

EL-USB-ACT AC/DC Current Data Logger



- ✓ Compatible with AC or DC current clamps, current transformers, and current shunts
- ✓ True RMS conversions for AC measurements
- ✓ Sample intervals from 1s to 12hrs
- ✓ Stores up to 127,000 readings
- ✓ USB interface
- ✓ Programmable alarms
- ✓ High contrast LCD display
- ✓ Included EL-Win-USB software for set-up and data analysis
- ✓ Powered by replaceable AA batteries (2)

EL-USB-ACT Description

The EL-USB-ACT is an inexpensive stand-alone data logger, capable of taking current readings between 0 to 1000 amp DC (0 to 723 amps RMS). The logger can be used with a compatible current clamp (not included), a current transformer, a Hall Effect current sensor or connected across a shunt. All AC measurements are converted to true rms. With a storage capacity of 127,000 readings and sample intervals ranging from 1 second to 12 hours, the EL-USB-ACT can log current data, uninterrupted, for up to 6 months.

The included EL-Win-USB software allows the EL-USB-ACT to be configured to log AC/DC current, power and energy data (user defined voltage values are used to calculate power and cumulative energy), or voltage. In addition, user defined alarms can be set, triggering a high/low alarm indicator on the high-contrast LCD display when current or voltage values rise above or fall below specified levels. The included EL-Win-USB software allows the EL-USB-ACT to be configured to log AC/DC current, power and energy data (user-defined voltage values are used to calculate power and cumulative energy), or voltage (DC or true RMS).

Stored data can be downloaded from the EL-USB-ACT via USB to your PC hard drive. Once downloaded, the included EasyLogGraph software allows data to be graphed, printed or saved in.xls format, for viewing in Microsoft Excel.

