



PR0455

# USB Temperature Logger User Guide

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## Application Installation

Before using your USB Temperature Logger it has to be programmed using the RDM PC Device Explorer application software. Follow the instructions below to load the application on to a PC. This software is compatible with Windows XP, Vista and Windows 7 (32bit and 64bit operating systems).

The application software can be downloaded from [www.resourcedm.com](http://www.resourcedm.com). From the home page click on the "Download Section" link found in the "Support & Documentation" area. Select "Shuttle – USB Temperature Logger" from the list of downloads.

You will be asked to register by providing an email address and password, the download procedure will follow after registration. If you have registered previously enter your credentials and continue with the download.

Run or Save the file USBLogger1.6\_Setup.exe. If you save the file, once it has downloaded double-click the file to install the application. *(This file name may change as new versions are released)*

A Windows Security Warning pop-up box may appear



Click "Run" to continue the application set-up.

Select a language from the drop-down list. Note this selection can't be changed once the software is installed.



Click "OK" to continue



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**Note.** This and the following screens may vary according to what operating system and version is running on your PC.

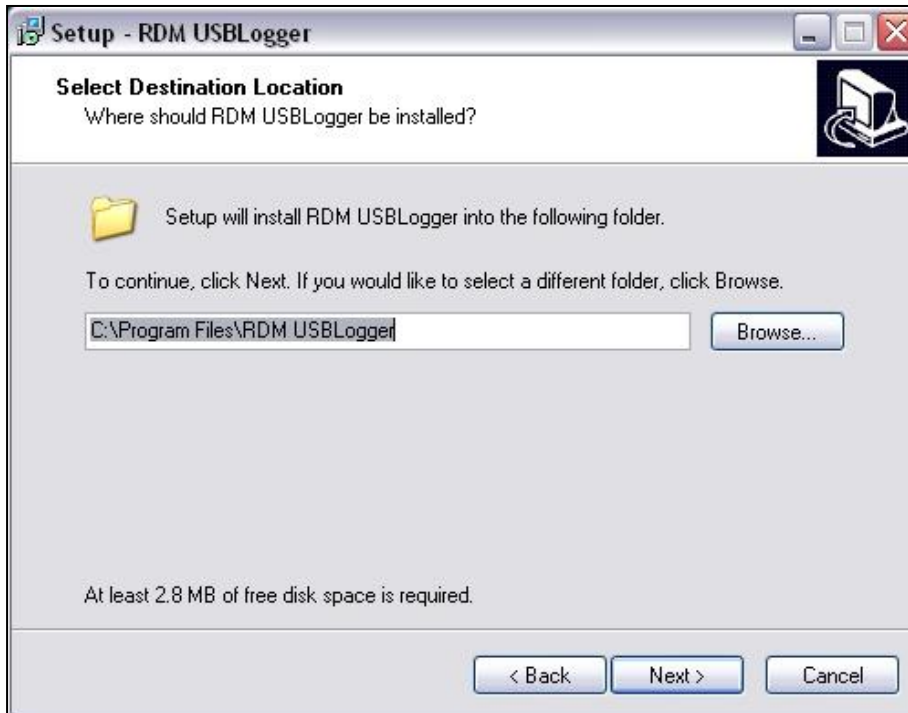


1. Click "Next"



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2. Select "I accept the agreement" and click "Next"

