EL-USB-1

Temperature Data Logger

- -35 to +80°C (-31 to +176°F) measurement range
- Stores over 16,000 readings
- EasyLog software available as a free download
- Logging rates between 10 seconds and 12 hours
- Immediate and delayed logging start
- User-programmable alarm thresholds
- Status indication via red/green and amber LEDs
- Environmental protection to IP67



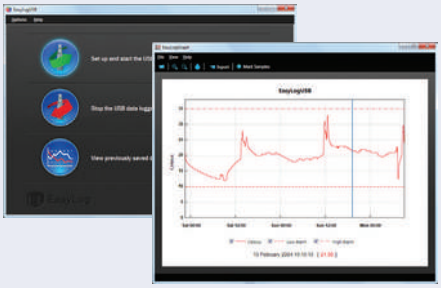
This standalone data logger measures and stores more than 16,000 temperature readings over a -35 to +80°C (-31 to +176°F) range with a resolution of 0.5°C (1°F).

The user can easily set up the logger and view downloaded data by plugging the data logger into a PC's USB port and using the free EasyLog software. Data can then be graphed, printed and exported to other applications for detailed analysis.

The data logger is supplied with a lithium metal battery which gives three year's logging life. The logger is protected against ingress from water and dust to IP67 standard when the cap is fitted.

EASYLOG SOFTWARE

Lascar's EasyLog control software is available as a free download from www.easylogusb.com. Easy to install and use, the control software is compatible with 32-bit and 64-bit versions of Windows 7, 8 and 10. The software is used to set up the logger, download, graph and annotate data or export in Excel, PDF and jpeg formats.



The software allows the following parameters to be configured:

- Logger name
- Measurement parameter (°C or °F)
- Logging rate (user selectable between 10 seconds and 12 hours)
- High and low alarms
- Immediate and delayed logging start

Download the latest version of the software free of charge from www.lascarelectronics.com/software/easylog-usb

SPECIFICATIONS

Measurement range	-35 to +80°C (-31 to +176°F)
Internal resolution	0.5°C (1°F)
Accuracy (overall error)	+/- 0.5°C typical (see graph on page 2)
Logging rate	User selectable between 10 seconds & 12 hours
Operating temperature range	-35 to +80°C (-31 to +176°F)
Battery Life	3 years (at 25°C and 1 minute logging rate)
Readings	16,382
Dimensions	99 x 25 x 23mm (3.89 x 0.98 x 0.90")

ACCESSORIES

BAT 3V6 1/2AA	Replacement battery
EL-USB-CASE	Protective metal case
EL-DataPad	Handheld data logger programmer & collector

INCLUDED IN THE BOX

BAT 3V6 1/2AA	Battery
EL-USB WALL BRACKET	Mounting Bracket

CALIBRATION CERTIFICATES NOW AVAILABLE

Lascar now offers a Traceable Calibration Certificate Service on Temperature Data Loggers. Using reference equipment which has been calibrated by a UKAS/NIST accredited laboratory and using apparatus traceable to national or international standards. For more information, please see **www.lascarelectronics.com**.

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EasyLog

LED STATUS INDICATION

The EL-USB-1 features two LEDs: a green/red LED to indicate logging and alarm status, and an amber LED to indicate a possible problem.

In normal operation the green LED will flash, but will change to red if an alarm condition has been triggered. Using EasyLog software it is possible to set the alarm to remain active even if the reading has returned to normal, in which case the alarm LED will continue to flash red. This 'Hold' feature in the software ensures the user is notified that at some point an alarm level has been exceeded, without needing to download the data.

	Green double flash The data logger is not currently logging, but is primed to start at a later date and time (delayed start)
	Green single flash The data logger is currently logging. No alarm
	Green and Amber single flash The data logger is full and has stopped logging. No alarm
	Red single flash The data logger is currently logging. Low alarm
	Red and Amber single flash The data logger is full and has stopped logging. Low alarm
	Red double flash The data logger is currently logging. High alarm
	Red and Amber double flash The data logger is full and has stopped logging. High alarm
	Amber single flash The battery is running low. Data logging will continue until the battery voltage drops below 2.8V
	No LEDs flash The data logger is stopped, the battery is empty or there is no battery

BATTERY INFORMATION

Replacement

We recommend that you replace the battery annually, or prior to logging critical data. Only use 3.6V ½AA lithium metal batteries. The data logger does not lose its stored readings when the battery is discharged or replaced; however, the data logging process will stop and will not resume until the battery is replaced and the logger restarted by EasyLog software or an EL-DataPad.

Before replacing the battery, remove the data logger from the PC. Please note that leaving the data logger plugged into the USB port for extended periods will cause some of the battery capacity to be lost.

Passivation

If left unused for extended periods of time lithium metal batteries, including those used in the EasyLog range of data loggers, naturally form a non-conductive internal layer preventing them from self-discharge and effectively increasing their shelf life. When first installed in the data logger, this may cause a momentary drop in the battery voltage (the Transient Minimum Voltage) as the internal layer is broken down, resulting in the data logger resetting. Inserting the batteries in the data logger and leaving it connected to a PC for about 30 seconds will remove this layer. After this, remove and re-install the batteries to reset the data logger. Overall battery life will not be affected.

WARNING

Handle lithium metal batteries carefully, observe warnings on battery casing. Dispose of in accordance with local regulations.

MEASUREMENT ACCURACY