EL-USB-ACT Close-up

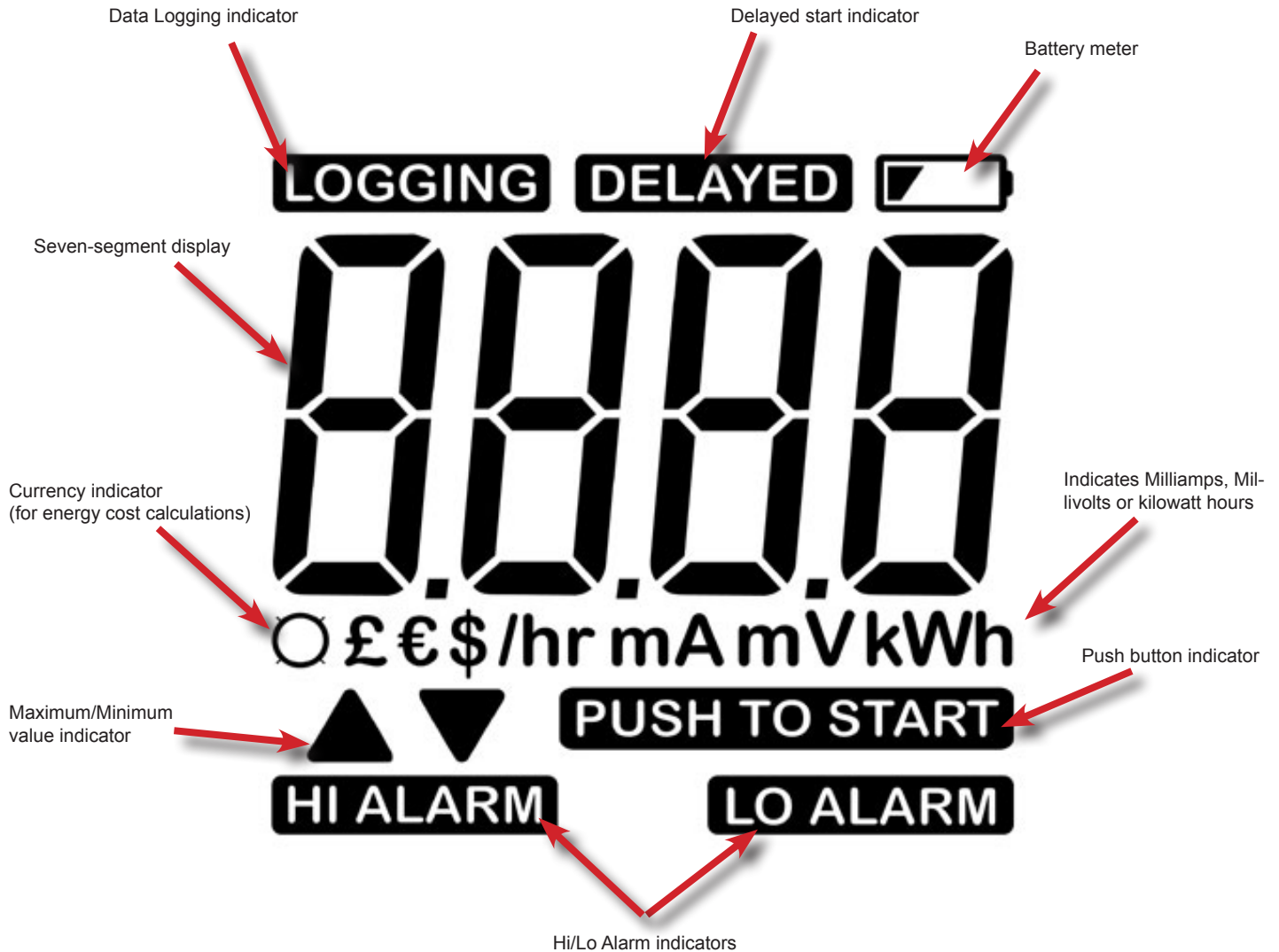


All dimensions in mm (inches)



LCD Display and Functions

The high contrast LCD display shows the present milliamp, millivolt or kilowatt value, indicates when logging is delayed and when it has begun, displays units being acquired (millivolt, amps or kilowatt hours) and the battery level. Hi/Lo alarm indicators indicate when alarm levels are reached and a 'push to start' indicator tells users when the push-button must be depressed to start logging data. Up/Down arrows appear independently when Maximum/Minimum values are displayed. When acquiring energy cost, currency is displayed in pounds, euros or dollars (per hour).



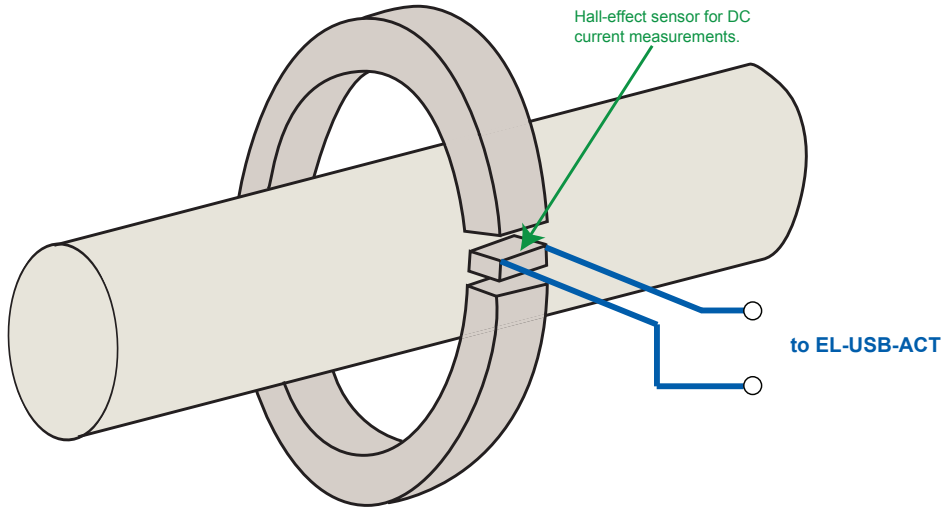
Record Times and Battery Life

| Sampling Interval | Record Time |
|-------------------|-------------|
| 1 second | 35 hours |
| 10 seconds | 14 days |
| 1 minute | 88 days |
| 5 minutes | 14 months |
| 30 minutes | 7 years |
| 1 hour | 14 years |
| 6 hours | 88 years |
| 12 hours | 176 years |