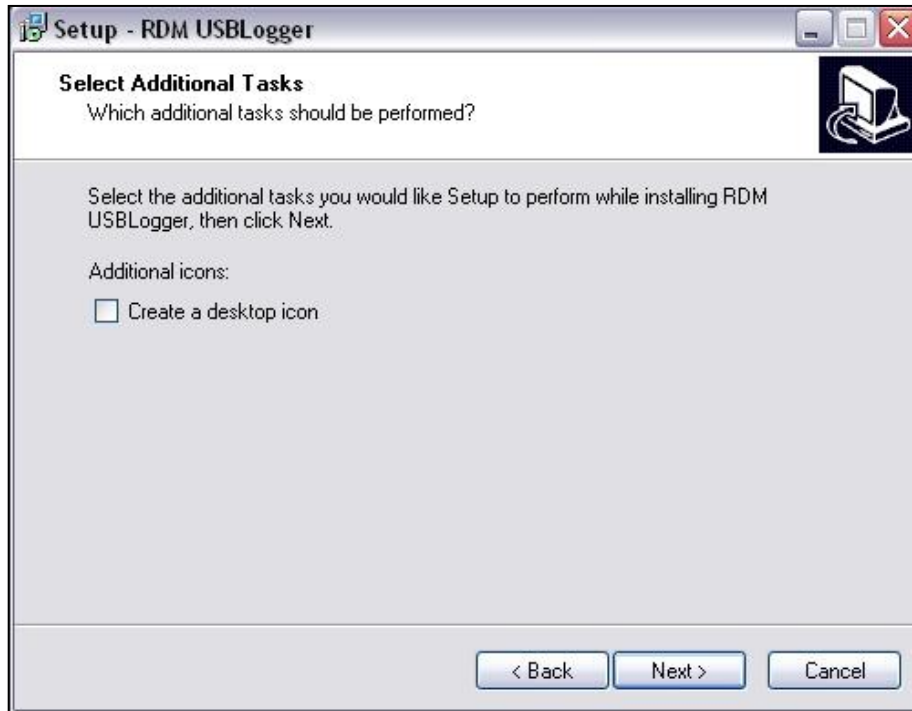


3. Use the default destination folder or browse to a folder of your choice, then click "Next"

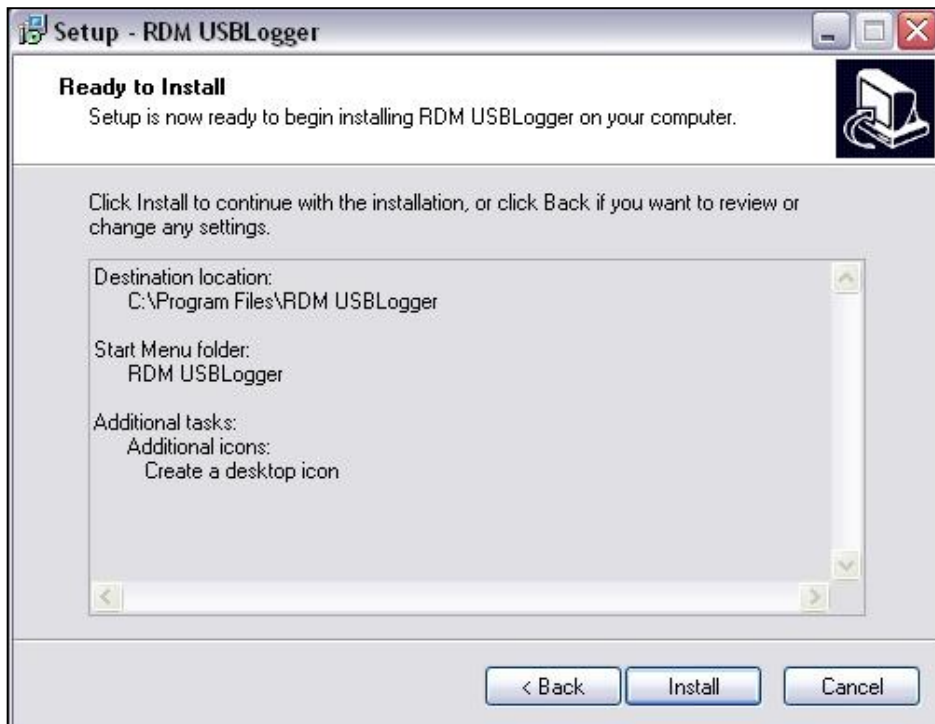


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4. Use the default destination folder or browse to a folder of your choice, then click "Next"



5. If a Desktop icon is required mark the tick box and click "Next" to proceed.



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6. Confirm the selections made and click "Install" to start the installation process.



7. If the installation is successful the above screen is shown. To complete the installation click "Finish".

The application is now running and the USB Logger icon will appear in the "System Tray" area



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**Driver Installation**

When a USB logger is inserted into a PC/Laptop, running the RDM PC Device Explorer application software, for the first time you may be prompted with the following screen.

