EL-USB-CO Carbon Monoxide Data Logger

DATAQ®
INSTRUMENTS

PLEASE NOTE: The EL-USB-CO is a professional measuring instrument, designed to record Carbon Monoxide (CO) gas levels for later analysis. It is not an alarm/safety/warning device and should not be used in this capacity.

The EL-USB-CO data logger measures and stores up to 32,510 Carbon Monoxide (CO) readings over a 0 to 1000 ppm measurement range and -10 to +40°C (14 to +104°F) operating temperature range. The user can easily set up the logging rate and start time, and download the stored data by plugging the data logger into a PC's USB port and running the purpose-designed software. The data can then be graphed, printed and exported to other applications. The data logger is supplied complete with a long life lithium battery. Data is stored in non-volatile memory and is retained when the battery is empty. A bright red LED will flash and a buzzer can sound when a preset warning level has been exceeded.

Features

- 0 to 1000 ppm CO measurement range
- Stores up to 32,510 Measurements
- User-Programmable Warning Threshold with Bright Visual and Audible Warning
- USB Interface for Set-up and Data Download
- Expected sensor life: 4 years
- Replaceable Internal Lithium Battery

Programmable Elements

- Logger Name
- Logging Rate (10s, 30s, 1m, 5m)
- Warning Threshold
- Start Date and Start Time

Record Times

Sampling Interval	Record Times
1 sample every 10 seconds	3.5 days
1 sample every 30 seconds	11 days
1 sample every minute	22 days
1 sample every 5 minutes	3.5 months

Audible Warning

The audible warning will sound once per second when the warning threshold has been exceeded. To disable the warning, remove the cap from the data logger.

The audible warning will sound once every 60 seconds when there is a low battery condition. This indicates that the battery must be replaced.

LED Flashing Modes

EL-USB-CO features a red and a green LED. By default "Hold" is disabled. In this mode the red LED will no longer continue to flash after the logged reading has returned to normal from an alarm condition. Hold can be turned on via the control software. In this mode the red LED that indicates an alarm condition will continue to flash, even after the logged reading has returned to normal. This feature ensures that the user is notified that an alarm level has been exceeded, without the need to download the data from the logger.

The LEDs on an EL-USB-CO will flash in one of the following ways, assuming hold of the warning threshold has been turned off in the EL-WIN-USB control software:
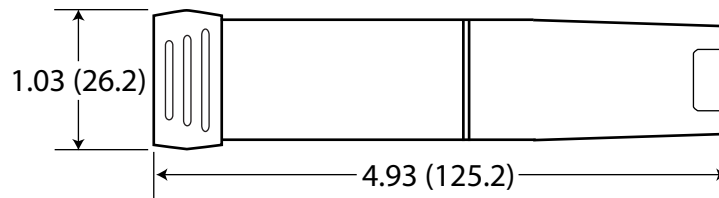
		Green single flash (10 seconds) The data logger is currently logging. No alarm.
		Green single flash (20 seconds) The data logger is currently logging. No alarm. However, the battery is low and should be replaced before logging important data.
		Green single flash (30 seconds) The data logger is not currently logging, but is primed to start at a later date and time (delayed start).
		Green double flash (20 seconds) The data logger is full and has stopped logging. No alarm.
		Red single flash (10 seconds) The data logger is currently logging. Low alarm.
		Red/Green single flash (20 seconds) The data logger is full and has stopped logging. Alarm (high, low or both).
		No LEDs Flash The data logger is stopped, the battery is dead, or there is no battery.

Red LED   Green LED

Dimensions

1.03 (26.2)

4.93 (125.2)

Dimensions shown are inches (mm)

Specifications

Specification	Minimum	Typical	Maximum	Unit
Measurement Range	0		1000	ppm CO
Internal Resolution		0.5		ppm CO
Accuracy (error)		±6		% of reading
Repeatability		±2		% of reading
Decay of reading over time			5	% of reading/year
Expected sensor life		4		years
Response time (to reach 90%)		1		minute
Logging Rate	every 10s		every 5min	-
Memory Capacity			32,510	samples
Operating Temperature Range (15-90%RH, non-condensing)	-10 (14)		+40 (104)	°C (°F)
Operating pressure range	900		1100	mbar
Battery Life			3	month

