EL-USB-3

Voltage USB Data Logger

This data logger measures and stores up to 32,510 voltage readings over a 0-30V d.c. Measurement range. The user can easily set up the logging rate and start time, and download the stored data by plugging the module straight into a PC's USB port and running the purpose designed software under Windows 98, 2000, XP and Vista (32-bit). The data can then be graphed, printed and exported to other applications. The data logger is supplied complete with a long-life lithium battery. Correct functioning of the unit is indicated by flashing red and green LED. The data logger features a pair of screw terminals and is is supplied complete with a set of measurement leads terminating in crocodile clips.

FEATURES

- 0-30V d.c. Measurement Range
- Logging Rates between 1s and 12hr
- Stores 32,510 readings
- Connection via two screw terminals
- USB Interface for Set-up and Data Download
- User-Programmable Alarm Thresholds
- Red and Green LED Status Indication
- Replaceable Internal Lithium Battery

WINDOWS CONTROL SOFTWARE

Easy to install and use, the control software runs under Windows 98, 2000, XP (Home and Professional Editions) and Vista (32-bit). It allows the user to set up and download any EL-USB-3. The latest version of the control software may be downloaded

ORDERING INFORMATION

	Stock Number
Standard Data Logger (Data Logger, Measurement Leads, Software on CD and Battery)	**EL-USB-3**
Replacement Battery	**BAT 3V6**

DATA LOGGER SET-UPS

- Logger Name
- Logging Rate (1s, 10s, 1m, 5m, 30m, 1hr, 6hr, 12hr)
- High and Low Alarms
- Start Date and Start Time

SPECIFICATIONS

Specification	Min.	Typ.	Max.	Unit
0-30V d.c. measurement range	0		30	V d.c.
Internal resolution		50		mV d.c.
Accuracy (overall error)		±1		%
Logging rate	every 1s		every 12hr	-
Operating temperature range	-35 (-31)		+80 (176)	°C (°F)
1/2AA 3.6V Lithium Battery Life*	1			Year

* depending on ambient temperature, logging rate and use of alarm LED.

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LED FLASHING MODES

EL-USB-3 features a red and a green LED.

The LEDs on an EL-USB-3 will flash in one of the following ways, assuming alarm hold is turned off (exact timings to be confirmed).

- Green single flash, every 30 seconds	Logger primed and ready to start.
- Green single flash, every 10 seconds	Logging in progress, last stored value OK
- Red single flash, every 10 seconds	Logging in progress, the last stored reading is equal to or exceeds the low alarm level (If hold is turned on, then a stored value is equal to or exceeds the low alarm level)
- Red double flash every 10 seconds	Logging in progress, the last stored reading is equal to or exceeds the high alarm level (If hold is turned on, then a stored value is equal to or exceeds the high alarm level)
- Green single flash, every 20 seconds	Low battery, logging in progress, the last stored value OK
- Red single flash, every 20 seconds	Low battery, logging in progress, the last stored value is equal to or exceeds the low alarm level
- Red double flash, every 20 seconds	Low battery, logging in progress, the last stored value is equal to or exceeds the high alarm level
- Green double flash, every 20 seconds	Logger is full, last stored value OK
- Red/Green single flash, every 20 seconds, alarm hold turned on	Logger is full, last stored value is equal to or exceeds the low or high alarm level
- No LEDs flash	LEDs disabled during configuration to save battery power and increase logging duration. or Battery dead.

By default hold is disabled. In this mode the red LED will no longer continue to flash after the logged temperature has returned to normal from an alarm condition.

Hold can be turned on via the control software. In this mode the red LED that indicates an alarm condition will continue to flash, even after the logged temperature has returned to normal. The red LED will effectively have latched into its alarm condition. This feature ensures that the user is notified that an alarm level has been exceeded, without the need to download the data from the logger.

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CONNECTION

BATTERY REPLACEMENT

We recommend that you replace the battery every 12 months, or prior to logging critical data.

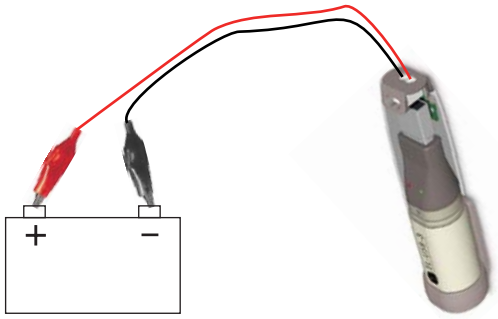
The EL-USB-3 does not lose its stored readings when the battery is discharged or when the battery is replaced; the data logging process will however be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to PC.

Only use 3.6V 1/2AA lithium batteries. Check with your supplier that the battery you are ordering is 'press fit' and is not fitted with solder tags. Before replacing the battery, remove the EL-USB-3 from the PC.

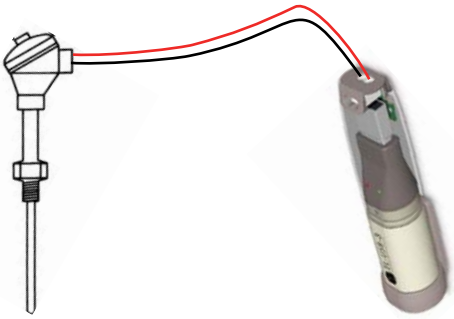
Note:
Leaving the EL-USB-3 plugged into the USB port for longer than necessary may cause some of the battery capacity to be lost.

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

APPLICATIONS



Logging a battery voltage



Logging a sensor voltage

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