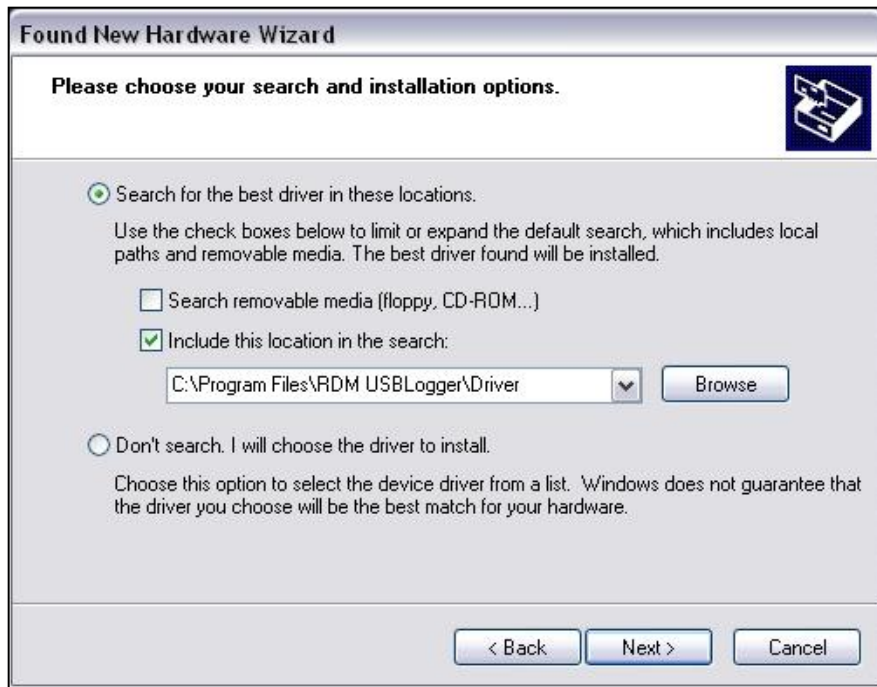


1. Select "No, not this time" and press "Next"



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2. Select "Install from a list or specific location (Advanced)" and press "Next"



3. Select "Search for the best driver in these locations." and highlight the "Include this location in the search." Now browse to the "Driver" folder which can be found in the directory in which the USB Logger application was installed. Remove the "Search removable media (floppy, CD-ROM....)" option and click on "Next".



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- The above operation will be displayed and shortly after the following message will be shown.



- Click the "Continue Anyway" button to proceed.



- If the installation is successful the above screen is shown. To complete the installation click "Finish".

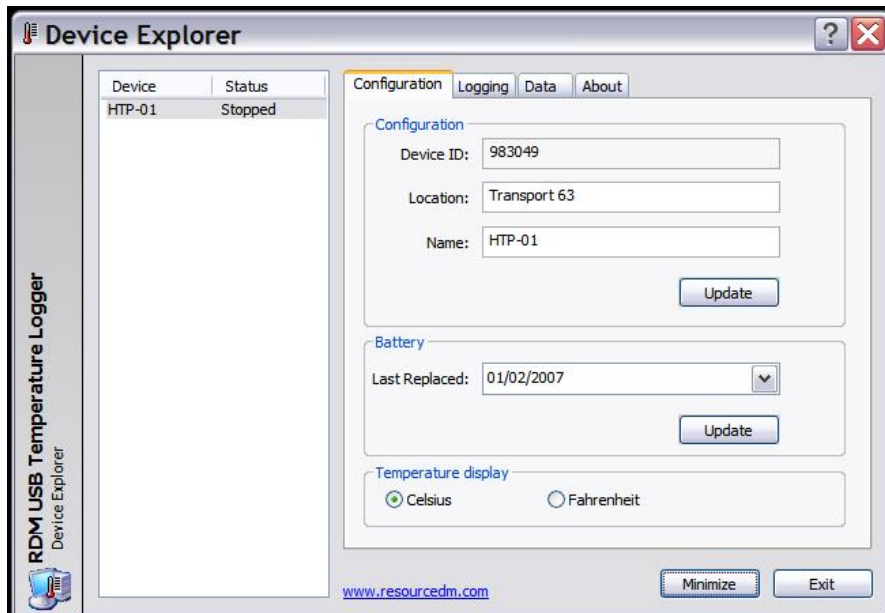


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## Using the USB Logger Application

With the USB Logger application running, insert your device into a USB port on the PC. The following pop-up dialogue box will appear on the desktop: - (you may also get system tray messages indicating new hardware has been found and new hardware is ready for use.)

