

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 and Vista, 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

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WINDOWS CONTROL SOFTWARE

Easy to install and use, the control software runs under Windows 2000, XP (Home and Professional Editions) and Vista (32-bit). 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)



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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 14 data loggers as detailed in the following table:

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-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-2	Temperature, humidity & dew point	-35 to +80 °C (-31 to +176 °F) 0 to 100%RH	±0.5°C (±1°F)	±2°C (±4°F)	16,382	3.6V ½AA	1 year
			±3%RH	±6.0%RH	16,382		
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)	±1.5°C (±3°F)	16,382	3.6V ½AA	1 year
			±2.0%RH	±4.0%RH	16,382		
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)	±2°C (±4°F)	16,379	3.6V ½AA	1 year
			±3.0%RH	±6.0%RH	16,379		
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)	±1.5°C (±3°F)	16,379	3.6V ½AA	1 year
			±2.0%RH	±4.0%RH	16,379		
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-TC	Thermocouple (J, K and T-type) K-type probe included	-200 to +1350°C (-328 to +2462°F) (K-type)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
		-200 to +1190°C (-328 to +2174°F) (J-type)					
		-200 to +390°C (-328 to +734°F) (T-type)					
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)	±1°C (±2°F)		32,510	3.6V ½AA	6 months
		-200 to +1190°C (-328 to +2174°F) (J-type)					
		-200 to +390°C (-328 to +734°F) (T-type)					
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

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