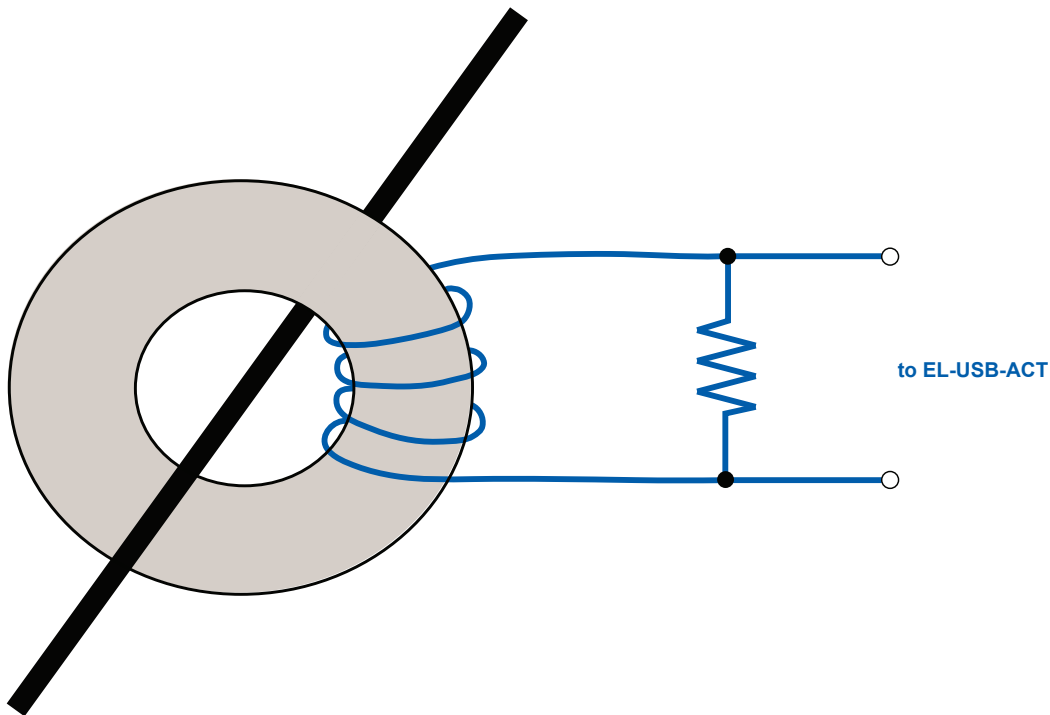
| Sampling Interval | LCD Mode | Expected Battery Life |
|-------------------|---------------------------------------|-----------------------|
| 1 second | on at all times | 5 days |
| 1 minute | On for 30 seconds after battery press | 2 weeks |