## Configuration



On this tab (Configuration) the device Location and Name can be set. The operating temperature can also be selected.

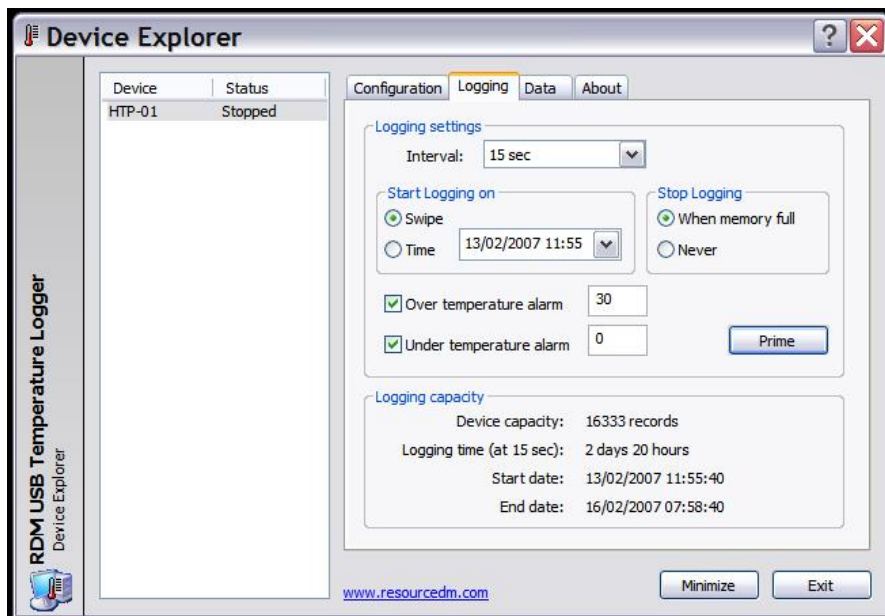
The Device ID is displayed (This cannot be changed).

Fill in the Location and Name fields with the appropriate information and click "Update" to save.

Please note the Location and Name fields should be used to uniquely address the USB logger for identification purposes. The Device ID is not required for use and may not always be present on the USB Logger. If no Device ID is present the USB Logger will still function correctly.

## Logging

Click on the Logging tab to configure the device's logging details.



On this tab (Logging) the device logging details can be changed.

Use the drop-down selection to change the logging interval. (The logging capacity will be shown for each logging interval selected)

Logging can be started by time or a swipe of the magnet in the cap. If start on time is selected, use the drop-down selector to change the date, then use the mouse over the time to change the hour and minutes.

The device can be programmed to stop when the memory is full or never stop. Be aware that if never is selected previous data will be overwritten.

Over and under alarm limits can be set on this tab.

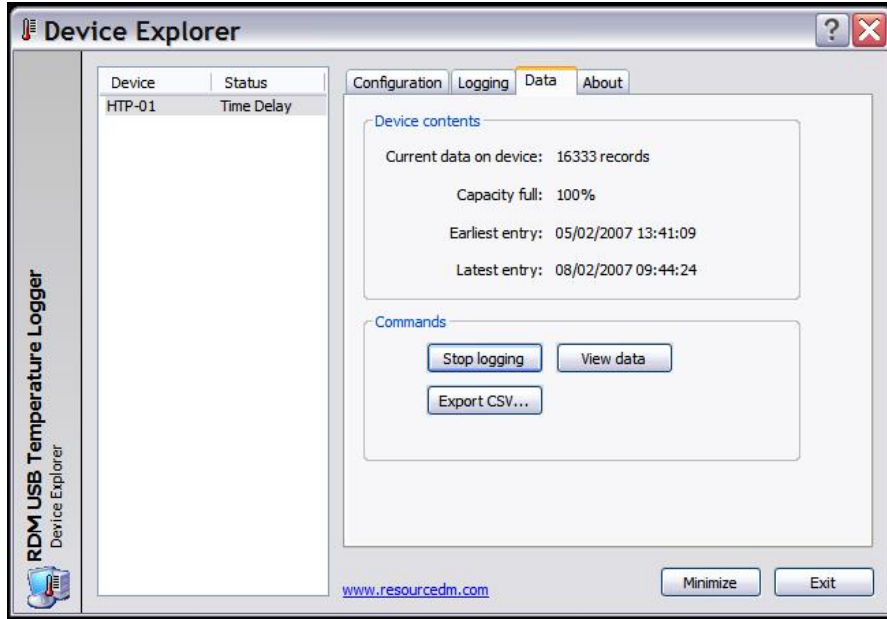
Click the "Prime" button to activate the settings.



