EL-GFX-TC

K, J & T-type Thermocouple Data Logger with Graphic Screen

ORDERING INFORMATION

Standard Data Logger (Data Logger, 2 x Batteries, USB cover, Mounting Clip, TC probe, Micro USB cable)	EL-GFX-TC
Replacement Battery (2 Required)	BAT 3V6 ½AA

FEATURES

- Rugged and robust construction
- Compatible with K, J and T type Thermocouples
- Logging rates between 2 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 triggered start mode
- 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-TC standalone USB data logger measures and stores up to 252,928 temperature readings from J, K, or T-type thermocouple input, at a resolution of 0.1ºC.

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 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
Probe measurement range	K-type	-200 (-328)		+1350 (+2462)	°C (°F)
	J-type	-200 (-328)		+1190 (+2174)	°C (°F)
	T-type	-200 (-328)		+390 (+734)	°C (°F)
Internal resolution			0.1 (0.1)*		°C (°F)
Accuracy (overall error)			±0.5 (±0.9)**		°C (°F)
Logging rate		Every 2 seconds		Every 1 hour	Time
Operating temperature range***		-10 (-14)		+40 (+104)	°C (°F)
2 x ½AA 3.6V Lithium Battery Life			4†		Months

* Above 999.9°C/F display becomes 1°C. Internal resolution remains at 0.1°C/F.
** At 25°C. See internal accuracy curve on page 4. Important - quoted accuracy is for the data logger only when measuring within the specified operating temperature. Thermocouple error is not included and should also be taken into consideration.
*** Operating temperature applies to the data logger module only. Please consult the probe manufacturer for operating temperature of thermocouple.
† At 25°C and 10 minute logging rate with no alarm LEDs or sounder and minimal LCD use.

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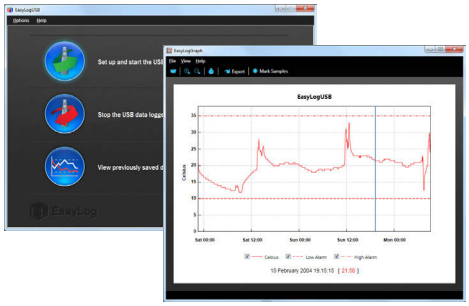
EL-WIN-USB (CONTROL SOFTWARE)

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 2 seconds and 1 hour)
- High and low temperature alarms
- Immediate, delayed, push-button or temperature 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)

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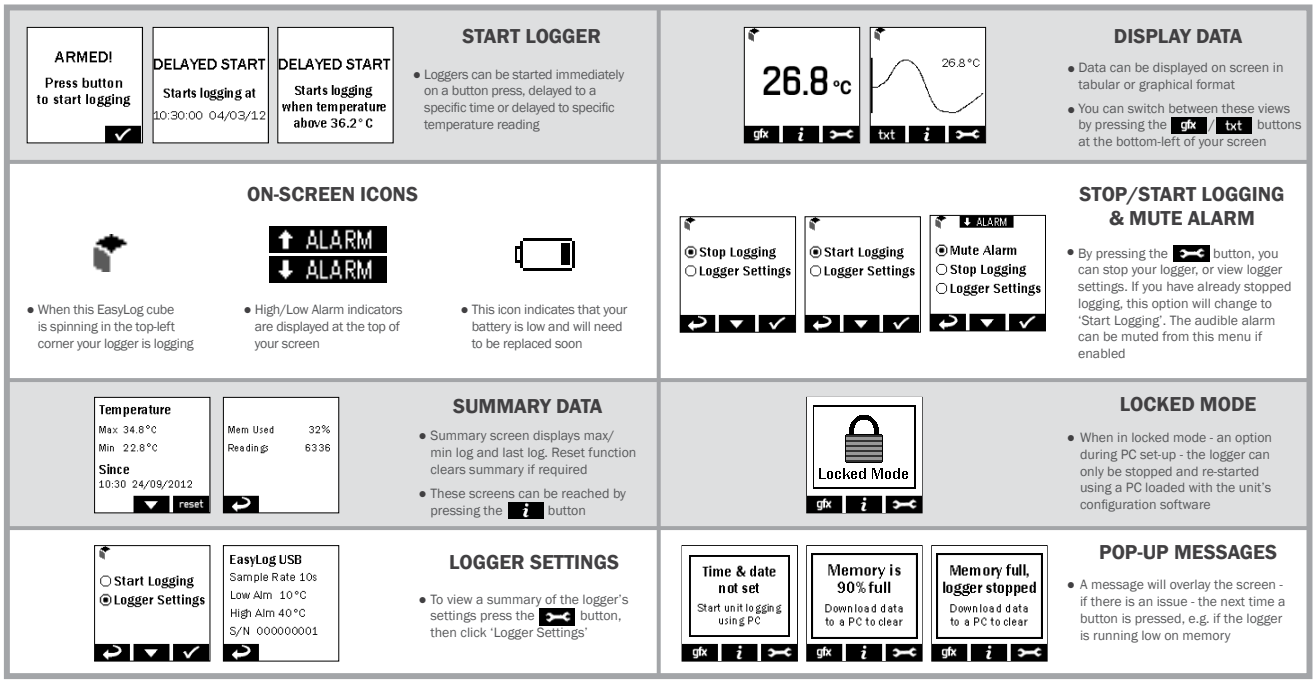
MENU BUTTON FUNCTIONS AND LED SCREEN INDICATION



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-TC 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-TC 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-TC 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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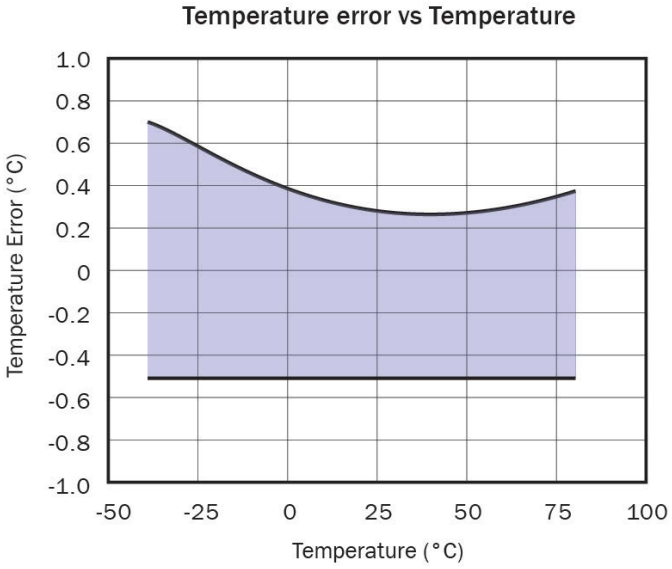
INTERNAL TEMPERATURE ACCURACY
(Cold-junction Compensation)



CAUTION

The K-Type thermocouple probe supplied with the EL-GFX-TC are not electrically isolated from the thermocouple junction, to give a faster response.

However depending upon application it may be necessary to use an electrically isolated thermocouple probe to avoid ground loops, and/or situations where the probe may come into contact with conductors that are at different electrical potentials.

Where doubt exists Lascar recommends that electrically isolated probes are always used.

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