Typical EL-USB-ACT Applications

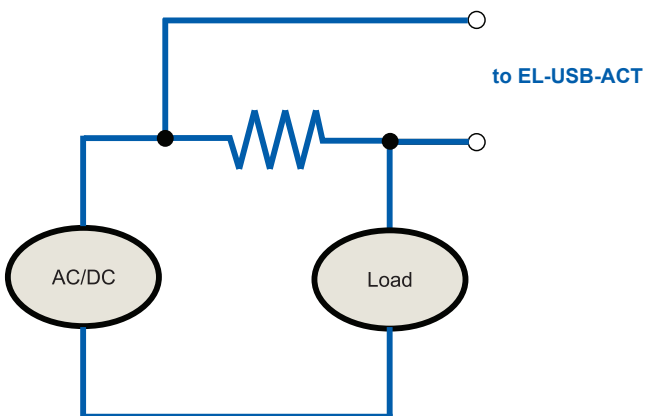
AC/DC Current Clamps



Current Transformer



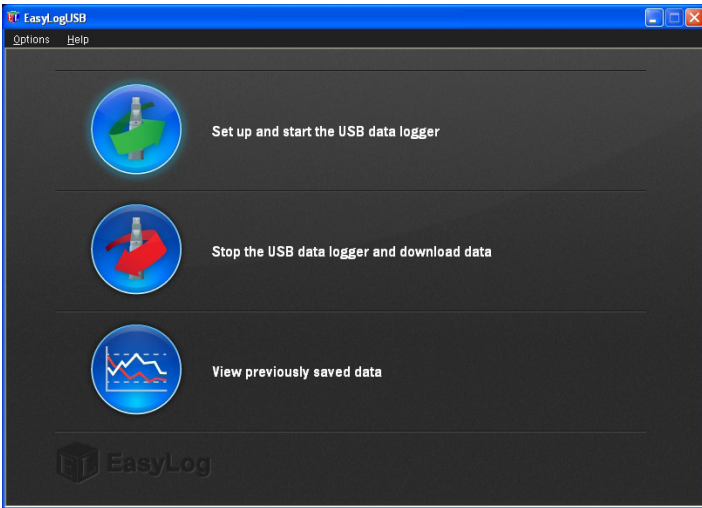
Current Shunt



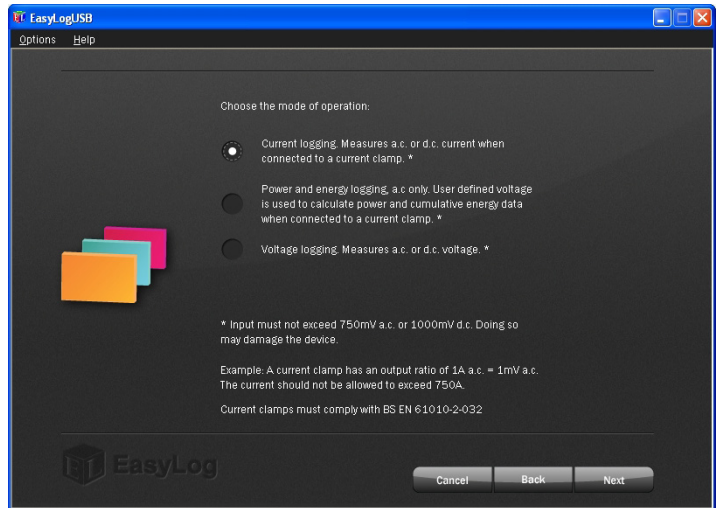
Software Close Up

Included EasyLog USB software allows you to name the EL-USB-ACT, configure it to acquire current, voltage or energy data, set the sample rate, and enter a current clamp scaling ratio. Alarms and delayed start times are also set using the Easylog USB software.