* with battery supplied, 10 minute logging rate, 25°C ambient temperature, audible warning disabled, reading <10 ppm CO
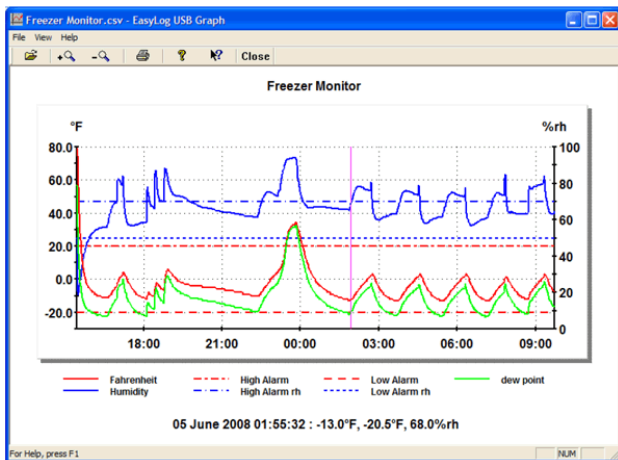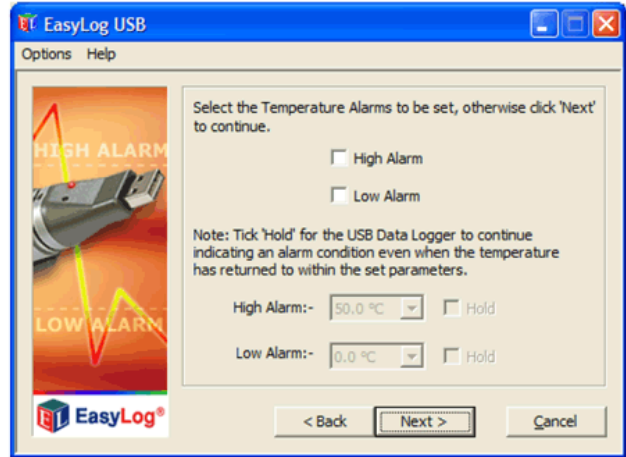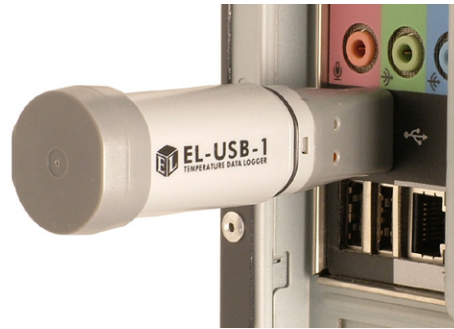
EL-USB-CO Ordering Information

Description	Order Number
Carbon Monoxide Data Logger Includes EL-USB-CO data logger, software on CD, and battery.	**EL-USB-CO**
Battery Replacement battery.	**BAT 3V6**

Easy to Program and Deploy

Getting an EasyLogger product ready to acquire data is simple:

1. Remove the protective USB cover.

2. Plug the instrument into any convenient USB port (image 1).

3. Program the data logger with the provided EasyLog software (image 2):

   • Give the logger a unique name (convenient when deploying multiple units).

   • Select the required sample rate.

   • Select high and/or low alarm thresholds.

   • Select the specific date and time to begin logging.

Now remove the data logger from the USB port, replace the USB cover, and deploy the instrument wherever you need it.

Easy to Upload and Analyze Data

Whether you want to review stored data using the supplied application or using Microsoft Excel, getting meaningful results from recorded data is fast and easy:

1. Remove the protective USB cover.

2. Plug the instrument back into the PC's USB port.

3. Use EasyLog software to stop recording, access the instrument's stored data, and save it to a file that you name on the PC, all in one easy operation. The file format is Excel-compatible.

4. Immediately EasyLog's Graph utility is enabled to display all the stored data in one compressed view.

5. A cursor allows you to determine signal magnitude and time and date of acquisition for any value, and a magnifier utility allows you to zoom in for a closer look over any range – Easy and fast.

6. For more custom analysis and report generation, simply import the stored data file to Microsoft Excel for virtually unlimited flexibility in how you view and interpret your results.

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 "Jump" to go to the product's web page.

Measurement		Model EL-USB												
Function	Range	-1	-1-RCG	-1-PRO	-2	-2+	-2-LCD	-2-LCD+	-3	-4	-5	-TC	-TC-LCD	-CO
Temperature	-35 to +80°C (-31 to +176°F)	Jump												
Temperature	-20 to +60°C (-4 to +140°F)		Jump											
High Temperature	-40 to +125°C (-40 to +257°F)			Jump										
Humidity, temperature, dew point	0 to 100% RH -35 to +80°C (-31 to +176°F)				Jump	Jump	Jump	Jump						
Voltage	0 to 30 VDC								Jump					
Process current	4 to 20 mA									Jump				
Event, State, Count	3-28 VDC										Jump			
Thermocouple (no display)	-130 to +900°C (J) -200 to +1300°C (K) -200 to +350°C (T)											Jump		
Thermocouple (with display)	-130 to +900°C (J) -200 to +1300°C (K) -200 to +350°C (T)												Jump	
Carbon monoxide	0 to 1000 ppm													Jump

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Data Acquisition Product Links
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