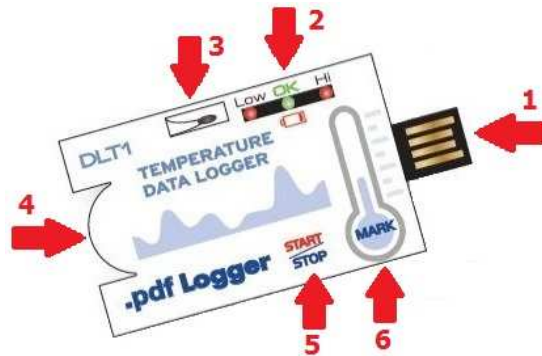
# Single use temperature datalogger DLT1



DLT1 is an easy-to-use, waterproof (IP65), and portable USB Temperature Datalogger. The DLT1 uses a USB 2.0 connector that can be plugged into a PC for user-customized datalogger setup. The DLT1 can then be placed in an area where temperature is to be monitored. Once placed, the user can press the START button to begin recording. When completed, the DLT1 can then be plugged back into the PC where a PDF report of logged temperature readings can be generated (Adobe Reader® software required).

Ten (10) one-time-use dataloggers are provided; each can log 8192 temperature readings. This device is shipped fully tested and calibrated.

## Datalogger Description



1. USB 2.0 'Plug & Play' connector. USB driver is not required.

2. LED indicator: Low/High: Red LED blinks when measurement exceeds an alarm threshold

Green OK: Green LED blinks three times every 5 seconds when logger is in standby mode. When logging is started, the green LED blinks every 2 seconds

Red Low Battery: Red LED blinks every 2 seconds when power is too low to provide accurate logging

3. NTC thermistor provides accurate temperature measurements

4. Pre-installed CR2032 battery

5. START/STOP button: After the logger is programmed, press and hold the 'START' button for 2 seconds to begin logging. To stop, press and hold the 'STOP' button for 2 seconds.

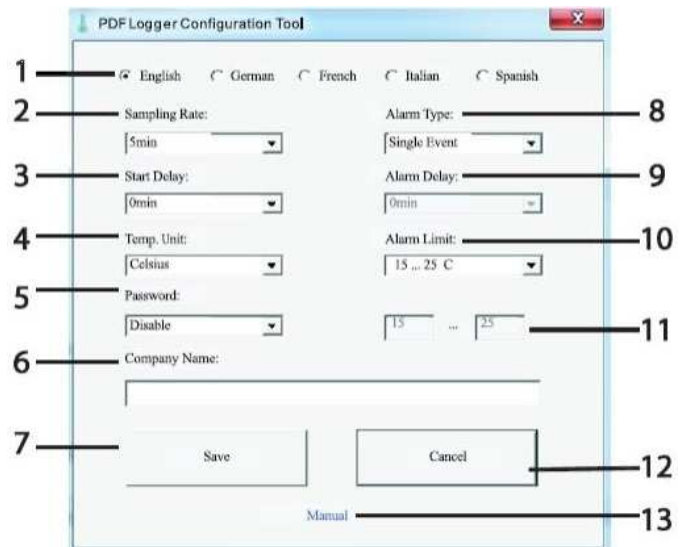
6. MARK button: This button is used to manually place a 'bookmark' in the datalog record. These time-stamped marks appear in the PDF report that can be generated on a PC.

Open the bag and remove the unit for programming. After programming, return the unit to the plastic bag and seal the bag before logging.

## Datalogger Configuration Screen Description

Connect the DLT1 to the PC via the USB port to open this screen. Refer to the Operation Section below for details on the items shown on this Screen:

1. Language selection
2. Logger sampling rate
3. Logger start delay time
4. Temperature unit selection
5. Password mode selection
6. User's company name
7. Confirm settings
8. Select alarm type
9. Set alarm delay time
10. Select high and low alarm thresholds
11. Alarm range (for cumulative alarm type)
12. Cancel programming
13. Open user manual PDF



## Operation

### NOTES:

1. Adobe Reader® software is required.
2. Please program the logger and generate the PDF report at room temperature only.
3. The programming executable files are identified by the \*.exe format.

## Configuring the data logger

At any time before logging is started, the logger can be programmed and re-programmed.

1. Connect the data logger to a PC via the USB port.
2. The Logger status LEDs blink twice.
3. The software window will appear on the PC.
4. Click on 'Open Folder' to view the available files.
5. Open the file "PDF Logger Configuration Tool.exe".
6. The default language is English; select German, French, Italian, Spanish, or Portuguese as desired. The generated PDF report format will match the language selected.
7. To review the instruction manual, click 'Manual' to link to the User Manual PDF file.
8. The Programmable Parameters are defined below:

### • User Company Name

Input a company name that will be printed on the PDF report (20 characters max.).