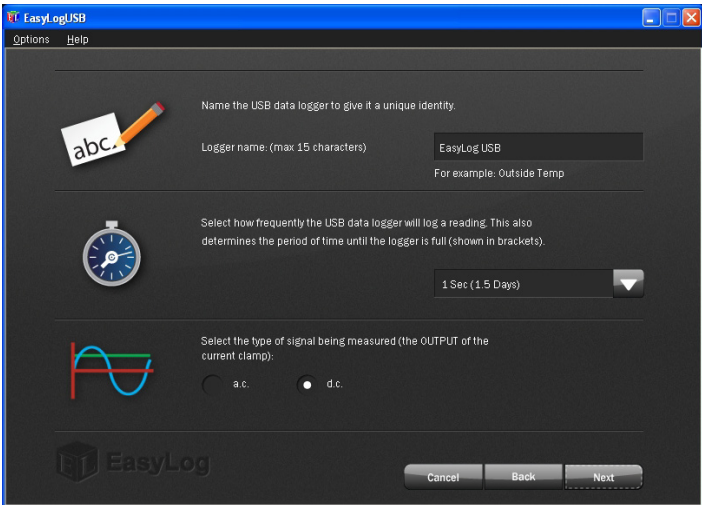
1. Start Software



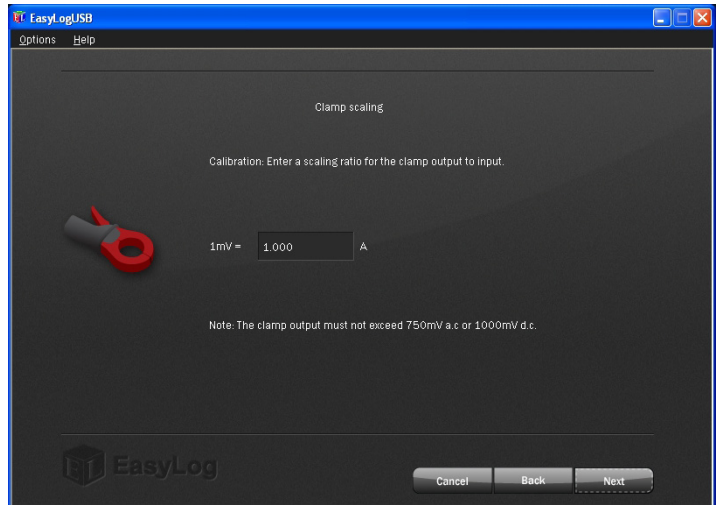
2. Choose the mode of operation



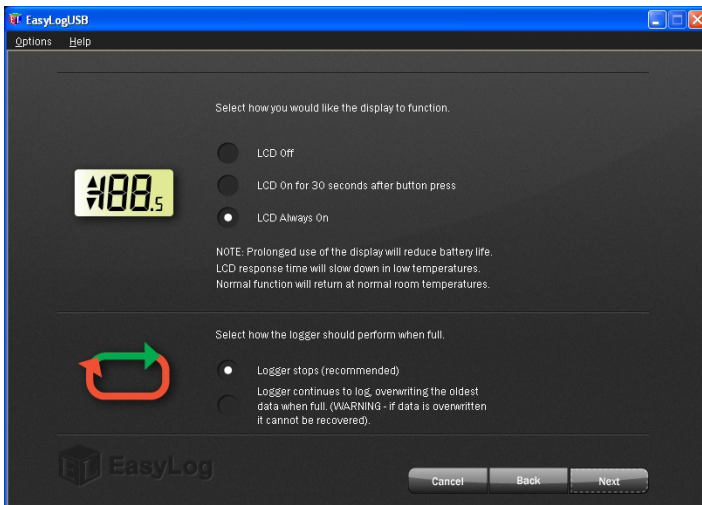
3. Configure general settings



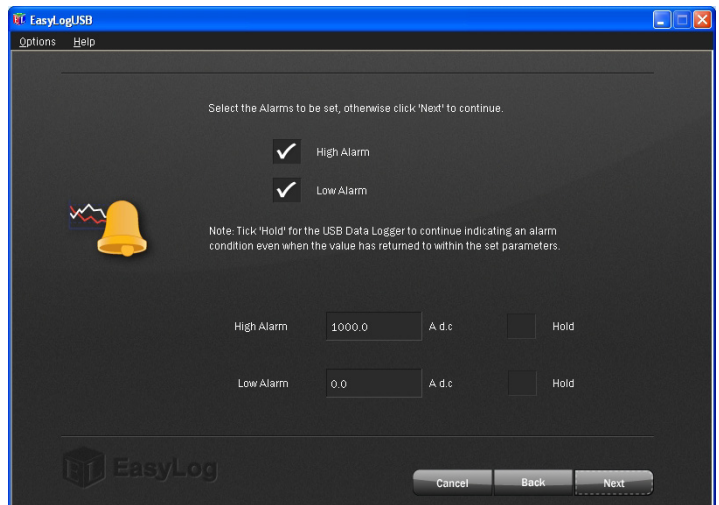
4. Enter a scaling ratio



5. Choose a LCD and memory configuration

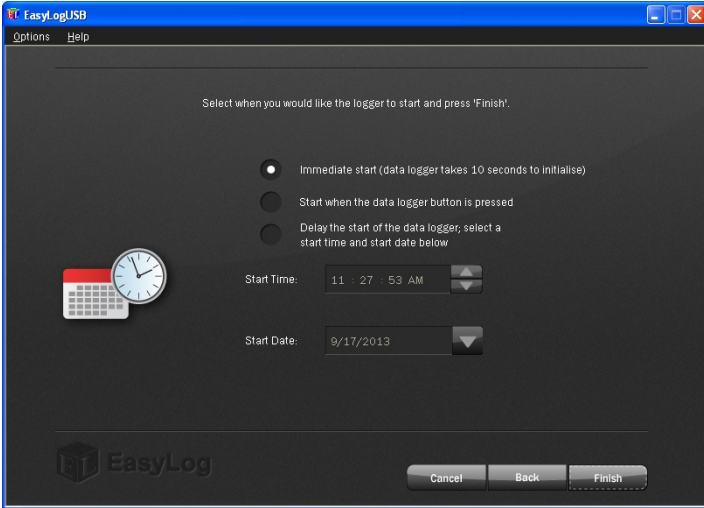


