

# EL-USB-1-PRO

## Temperature Data Logger with Extended Range

### ORDERING INFORMATION

Standard Data Logger (Data Logger, Software on CD, Battery)	EL-USB-1-PRO
Replacement Battery	BAT 3V6 2/3AA H TEMP

### FEATURES

- -40 to +125°C (-40 to +257°F) measurement range
- Stainless Steel (316 grade) case
- Environmental protection to IP67
- USB interface for set-up and data download
- Immediate and delayed start logging
- Supplied with replaceable high capacity lithium battery and Windows control software.



This standalone data logger measures and stores up to 32,510 temperature readings over a -40 to +125°C (-40 to +257°F) measurement range. The stainless steel 316 assembly provides protection from corrosion, impact and water ingress to IP67/NEMA 4X. The unit is powered by a 2/3AA 3.6V lithium battery which allows logging for up to 3 years. Setup and downloading is completed by plugging the data logger into a PC's USB port and running the purpose designed software under Windows 2000, XP, Vista or 7. Downloaded data can then be graphed, printed and exported to other applications.

Specifications	Minimum	Typical	Maximum	Unit
Measurement range	-40 (-40)		+125 (+257)	°C (°F)
Accuracy (overall error)		±0.2 (±0.4) †	±1.6 (±2.9)	°C (°F)
Internal resolution		0.1		°C (°F)
Logging rate	every 1 s		every 12 hr	-
Operating temperature range	-40 (-40)		+125 (+257)	°C (°F)
2/3AA 3.6V High Temperature Lithium Battery Life	1*	2**	3	Year

† Between 0°C and 40°C - see graph on page 2

\* 10 second logging rate @ -20°C

\*\* 10 second logging rate @ +80°C

### EL-WIN-USB (CONTROL SOFTWARE)

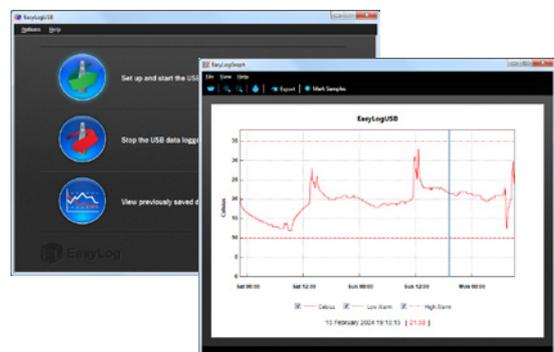
Lascar's EasyLog USB control software is supplied free of charge with each data logger. Easy to install and use, the control software runs under Windows 2000, XP, Vista & 7. The software is used to set-up the data logger as well as download, graph and export data to Excel.

The software allows the following parameters to be configured:

- Logger name
- °C, °F
- Logging rate (1s, 10s, 1m, 5m, 30m, 1hr, 6hr, 12hr)
- Data rollover (Allows unlimited logging periods by overwriting the oldest data when the memory is full)
- Start date and start time

The latest version of the control software may be downloaded free of charge from

[www.lascarelectronics.com](http://www.lascarelectronics.com)



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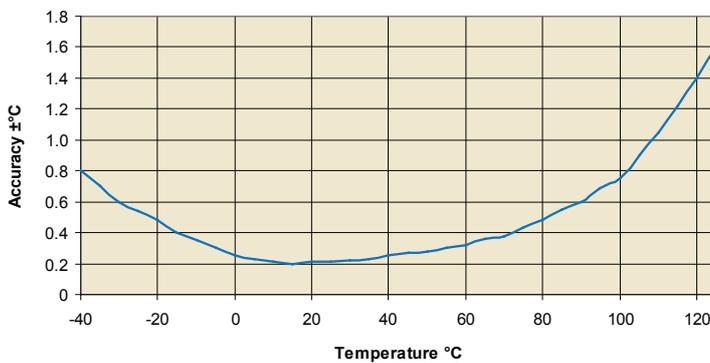
### DIMENSIONS

All dimensions in mm (inches)



### MEASUREMENT ACCURACY

EL-USB-1-PRO Accuracy



### BATTERY REPLACEMENT

We recommend that you replace the battery every 18 months, or prior to logging critical data.

