EL-GFX-2

Temperature and Relative Humidity Data Logger with Graphic Screen

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 +80ºC (-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) the user can quickly set up the logger name, sample rate, alarm settings and start mode (immediate start, push to start, delayed start or temperature/humidity triggered start). This software can later be used to download the stored data which can be graphed, printed and exported to other applications.

The data logger features a dot-matrix LCD and three face-buttons to navigate through an on-screen menu. This menu provides the user with access to real-time trend analysis, data summaries and the ability to start, stop and restart the data logger without the need to connect the data logger to the host-PC. Users can reset the maximum/minimum reading using the on-screen menu; this introduces an 'event marker' into the data which can later be viewed in the graphing software ('Mark Events' option) and the data file after download.

The data logger is supplied with two replaceable ½AA batteries.

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			4†		Months

* This specifies the overall error in the logged readings, for relative humidity measurements between 20 and 80%RH.
** This specifies the overall error in the calculated dew point for relative humidity measurements between 40 and 100%RH at 25°C.
*** 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.
† At 25°C and 10 minute logging rate, with no alarm LEDs or sounder and minimal LCD use.

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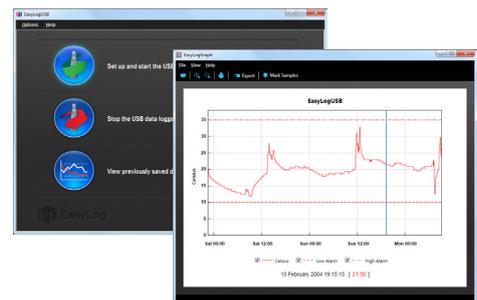
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EL-WIN-USB (CONTROL SOFTWARE)

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

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

DIMENSIONS

All dimensions in mm (inches)

88.0 (3.46)

48.5 (1.91)

30.5 (1.20)
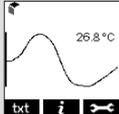
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MENU BUTTON FUNCTIONS AND LED SCREEN INDICATION

START LOGGER
- Loggers can be started immediately on a button press, delayed to a specific time or delayed to specific temperature reading

DISPLAY DATA
- Data can be displayed on screen in tabular or graphical format
- You can switch between these views by pressing the gfx / txt buttons at the bottom-left of your screen

ON-SCREEN ICONS
- When this EasyLog cube is spinning in the top-left corner your logger is logging
- High/Low Alarm indicators are displayed at the top of your screen
- This icon indicates that your battery is low and will need to be replaced soon

STOP/START LOGGING & MUTE ALARM
- By pressing the button, you can stop your logger, or view logger settings. If you have already stopped logging, this option will change to 'Start Logging'. The audible alarm can be muted from this menu if enabled

SUMMARY DATA
- Summary screen displays max/min log and last log. Reset function clears summary if required
- These screens can be reached by pressing the i button

LOCKED MODE
- When in locked mode - an option during PC set-up - the logger can only be stopped and re-started using a PC loaded with the unit's configuration software

LOGGER SETTINGS
- To view a summary of the logger's settings press the button, then click 'Logger Settings'

POP-UP MESSAGES
- A message will overlay the screen - if there is an issue - the next time a button is pressed, e.g. if the logger is running low on memory

Please note that screens may vary slightly depending on model. EL-GFX-1 screens shown.

BATTERY INFORMATION

We recommend that you replace the batteries every 4 months, or prior to logging critical data.

Replacement
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 x 3.6V 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.

Passivation
If left unused for extended periods of time, the Lithium batteries 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.

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MEASUREMENT ACCURACY
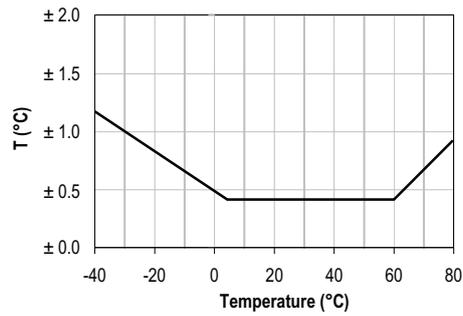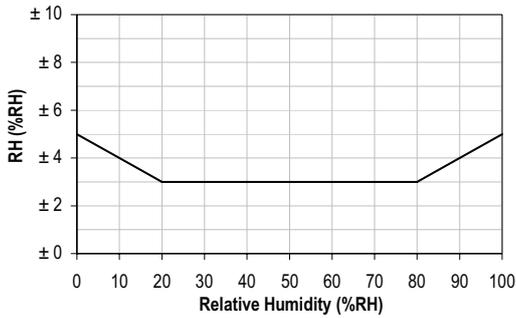
Module House
Whiteparish, Salisbury
Wiltshire SP5 2SJ
UK
T +44 (1794) 884567
F +44 (1794) 884616
E sales@lascar.co.uk

4258 West 12th Street
Erie
PA 16505
USA
T +1 (814) 835 0621
F +1 (814) 838 8141
E us-sales@lascarelectronics.com

8th Floor, China Aerospace Centre
143 Hoi Bun Road
Kwun Tong, Kowloon
HONG KONG
T +852 2797 3219
F +852 2343 6187
E saleshk@lascar.com.hk

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