6. Configure alarms

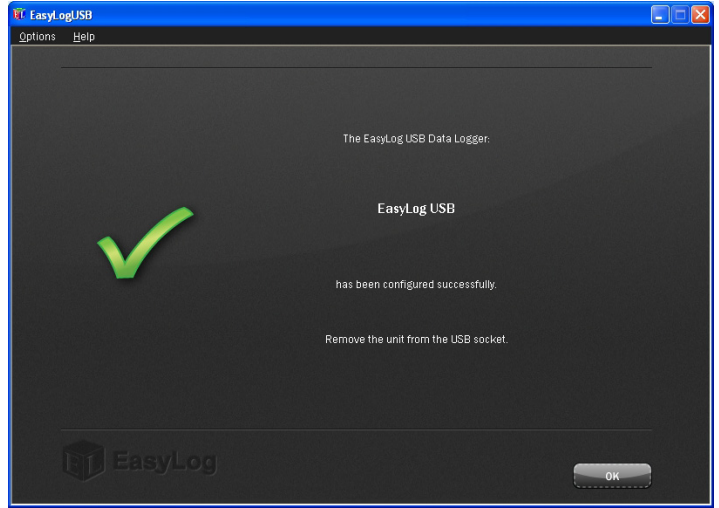


Software Close Up (continued)

7. Choose when to start recording

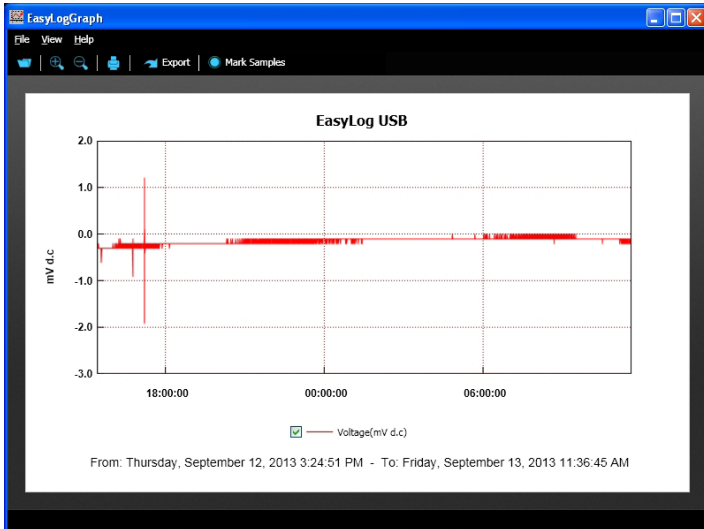


8. Setup complete!



Once acquisition is complete, the included EasyLogGraph software allows you to graph the data, print it, or save it in .xls format for easy viewing in Microsoft Excel.