The EL-USB-1-PRO does not lose its stored readings when the battery is discharged or when the battery is replaced; however, the data logging process will be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to a PC.

Only use an EL-USB-1-PRO battery that is supplied or recommended by Lascar, which is rated for use in high temperatures and has the correct battery terminals. Using non-Lascar batteries may result in fire or explosion at high temperatures. Suitable batteries are: Tadiran TLH-5955/S and Tadiran SL-561/S.

#### Note:

Leaving the EL-USB-1-PRO plugged into the USB port for longer than necessary will 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.

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### THE EASYLOG USB RANGE

Each EL-USB data logger features the direct-to-USB connection and easy-to-use functionality that the range is known for. The range comprises of the following data loggers:

Part No	Function	Range	Accuracy (overall error)		Readings	Battery	Battery Life*
			Typ.	Max.			
EL-USB-1	Temperature	-35 to +80 °C (-31 to +176 °F)	±1°C (±2°F)		16,382	3.6V ½AA	1 Year
EL-USB-1-LCD	Temperature with LCD	-35 to +80 °C (-31 to +176 °F)	±0.5°C (±1°F)	±1.5°C (±3°F)	16,382	3.6V ½AA	1 Year
EL-USB-1-PRO	High Temperature	-40 to +125 °C (-40 to +257 °F)	±0.2°C (±0.4°F)	±0.5°C (±1°F)	32,510	3.6V ¾AA	3 years
EL-USB-1-RCG	Temperature with rechargeable battery	-20 to +60 °C (-4 to +140 °F)	±1°C (±2°F)		32,510	Lithium Ion	1 month (rechargeable)
EL-USB-2	Temperature, humidity & dew point	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.5°C (±1°F) ±3%RH	±2°C (±4°F) ±6.0%RH	16,382	3.6V ½AA	1 year
EL-USB-2+	Increased accuracy temperature, humidity & dew point	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.3°C (±0.6°F) ±2.0%RH	±1.5°C (±3°F) ±4.0%RH	16,382	3.6V ½AA	1 year
EL-USB-2-LCD	Temperature, humidity & dew point with LCD	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.5°C (±1°F) ±3.0%RH	±2°C (±4°F) ±6.0%RH	16,379	3.6V ½AA	1 year
EL-USB-2-LCD+	Increased accuracy temperature, humidity & dew point with LCD	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.3°C (±0.6°F) ±2.0%RH	±1.5°C (±3°F) ±4.0%RH	16,379	3.6V ½AA	1 year
EL-USB-3	Voltage	0 to 30V d.c.	±1%		32,510	3.6V ½AA	1 year
EL-USB-4	Current loop	4 to 20mA	±1%		32,510	3.6V ½AA	1 year
EL-USB-5	Counter, Event & State	N/A		±3 secs/24 hrs	32,510	3.6V ½AA	1 year
EL-USB-TC	Thermocouple (J, K and T-type) K-type probe included	-200 to +1350°C (-328 to +2462°F) (K-type) -200 to +1190°C (-328 to +2174°F) (J-type) -200 to +390°C (-328 to +734°F) (T-type)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
EL-USB-TC-LCD	Thermocouple with LCD (J, K and T-type) K-type probe included	-200 to +1350°C (-328 to +2462°F) (K-type) -200 to +1190°C (-328 to +2174°F) (J-type) -200 to +390°C (-328 to +734°F) (T-type)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
EL-USB-CO	Carbon monoxide	0 to 1000ppm <b>NOT A LIFE SAVING DEVICE</b>	±6ppm		32,510	3.6V ½AA	3 months
EL-USB-CO300	Carbon monoxide	0 to 300ppm <b>NOT A LIFE SAVING DEVICE</b>	±4ppm		32,510	3.6V ½AA	3 months
EL-USB-LITE	Low cost temperature	-10 °C to +50 °C (+14 to +122 °F)	±1°C (±2°F)		4,080	CR1620 Lithium coin cell	1 month
EL-USB-RT	Real-time temperature & humidity monitor	-20 to +70 °C (-4 to +158 °F)	±1.5°C (±3°F) ±4.5%RH		7 days	N/A	N/A

\*Depending on logging rate, ambient temperature, and use of alarm LED

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