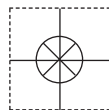


1 YEAR
WARRANTY



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OM-EL-USB-TP-LCD
TEMPERATURE PROBE DATA LOGGER WITH
LCD DISPLAY AND USB INTERFACE



omega.com info@omega.com

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The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.

OM-EL-USB-TP-LCD

Temperature Probe Data Logger with LCD and USB Interface

ORDERING INFORMATION

Standard Data Logger (Data Logger, 1m Thermistor Probe, Software on CD and Battery)	OM-EL-USB-TP-LCD
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Replacement Battery (2 Required)	OM-EL-BATT
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FEATURES

- -40 to +125 °C (-40 to +257 °F) probe measurement range
- High contrast LCD with temperature display
- USB interface for set-up and data download
- User-programmable alarm thresholds
- Status indication via red and green LEDs
- Immediate, delayed and push-to-start logging
- Supplied with 1.0m type 2 sensor probe
- Probe length can be easily extended with an extension cable
- Supplied complete with replaceable lithium battery and Windows control software



This standalone data logger measures and stores up to 32,510 temperature readings from the supplied thermistor probe which is attached via the socket at the base of the unit. 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 under Windows XP, Vista, 7 or 8. Data can then be graphed, printed and exported to other applications.

The OM-EL-USB-TP-LCD features an LCD and push-button which allows the user to cycle through the most recent, highest and lowest stored temperature readings. The data logger is supplied complete with a long-life lithium battery, which can typically allow logging for up to 6 months.

Specifications	Minimum	Typical	Maximum	Unit
Supplied probe measurement range	-40 (-40)		+125 (+257)	°C (°F)
Operating temperature range *	-10 (+14)		+40 (+104)	°C (°F)
Resolution (internal and displayed)		0.5 (1)		°C (°F)
Accuracy (logger error)		±0.1 (±0.2)		°C (°F)
Logging rate	every 1 s		every 12 hr	-
1/2AA 3.6V Lithium Battery Life		6**		Month

* Operating temperature applies to the data logger unit only.

** Depending on sample rate, ambient temperature and use of LCD.

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OM-EL-USB-TP-LCD

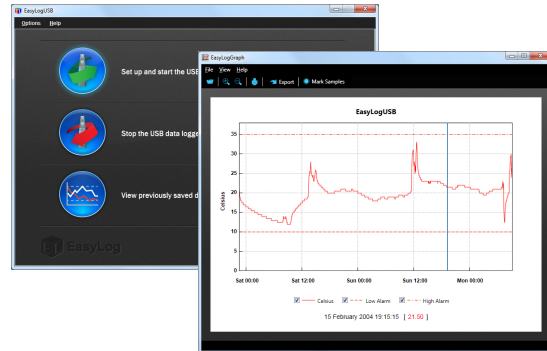
Temperature Probe Data Logger with LCD and USB Interface

WINDOWS CONTROL SOFTWARE

Omega's USB control software is supplied free of charge with each data logger. Easy to install and use, the control software runs under Windows XP, Vista, 7 or 8. The software is used to set-up the data logger as well as download, graph and export data to Excel.

The software allows the following parameters to be configured:

- Logger name
- °C, °F
- Logging rate (1s, 10s, 30s, 1m, 5m, 30m, 1hr, 6hr, 12hr)
- High and low alarms
- Immediate, delayed and push-to-start logging
- Display off, on for 30 seconds after button press, or permanently on
- Data rollover (Allows unlimited logging periods by overwriting the oldest data when the memory is full)



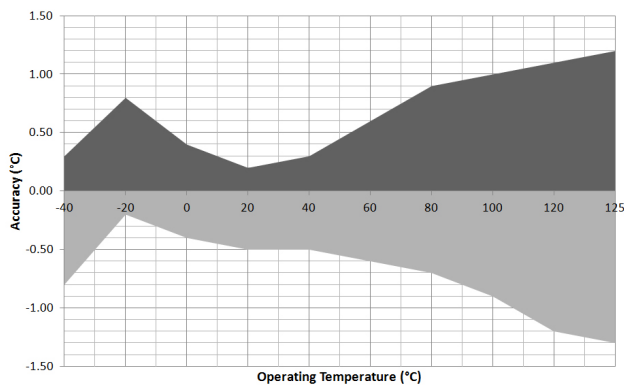
The latest version of the control software may be downloaded free of charge from www.omega.com

THERMISTOR PROBE

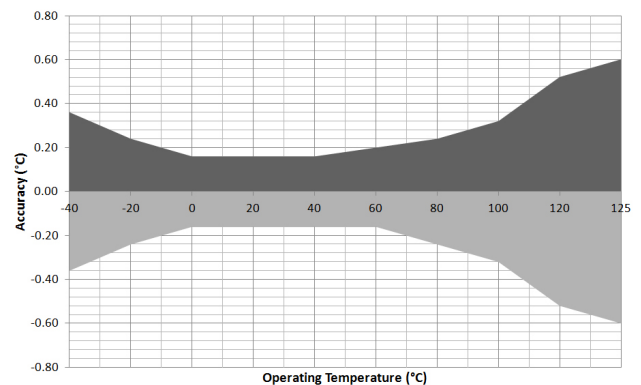
The probe supplied with the OM-EL-USB-TP-LCD uses a precision thermistor to sense the temperature. Alternative lengths and probe options are available.