Data displayed in EasyLogGraph software



Data displayed in Microsoft Excel

The screenshot shows the 'Microsoft Excel - Sheet1' window. The data is displayed in a table with the following columns: EasyLog USB, Time, Voltage(mV d.c), and Serial Number. The data points are as follows:

| EasyLog USB | Time | Voltage(mV d.c) | Serial Number |
|-------------|------|-----------------|---------------|
| 1 | 1 | 12/9/2013 15:24 | -0.3 |
| 2 | 2 | 12/9/2013 15:24 | -0.3 |
| 3 | 3 | 12/9/2013 15:24 | -0.3 |
| 4 | 4 | 12/9/2013 15:24 | -0.3 |
| 5 | 5 | 12/9/2013 15:24 | -0.3 |
| 6 | 6 | 12/9/2013 15:24 | -0.3 |
| 7 | 7 | 12/9/2013 15:24 | -0.3 |
| 8 | 8 | 12/9/2013 15:24 | -0.3 |
| 9 | 9 | 12/9/2013 15:24 | -0.3 |
| 10 | 10 | 12/9/2013 15:24 | -0.3 |
| 11 | 11 | 12/9/2013 15:25 | -0.3 |
| 12 | 12 | 12/9/2013 15:25 | -0.3 |
| 13 | 13 | 12/9/2013 15:25 | -0.3 |
| 14 | 14 | 12/9/2013 15:25 | -0.3 |
| 15 | 15 | 12/9/2013 15:25 | -0.3 |
| 16 | 16 | 12/9/2013 15:25 | -0.3 |
| 17 | 17 | 12/9/2013 15:25 | -0.3 |
| 18 | 18 | 12/9/2013 15:25 | -0.3 |
| 19 | 19 | 12/9/2013 15:25 | -0.3 |
| 20 | 20 | 12/9/2013 15:25 | -0.3 |
| 21 | 21 | 12/9/2013 15:25 | -0.3 |
| 22 | 22 | 12/9/2013 15:25 | -0.3 |
| 23 | 23 | 12/9/2013 15:25 | -0.3 |
| 24 | 24 | 12/9/2013 15:25 | -0.3 |
| 25 | 25 | 12/9/2013 15:25 | -0.3 |

Specifications

| Specification | Minimum | Typical | Maximum | Unit |
|---|-----------|---------|------------|--------------------|
| Measurement range (a.c.) | 0 | - | 707 | mV a.c. RMS |
| Equivalent clamp measurement range (a.c.) | 0 | - | 723 | A a.c. |
| Accuracy (a.c.) | - | 5 | - | % (± 2 count) |
| Frequency | | - | 100 | Hz |
| Measurement range (d.c.) | -1000 | - | 1000 | mV d.c. |
| Equivalent clamp measurement range (d.c.) | 0 | - | 1000 | A d.c. |
| Accuracy (d.c.) | - | 2 | - | % (± 1 count) |
| Measurement resolution | - | 1 | - | mV |
| Display resolution* | 1 | - | - | mV |
| Logging rate (Current measurement) | Every 1s | - | Every 12hr | - |
| Logging rate (Energy measurement) | Every 1s | - | Every 10s | - |
| Operating temperature range | -10 (-31) | - | +50 (176) | °C (°F) |
| Battery life** | - | - | 6 | Months |

* Display resolution will change, depending on the number of digits in use. The display will auto range to make the best use of available space

