

EL-USB-RT

Real-time USB Temperature & Humidity Monitor

ORDERING INFORMATION

Standard Data Logger EL-USB-RT
(Data capture device, Software on CD)

FEATURES

- -20 to +70 °C (-4 to +158 °F) measurement range
- 0 to 100%RH measurement range
- Dew point indication via Windows control software
- USB interface
- User-programmable alarm thresholds for RH% & T
- Supplied with Windows Control Software

When plugged into the USB port of a PC installed with the purpose designed software under Windows 2000, XP & Vista (32 bit only), EL-USB-RT measures temperature and relative humidity from -20 to +70 °C (-4 to +158 °F) and 0 to 100%RH. The PC displays the temperature, humidity and dew point (the temperature at which water vapor present in the air begins to condense) in real-time and saves it to a file which can store up to 7 day's worth of data. This data file is overwritten at the beginning of each new logging session. The software provides the option for the user to save the data file permanently to the hard-drive. Temperature, relative humidity and dew point can be graphed, printed and exported to other applications.



Specifications		Minimum	Typical	Maximum	Unit
Temperature	Measurement range*	-20 (-4)		+70 (+158)	°C (°F)
	Repeatability		±0.3 (±0.6)		°C (°F)
	Accuracy (overall error)		±1.5 (±3)**		°C (°F)
	Response time		20	30	sec
Relative Humidity	Measurement range	0		100	%RH
	Repeatability (short term)		±0.5		%RH
	Accuracy (overall error) (20-80%RH)		±4.5		%RH
	Response time		5		sec
	Long term stability		1		%RH/Yr
Dew Point	Accuracy (overall error) (25 °C, 40-100%RH)		±2.5 (±5)		°C (°F)
Logging rate			1		sec
Operating temperature range		-20 (-4)		+70 (+158)	°C (°F)

* Range to -40 to +90 °C (-40 to +194 °F) for occasional use

** Stated accuracy correct following 15 minutes temperature stabilisation in environment

EL-USB-RT

Real-time USB Temperature & Humidity Monitor

WINDOWS CONTROL SOFTWARE

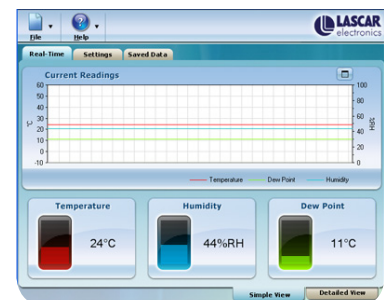
Easy to install and use, the control software runs under Windows 2000, XP & Vista (32 bit only). It provides an environment where the user can view the current temperature and humidity and graph either the current data file or previously saved files. The software can also show the current temperature and humidity in the notification area within the Windows tool-bar. Right-clicking on the EL-USB-RT icon in the notification area enables the user to access the full functionality of the software. Users can set up high and low alarms within the software which can send emails, text alerts or audible alarms via the PC's internal speaker.

The software allows the following parameters to be configured:

- °C, °F
- High and low alarms for temperature and humidity
- E-mail alert / data set settings
- Text message alert settings
- Mute PC's alarm beep
- Show readings / icon in notification bar

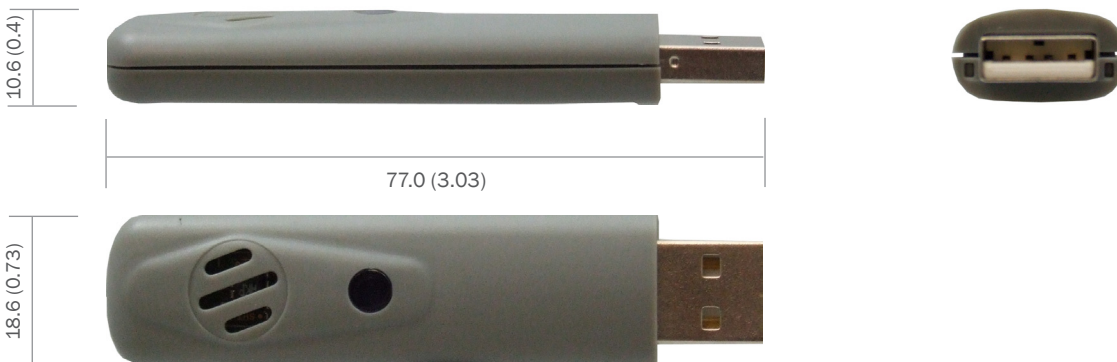
The latest version of the control software may be downloaded free of charge from

www.lascarelectronics.com



DIMENSIONS

All dimensions in mm (inches)



CAUTION

Exposure of the internal sensor to chemical vapours such as those produced by some plastics and foamed materials may interfere with the internal sensor and cause inaccurate readings to be logged, therefore ensure that the logger is used in a ventilated area i.e. air exchange is allowed.