Alternatively, the probe length may be extended by the use of a suitable extension cable. We recommend twisted pair with high quality 3.5mm jack socket/plugs for best results.

PROBE MEASUREMENT ACCURACY



Supplied 'Type 2' Thermistor Probe
Part number: OM-EL-PROBE-TP-2-1M



Optional 'Type A' Thermistor Probe
Part number: OM-EL-PROBE-TP-A-3M

ADDITIONAL OPTIONAL PROBES

1.0m Thermistor Probe Type 2 (Included)	OM-EL-PROBE-TP-2-1M
3.0m Thermistor Probe Type A	OM-EL-PROBE-TP-A-3M
NTC Thermistor Probe in Glycol Solution	OM-EL-PROBE-TP-A-GLY-3M

THERMISTOR PROBE ACCESSORIES

1.5m Probe Extension Cable	OM-EL-PROBE-EXT-CAB-1.5M
5.0m Probe Extension Cable	OM-EL-PROBE-EXT-CAB-5M
10.0m Probe Extension Cable	OM-EL-PROBE-EXT-CAB-10M

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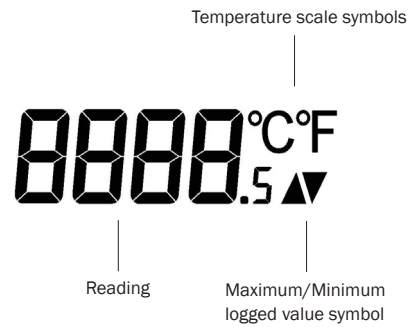
OM-EL-USB-TP-LCD

Temperature Probe Data Logger with LCD and USB Interface

DISPLAY AND STATUS FUNCTIONS

The OM-EL-USB-TP-LCD features a high contrast LCD and two LEDs. The LCD shows logged temperature values using seven segment numbers, along with symbols. The LCD can also show information regarding the logging status - see LCD INDICATION below.

Three different functions are available on the display - most recent logged temperature, maximum logged temperature and minimum logged temperature. The push button is used to cycle through the functions. In addition, logging and alarm status are shown using two high intensity LEDs.



LCD INDICATION

Display	Logger Status	Explanation
	Delayed Start	This is shown when the logger is set to start at a specific data and time*
	Push to Start	This is shown when the logger is setup for "Push to start" logging
	Logging	This is shown when the logger is running in "LCD off" mode, and the button is pressed. The display clears again after three seconds
	Stopped	If the logger has not been set to log and the button is pressed, three dashes are displayed for three seconds
	Probe has been disconnected	The flashing message 'Prob', followed by a number, or letter, will be displayed if the logger is logging and the probe becomes disconnected. The number confirms the type of probe that should be connected

* If the logger is set to "LCD off" or "LCD on for 30 seconds" mode, then this will only be shown after the button is pressed. Otherwise the display will remain blank.

OM-EL-USB-TP-LCD

Temperature Probe Data Logger with LCD and USB Interface

LED FLASHING MODES

OM-EL-USB-TP-LCD features two LEDs that indicate the logging, battery and alarm status:

- The first LED flashes red to indicate that the OM-EL-USB-TP-LCD is in an alarm condition. It will flash when the logged temperature has exceeded a Low or High alarm level.
- The second LED flashes green to indicate that the OM-EL-USB-TP-LCD is not in an alarm condition.

Hold is enabled by default, which forces the logger to continue flashing the red LED after an alarm, even when the temperature 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.

Hold can be turned off via the control software. The red LED will then only flash whilst the logger is in an alarm condition. When the temperature returns to normal, the green LED will flash.

Additional LED modes are explained below:

 <p>Green LED Red LED</p>		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 single flash (20 seconds) The data logger is currently logging. Low alarm. However, the battery is low and should be replaced before logging important data.
		Red double flash (10 seconds) The data logger is currently logging. High alarm.
		Red double flash (20 seconds) The data logger is currently logging. High alarm. However, the battery is low and should be replaced before logging important data.
		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 empty or there is no battery fitted.
	Red triple flash (10 seconds) The data logger is currently logging, but the probe has been disconnected.	

OM-EL-USB-TP-LCD

Temperature Probe Data Logger with LCD and USB Interface

DIMENSIONS

All dimensions in mm (inches)



BATTERY REPLACEMENT

We recommend that you replace the battery every 6 months, or prior to logging critical data.

The OM-EL-USB-TP-LCD does not lose its stored readings when the battery is discharged or when the battery is replaced; however, the data logging process will be stopped and cannot be re-started until the battery has been replaced and the logged data has been downloaded to a PC.

Check with your supplier that the battery you are ordering is 'press fit' and is not fitted with solder tags. Before replacing the battery, remove the OM-EL-USB-TP-LCD from the PC.

Note:

Leaving the OM-EL-USB-TP-LCD plugged into the USB port for longer than necessary will cause some of the battery capacity to be lost.

WARNING

Handle lithium batteries carefully, observe warnings on battery casing. Dispose of in accordance with local regulations.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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