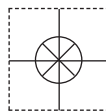


1 YEAR
WARRANTY



Ω OMEGA® **User's Guide**



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OM-EL-GFX-DTP
DUAL CHANNEL TEMPERATURE PROBE
DATA LOGGER WITH GRAPHIC SCREEN



omega.com info@omega.com

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OM-EL-GFX-DTP

Dual Channel Temperature Probe Data Logger with Graphic Screen

ORDERING INFORMATION

Standard Data Logger OM-EL-GFX-DTP
(Data Logger, 2 x Batteries, USB cover, Mounting Clip, 2 x 1m Thermistor probes, Micro USB cable)

Replacement Battery OM-EL-BATT
(2 Required)

FEATURES

- Rugged and robust construction
- Dual channel -40 to +125 °C (-40 to +257 °F) probe measurement range
- Logging rates between 2 seconds and 1 hour
- Stores over 250,000 readings per channel
- On screen menu to start, stop, review and restart the logger in the field
- Micro USB interface for PC based set-up and data download
- 3.5mm jack socket for connection of supplied thermistor probes
- Supplied with 2 x 1.0m type 2 sensor probes
- Immediate, delayed, push-button or temperature triggered start mode
- Graphic LCD shows real-time readings, data summary, graph and current status
- User set audible alarm
- Highly visible confidence/alarm LEDs
- Supplied with user replaceable ½ AA batteries



This standalone USB data logger measures and stores over 250,000 temperature readings from two thermistor probes over a -40 to +125 °C (-40 to +257 °C) range at a resolution of 0.1°C.

Using the Windows control software (available as a free download from www.omega.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 (Part Number: OM-EL-BATT).

Specifications	Minimum	Typical	Maximum	Unit
Supplied probe measurement range	-40 (-40)		+125 (+257)	°C (°F)
Internal resolution		0.1 (0.2)		°C (°F)
Accuracy (logger error)		±0.1 (±0.2)*		°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

* At 25 °C. See probe accuracy curve on page 4. Important - quoted accuracy is for the data logger only when measuring within the specified operating temperature. Thermistor error is not included and should also be taken into consideration.

** At 25 °C and 10 minute logging rate with no alarm LEDs or sounder and minimal LCD use.

www.omega.com

OM-EL-GFX-DTP

Dual Channel Thermistor Probe Data Logger with Graphic Screen

OM-EL-WIN-USB (CONTROL SOFTWARE)

Omega's USB control software is available to download from www.omega.com. Easy to install and use, the control software runs under Windows XP, Vista, 7 and Windows 8. 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 (customizable 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.omega.com

DIMENSIONS

All dimensions in mm (inches)



www.omega.com

OM-EL-GFX-DTP

Dual Channel Thermistor Probe Data Logger with Graphic Screen

MENU BUTTON FUNCTIONS AND LED SCREEN INDICATION

ARMED! Press button to start logging 	DELAYED START Starts logging at 10:30:00 04/03/12	DELAYED START Starts logging when temperature above 36.2°C	START LOGGER <ul style="list-style-type: none">Loggers can be started immediately on a button press, delayed to a specific time or delayed to specific temperature reading	 26.8°C	DISPLAY DATA <ul style="list-style-type: none">Data can be displayed on screen in tabular or graphical formatYou can switch between these views by pressing the / buttons at the bottom-left of your screen
ON-SCREEN ICONS <ul style="list-style-type: none"> When this EasyLog cube is spinning in the top-left corner your logger is logging High/Low Alarm indicators are displayed at the top of your screen This icon indicates that your battery is low and will need to be replaced soon				STOP/START LOGGING & MUTE ALARM <ul style="list-style-type: none">By pressing the button, you can stop your logger, or view logger settings. If you have already stopped logging, this option will change to 'Start Logging'. The audible alarm can be muted from this menu if enabled	
 Temperature Max 34.8°C Min 22.8°C Since 10:30 24/09/2012 			SUMMARY DATA <ul style="list-style-type: none">Summary screen displays max/min log and last log. Reset function clears summary if requiredThese screens can be reached by pressing the button	 Locked Mode 	
 EasyLog USB Sample Rate 10s Low Alm 10°C High Alm 40°C S/N 000000001 			LOGGER SETTINGS <ul style="list-style-type: none">To view a summary of the logger's settings press the button, then click 'Logger Settings'	POP-UP MESSAGES <ul style="list-style-type: none">A message will overlay the screen - if there is an issue - the next time a button is pressed, e.g. if the logger is running low on memory	
 Time & date not set Start unit logging using PC 			 Memory is 90% full Download data to a PC to clear 		
 Memory full, logger stopped Download data to a PC to clear 					

Please note that screens may vary slightly depending on model. OM-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 OM-EL-GFX-DTP 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 OM-EL-GFX-DTP 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 OM-EL-BATT lithium batteries. Do not mix battery types and do not mix new and old batteries. Before replacing the batteries, unplug the OM-EL-GFX-DTP 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.

OM-EL-GFX-DTP

Dual Channel Thermistor Probe Data Logger with Graphic Screen

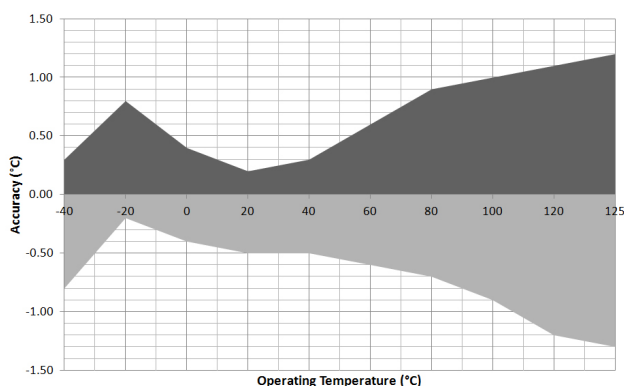
THERMISTOR PROBE

The probes supplied with the OM-EL-GFX-DTP uses a precision thermistor to sense the temperature. Alternative lengths and probe options are available.

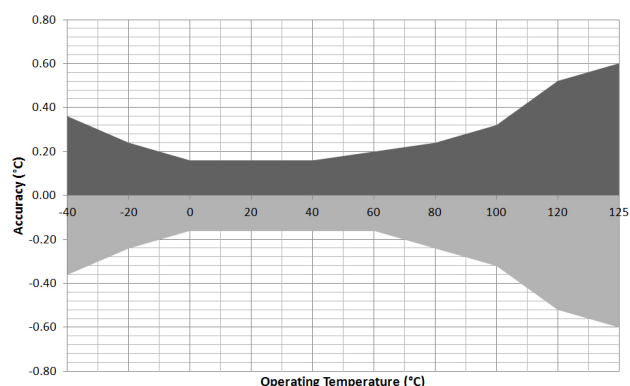
Alternatively, the probe length may be extended by the use of a suitable extension cable. We recommend twisted pair with high quality 3.5mm jack socket/plugs for best results.

Note: The thermistor is externally isolated from the probe tip.

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

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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