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## Data

Click on the Data tab to view data from your Logging device.



Note. The Logger downloads its data when it is plugged in to the USB port. Although it will continue to log whilst in the PC, the samples taken will not be shown until the next time it is plugged in.

### Stop Logging

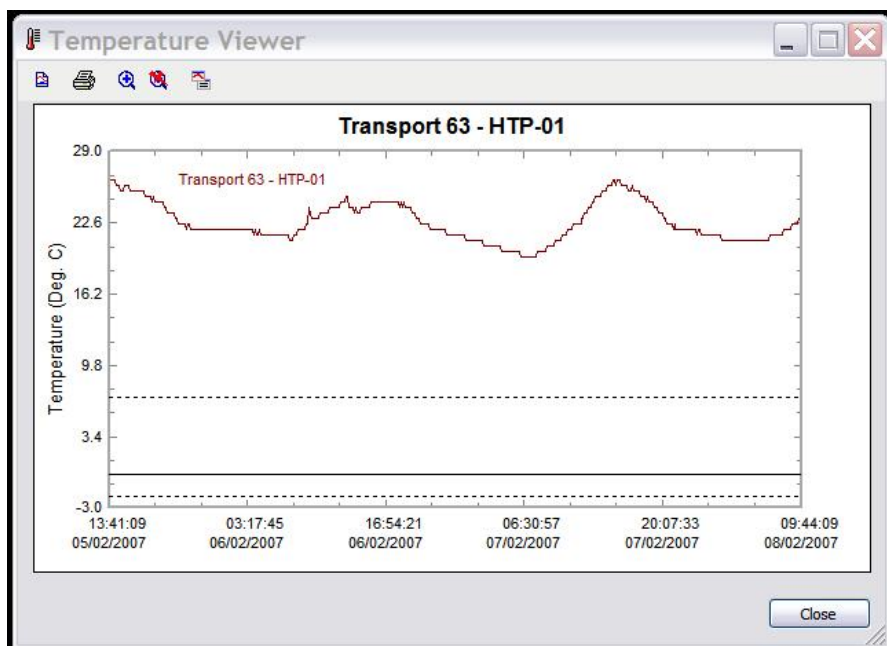
Logging can be stopped by clicking the “Stop logging” button.

### Save Data

Data can be downloaded as a CSV file for use with other programs such as Excel, click the “Export CSV” button and follow the screen instructions.

### View Data

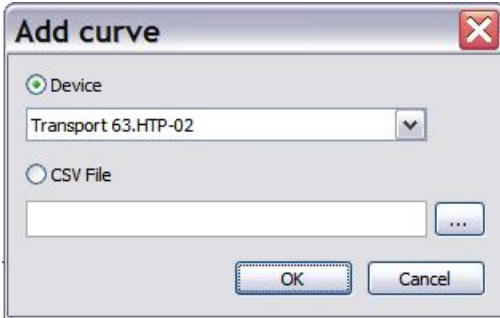
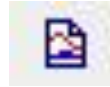
Data can be viewed by clicking the “View Data” button.



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**Adding a temperature Trace**

Click the following Icon to add a curve to the graph:



Data can be added to the graph either from another device or from a CSV file previously saved from this application.

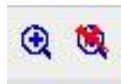
**Print**

Click on the following Icon to print the graph.



**Zoom**

To zoom in on an area, click on the zoom icon,



and then left click and hold, drag area to zoom and release.

To zoom out, click the close zoom icon, or right click.

**Table View**

The data can be viewed in tabular form by clicking the Table Icon,



Click the icon again to go back to graph view.