### • Sampling rate

Select the datalogging sampling rate (interval) from 30 seconds to 2 hours.

### • Start delay

Select a period of time that must elapse before recording can begin after the START button is pressed (select from 0 min to 2 hours).

### • Alarm delay

The preset alarm delay time for **single alarm type** is always zero.

The adjustable alarm delay time for **cumulative alarm type** is 5 minutes to 2 hours.

### • Alarm types

Regardless of what alarm type is selected, the LED will continue flashing (once it is triggered) even when the measured value later returns to the normal range.

Single Alarm: The LED alarm is triggered immediately when the measured value exceeds the alarm threshold.

Cumulative: The LED alarm is not triggered when the measured value exceeds the alarm threshold. The LED alarm is triggered only when the average value, during the alarm delay time, exceeds the alarm threshold.

Disable: No LED alarm function during the logging process

### • Alarm value

Select the alarm threshold value. For example if 2~8 oC is selected: When the measured value falls below 2oC or exceeds 8 oC the LED indicator will trigger.

### • Unit

Select the desired temperature unit for the PDF report (Celsius or Fahrenheit).

### • Time Zone

The DLT1 Logger auto synchronizes the time zone with a PC when 'Save' is selected to confirm a setting. Note: Time zone changes occurring during logging are not taken into account.

## • Password

The password security function is OFF by default. The password function can be enabled and a 16 alphanumeric character (max.) password can be used to prevent unauthorized re-programming. Once all the programming is complete, press 'Save' to confirm the settings. If desired, close the setup window and remove the logger from the PC USB port.

### The default values for above parameters:

Sampling rate 5 minutes  
Start delay 0 minutes  
Alarm delay 0 minutes  
Temp. Unit °C  
Alarm Limits 15÷25°C  
Alarm Type Single Event  
Language English  
Password Disabled  
Company Name Blank

## Start Datalogging

1. When the DLT1 is successfully programmed, the green LED blinks three times every 5 seconds to indicate the logger is in standby mode
2. Place the unit into the supplied plastic bag and seal the zipped bag well; then press and hold the 'START' button for two seconds to start the datalogger
3. The Red LEDs will flash three times to indicate that the datalogger is activate
4. During the datalogging, the green LED will blink every two seconds. If battery power is too low to maintain normal operation, the red LED will blink
5. To place a bookmark manually during datalogging, press the 'MARK' button. Up to eight (8) bookmarks can be placed in a datalog session.

## Download Logged Data (PDF Report)

Press and hold the 'STOP' button for two seconds to stop the datalogger (the logger automatically stops when the log reaches 8192 readings). Alternatively, plug the logger directly into the PC USB port to stop the logging and to generate a PDF report. After a few seconds the PDF report will be generated. The PDF report includes reading data and trend graph. The status LEDs will blink while the logger is generating the PDF report.

*NOTE: Once the Datalogger is Started and then Stopped, the unit cannot be reused. A new unit would have to be used to make new recordings. Ten (10) loggers are supplied in the package.*

## Technical specifications

Temperature Sensor NTC Thermistor  
Temperate range -30÷70°C (-22÷158°F)  
Temperature resolution 0.1°C/°F  
Temperature Accuracy ±0.5°C (0.9°F)  
Logger type Single Use  
Datalogger capacity 8192 readings  
Sampling interval 30 seconds, 5, 10, 30, 60, 90, 120 minutes  
Start delay 0, 5, 30, 45, 60, 90, 120 minutes  
Alarm ranges -20÷ -10°C, -10÷0°C, 2÷8°C, 0÷15°C, 0÷25°C, 15÷25°C, etc.  
Alarm delay 0, 5, 30, 45, 60, 90, 120 minutes  
Alarm types Single, Cumulative, and Disable  
Operation Buttons Two (2) Buttons: Start/Stop & Mark  
LED indicator Record, Low Battery, and High /Low Alarm  
Number of supplied Loggers Ten (10) single-use loggers supplied in the package  
Operating temperature -30÷70°C (-22÷158°F) for logging;  
Ensure room temperature when connected to PC  
Operating Relative Humidity < 80% RH  
Dimensions 80 (L) x 43 (W) x 2.5 (D) mm (3.2 x 1.7 x 0.1")  
Weight 10g (0.4 oz.)  
Battery One (1) 3.0V CR2032 battery (installed before shipment)  
Battery life One (1) year  
Safety CE; Waterproof IP-65