# Temperature and Relative Humidity Data Logger with Graphic Screen

#### ORDERING INFORMATION

Standard Data Logger (Data Logger, 2 x Batteries, USB cover, Mounting Clip, Micro USB cable) EL-GFX-2

Replacement Battery

(2 Required)

BAT 3V6 1/2AA

#### **FEATURES**

- · Rugged and robust, IP67 construction
- -30 to +80°C and 0 to 100% RH measurement ranges
- · Logging rates between 10 seconds and 1 hour
- Stores over 250,000 readings
- On screen menu and graphing to start, stop, review and restart the logger in the field
- · Micro USB interface for PC based set-up and data download
- Immediate, delayed, push-button or temperature/RH triggered start mode
- · User-programmable alarm thresholds
- · Graphic LCD shows real-time readings, graph and current status
- · Resettable Min/Max readings may be viewed on the LCD
- · User set audible alarm
- Highly visible confidence/alarm LEDs
- Supplied with user replaceable ½ AA batteries



The EL-GFX-2 standalone USB data logger measures and stores up to 252,928 temperature and humidity readings over a -30 to +80°C (-22 to 176°F) and 0 to 100%RH range at a resolution of 0.1°C and 0.1%RH. Using the Windows control software (available as a free download from www.easylogusb.com), users can quickly set up the data logger and view downloaded data by connecting the device to the PC's USB port using the supplied cable.

The data logger features a high-contrast graphic LCD and three-input buttons. This allows users to start, stop and restart the data logger using on-screen menus. This menu also provides real-time analysis of data either as a data summary (showing highest & lowest readings and alarm conditions) or as a graph that updates as new data is added. The Max and Min readings and also the Time and Date these are valid from, can be displayed on the LCD ( info button). If desired, the user can then reset the Max/Min shown on this screen of the LCD. Each time these maxima and minima are reset whilst logging, an "Event Marker" is created in the data. When the data has been downloaded to a PC these Events can be viewed on the graph (Mark Events), they also appear in the data file - associated with the corresponding log when the reset took place. For certain applications where procedures mandate that a regular physical check of the logger / stats have taken place – this can be useful as an audit / validation tool. Multiple data logging sessions can be stored on the device ready for upload to a PC at a later date.

The data logger's robust design provides IP-67 waterproof protection and the two replaceable  $\frac{1}{2}$ AA batteries typically allow logging for up to one year.





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Specifications		Minimum	Typical	Maximum	Unit
Relative Humidity	Measurement range	0		100	%RH
	Internal resolution		±0.1		%RH
	Accuracy (overall error)		±3.0*	±5.0	%RH
	Repeatability		0.5		%RH
	Long term stability		0.5		%RH/year
Temperature	Measurement range	-30(-22)		+80 (+176)	°C(°F)
	Internal resolution		0.1 (0.1)		°C(°F)
	Accuracy (overall error)		±0.5 (±1.0)	±2.0 (±4.0)	°C (°F)
	Repeatability		±0.1 (±0.2)		°C(°F)
Dew Point	Accuracy (overall error)		±1.1 (±2.0)**		°C(°F)
Logging Rate		Every 10 seconds		Every 1 hour	Time
Operating Temperature Range***		+30 (-22)		+80 (+176)	°C(°F)
2 x ½AA 3.6V Lithium Battery Life			1†		Year

 $<sup>^{*}</sup>$  This specifies the overall error in the logged readings, for relative humidity measurements between 20 and 80%RH.

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

Lascar's Easylog USB control software is available to download from www.easylogusb.com. Easy to install and use, the control software runs under Windows XP, Vista and Windows 7. The software is used to set-up the data logger as well as download, graph and export data to Excel. Each stored logging session is saved as a separate file.

The software allows the following parameters to be configured:

- Logger name
- Measurement parameter (°C or °F)
- Logging Rate (customisable between 10 seconds and 1 hour)
- High and low temperature alarms
- Immediate, delayed, push-button or temperature/humidity triggered start mode
- Disable or enable LEDs and sounder with delayed activation
- · Display and backlight behaviour after button press

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The latest version of the control software may be downloaded free of charge from www.easylogusb.com



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<sup>\*\*</sup> This specifies the overall error in the calculated dew point for relative humidity measurements between 40 and 100%RH at 25°C.

<sup>\*\*\*</sup> At temperatures below -5°C the LCD will exhibit slower response times. The LCD will be disabled at temperatures under -20°C and above 70°C.

 $<sup>\</sup>dagger$  At 25  $^{\circ}\text{C}$  and 10 minute logging rate, with no alarm LEDs or sounder and minimal LCD use.

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#### **DIMENSIONS**

All dimensions in mm (inches)

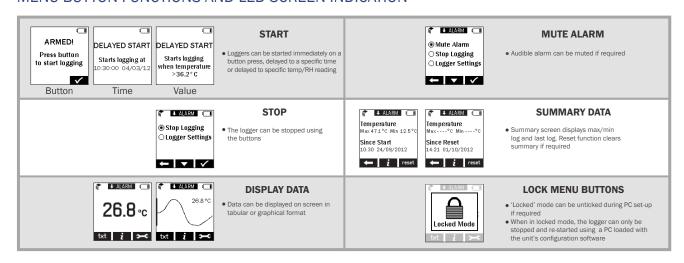




48.5 (1.91)

30.5 (1.20)

### MENU BUTTON FUNCTIONS AND LED SCREEN INDICATION







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#### **BATTERY REPLACEMENT**

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

The EL-GFX-2 does not lose its stored readings when the batteries are discharged or when the batteries are replaced; however, the data logging process will be stopped. If the batteries are changed within a 2 minute window the EL-GFX-2 will retain its settings (internal clock and logging mode). This will allow logging to be restarted without additional connection to a PC via USB.

Only use  $2 \times 3.6 \text{V}$  ½AA lithium batteries. Do not mix battery types and do not mix new and old batteries. Before replacing the batteries, unplug the EL-GFX-2 from the PC.

#### **WARNING**

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

#### TEMPERATURE ACCURACY

### Temperature error vs Temperature 1.0 0.8 0.6 (°C) Temperature Error 0.4 0.2 0 -0.2 -0.4 -0.6 -0.8 -1.0 -25 25 75 100 Temperature (°C)



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