** Depending on sample rate, ambient temperature and use of LCD

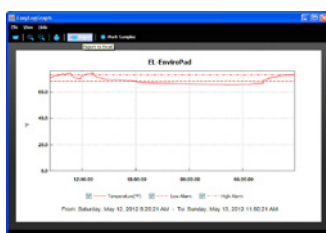
Ordering Guide

| Description | Order No. |
|---|------------|
| EL-USB-ACT Data logger with USB cable, software on CD, and two (2) AA batteries | EL-USB-ACT |
| Optional Accessories | |
| Black test lead. Sheathed, male-male, 42-inches overall length. | 100933-0 |
| Red test lead. Sheathed, male-male, 42-inches overall length. | 100933-2 |
| Black right angle insulated plunger hook. | 100935-0 |
| Red right angle insulated plunger hook. | 100935-2 |
| Black, female-female coupler for extending test lead length or converting test leads to female compatibility. | 100936-0 |
| Red, female-female coupler for extending test lead length or converting test leads to female compatibility. | 100936-2 |

Included



EL-USB-ACT



EasyLog Graph Software



USB Cable
(1 meter)

Optional Accessories



100933-0
(42 in.)



100933-2
(42 in.)



100935-0



100935-2



100936-0



100936-2

EL-USB Data Logger Series Overview

EasyLog Products for Any Application

From temperature and humidity to carbon monoxide trending, there's an EasyLog data logger that's right for you. Click on "Go" to go to the product's web page.

| Measurement | | Model EL-USB (click on page number to jump to page) | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--|
| Function | Range | -LITE | -1 | -1-LCD | -1-RCG | -1-PRO | -2 | -2+ | -2-LCD | -2-LCD+ | -3 | -4 | -5 | -ACT | -CO | -TC | -TC-LCD | -TP-LCD | -TP-LCD+ | |
| Temperature | -10 to +50°C (+14 to +122°F) | Go | | | | | | | | | | | | | | | | | | |
| Temperature | -35 to +80°C (-31 to +176°F) | | Go | Go | | | | | | | | | | | | | | | | |
| Temperature | -20 to +60°C (-4 to +140°F) | | | | Go | | | | | | | | | | | | | | | |
| High Temperature | -40 to +125°C (-40 to +257°F) | | | | | Go | | | | | | | | | | | | Go | Go | |
| Humidity, temperature, dew point | 0 to 100% RH -35 to +80°C (-31 to +176°F) | | | | | | Go | Go | Go | Go | | | | | | | | | | |
| Voltage | 0 to 30 VDC | | | | | | | | | | Go | | | | | | | | | |
| Process current | 4 to 20 mA | | | | | | | | | | | Go | | | | | | | | |
| Event, State, Count | 3-28 VDC | | | | | | | | | | | | Go | | | | | | | |
| Current | -1000 to 1000 mV | | | | | | | | | | | | | Go | | | | | | |
| Carbon monoxide | 0 to 1000 ppm | | | | | | | | | | | | | | Go | | | | | |
| Thermocouple | -130 to +900°C -200 to +1300°C -200 to +350°C | | | | | | | | | | | | | | | Go | Go | | | |

Lascar Data Logger Product Lines

EL-USB Data Loggers



Lascar EasyLog model EL-USB series products are a line of low cost, compact, battery-operated data loggers with built-in memory and a USB interface for easy setup and data download. Each product in the line offers a specific measurement function (including temperature, voltage, process current, and more).

EL-GFX Data Loggers



The EL-GFX line of data loggers is the latest release from Lascar Electronics with similar functionality of the EL-USB series with an added graphic display for data.

EL-WiFi Data Loggers



Lascar's EL-Wifi Data Logger series products are low cost, compact, battery-operated data loggers with wireless connectivity to any PC over a WiFi router. Each product in the line features a large, easy-to-read display of current measurements, and is purchased for specific measurement functions.



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Data Acquisition Product Links

(click on text to jump to page)

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