Exposure to extreme conditions or chemical vapours will require the following reconditioning procedure to bring the internal sensor back to calibration state.

80 °C (176 °F) at < 5% RH for 36h (baking) followed by 20-30 °C (70-90 °F) at >74%RH for 48h (re-hydration)

High levels of pollutants may cause permanent damage to the internal sensor.

EL-USB-RT

Real-time USB Temperature & Humidity Monitor

THE EASYLOG USB RANGE

Each EL-USB data logger features the direct-to-USB connection and easy-to-use functionality that the range is known for. The range comprises of the following data loggers:

Part No	Function	Range	Accuracy (overall error)		Readings	Battery	Battery Life*
			Typ.	Max.			
EL-USB-1	Temperature	-35 to +80 °C (-31 to +176 °F)	±1°C (±2°F)		16,382	3.6V ½AA	1 Year
EL-USB-1-LCD	Temperature with LCD	-35 to +80 °C (-31 to +176 °F)	±0.5°C (±1°F)	±1.5°C (±3°F)	16,382	3.6V ½AA	1 Year
EL-USB-1-PRO	High Temperature	-40 to +125 °C (-40 to +257 °F)	±0.2°C (±0.4°F)	±0.5°C (±1°F)	32,510	3.6V ¾AA	3 years
EL-USB-1-RCG	Temperature with rechargeable battery	-20 to +60 °C (-4 to +140 °F)	±1°C (±2°F)		32,510	Lithium Ion	1 month (rechargeable)
EL-USB-2	Temperature, humidity & dew point	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.5°C (±1°F) ±3%RH	±2°C (±4°F) ±6.0%RH	16,382	3.6V ½AA	1 year
EL-USB-2+	Increased accuracy temperature, humidity & dew point	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.3°C (±0.6°F) ±2.0%RH	±1.5°C (±3°F) ±4.0%RH	16,382	3.6V ½AA	1 year
EL-USB-2-LCD	Temperature, humidity & dew point with LCD	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.5°C (±1°F) ±3.0%RH	±2°C (±4°F) ±6.0%RH	16,379	3.6V ½AA	1 year
EL-USB-2-LCD+	Increased accuracy temperature, humidity & dew point with LCD	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.3°C (±0.6°F) ±2.0%RH	±1.5°C (±3°F) ±4.0%RH	16,379	3.6V ½AA	1 year
EL-USB-3	Voltage	0 to 30V d.c.	±1%		32,510	3.6V ½AA	1 year
EL-USB-4	Current loop	4 to 20mA	±1%		32,510	3.6V ½AA	1 year
EL-USB-5	Counter, Event & State	N/A		±3 secs/24 hrs	32,510	3.6V ½AA	1 year
EL-USB-TC	Thermocouple (J, K and T-type) K-type probe included	-200 to +1350°C (-328 to +2462°F) (K-type) -200 to +1190°C (-328 to +2174°F) (J-type) -200 to +390°C (-328 to +734°F) (T-type)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
EL-USB-TC-LCD	Thermocouple with LCD (J, K and T-type) K-type probe included	-200 to +1350°C (-328 to +2462°F) (K-type) -200 to +1190°C (-328 to +2174°F) (J-type) -200 to +390°C (-328 to +734°F) (T-type)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
EL-USB-CO	Carbon monoxide	0 to 1000ppm NOT A LIFE SAVING DEVICE	±6ppm		32,510	3.6V ½AA	3 months
EL-USB-CO300	Carbon monoxide	0 to 300ppm NOT A LIFE SAVING DEVICE	±4ppm		32,510	3.6V ½AA	3 months
EL-USB-LITE	Low cost temperature	-10 °C to +50 °C (+14 to +122 °F)	±1°C (±2°F)		4,080	CR1620 Lithium coin cell	1 month
EL-USB-RT	Real-time temperature & humidity monitor	-20 to +70 °C (-4 to +158 °F)	±1.5°C (±3°F) ±4.5%RH		7 days	N/A	N/A

*Depending on logging rate, ambient temperature, and use of alarm LED

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



www.lascarelectronics.com