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## Device Operation

When the device has been “Primed”, normal operation will commence when the USB Logger is removed from the PC.

### Start logging

If “magnet” has been selected to prime, hold the cover close to the logger in the position shown below.



The Green LED will flash 5 times with a short interval (approx 1 second), followed by 5 rapid flashes. This indicates the start of logging.

If “Time” has been selected to prime the device, logging will start on the selected time. A magnet swipe can over-ride the timed start, hold the magnet in the same position as indicated above; the green LED will flash 10 times, followed by 5 rapid flashes. This indicates the start of logging.

### LED indication



LED Off:

Normal operation. No alarms



Red, double flash at 15 second intervals:

Over temperature alarm



Amber, double flash at 15 second intervals:

Under temperature alarm

**Note:** over and under temperature alarm indications continue until the device is inserted into a PC, even if the temperature falls back to within its normal range.



Red, single flash at 15 second intervals:

Low battery warning



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## Appendix 1 Logging periods

Logging Interval	Logging Period
15 seconds	2 days 20 hours
30 seconds	5 days 16 hours
1 minute	11 days 8 hours
2 minutes	22 days 16 hours
5 minutes	56 days 17 hours
15 minutes	170 days 3 hours
30 minutes	340 days 6 hours
60 minutes	680 days 12 hours

## Appendix 2 How to replace a USB temperature logger battery

Follow instructions below to replace the battery on the RDM USB Temperature logger.

**\*\* Note : At point number 2, if you pull too hard on the head when it separates from the body of the logger you can snap to power cables which run from the battery tray to the PCB.**

Instructions

1. Firstly remove the dust cap.
2. On the neck of the USB logger there are two clips which secure the head of the USB logger to the main body. Push these two clips in whilst slowly and gently pulling on the head. \*\*
3. By removing the "head" of the USB Logger you can expose the battery tray.
4. Carefully slide the battery tray out.
5. Take note of the battery orientation i.e. the positive and negative terminals.
6. Remove the old battery and insert the new battery ensuring it matches the old battery.
7. Reassemble the unit by reversing the above instructions.
8. Connect the logger to your PC/Laptop and start the "RDM USB Temperature Logger" software.
9. Go to "Configuration" and "Battery".
10. Update the "Last Replaced" date field with today's date.
11. Configure the USB logger to record and test the unit.

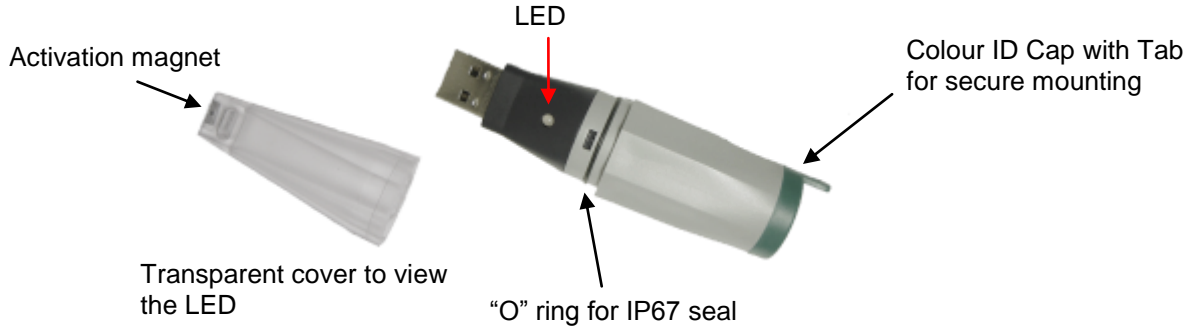
Battery information: - 3.6V Size 1/2 AA High Energy Lithium Battery



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## Specification

Storage Temperature:	-40 to +80 °C
Operating Temperature:	-35 to +80 °C
Moisture Protection:	IP67 (When the protective cover is fitted)
Accuracy -35 to -10°C:	±1.0°C
Accuracy -10 to +40°C:	±0.5°C
Accuracy +40 to +80°C:	±0.6°C



## Disclaimer

The specifications of the product detailed in this document may change without notice. RDM Ltd shall not be liable for errors or omissions, for incidental or consequential damages, directly or indirectly, in connection with the furnishing, performance or misuse of this product or document.

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