

# Panel Mount and Portable Dataloggers



OM-EL Series  
**\$166**  
 Basic Unit

- ✓ 8 Bit and 12 Bit Models
- ✓ Panel Mount and Portable Versions
- ✓ Thermocouple, 100  $\Omega$  Pt RTD, pH, dc Voltage, dc Current, Pulse Inputs
- ✓ Infrared Communications Link (Model OM-EL-2-IR)
- ✓ Up to 3 Year Battery Life
- ✓ Record up to 8000 Readings

OMEGA's OM-EL Series is a family of panel mount and portable dataloggers with up to 12 bit accuracy and resolution. The family consists of both panel mount and enclosed portable models and also an IR (infrared) remote controllable version of the enclosed portable model. Available accessories include panel mount, handheld and PC infrared communication links and accompanying control software.

All of the OM-EL Series dataloggers feature a high contrast LCD display, up to 3 years battery life, adjustable sampling rate (variable between 5 seconds and 12 hours), data storage up to 8000 readings, alarm modes, delayed, automatic or push to start. All 8 bit (256 steps) models have an integral sensor, making temperature measurements particularly easy.

The OM-EL-1 (8 bit) and OM-EL-1-12BIT (12 bit) panel mount modules are compact and easy to use LCD dataloggers, capable of measuring, displaying, recording and controlling a variety of parameters with the addition of a suitable sensor. Ideally suited for incorporation into new and existing measurement systems, readings can be stored and processed in the panel meter, allowing full control of the

monitored process. The OM-EL-WIN Windows compatible (3.1 and Windows 95) software ensures an effortless set-up of one or more of the OM-EL-1 or OM-EL-1-12BIT modules and controls the transfer of logged data to the PC for further analysis. Although perfectly suited to self powered applications, up to eight OM-EL-1 modules can be linked together in a network to form a complete control and measurement system.



Model OM-EL-1 Panel Mounted Datalogger

Shown actual size



Model OM-EL-2 Enclosed Portable Datalogger

Model OM-EL-LITE is an ultra compact 8 bit datalogger featuring on board sensor and supplied with mounting bezel and splash proof case for extra environmental protection. It is used in conjunction with the OM-EL-WIN-LITE control software for Windows. The OM-EL-LITE has a temperature range of 14 to 122°F and an accuracy of  $\pm 2^\circ\text{F}$ .

Model OM-EL-2-IR is a multi-function logger capable of recording temperature (deg. C or F), pH, voltage or current. Model OM-EL-2-IR has an infrared communications interface in addition to standard RS-232 communications and can be remotely programmed and downloaded using the OM-EL-HL handheld programmer. Designed to perform simple or sophisticated data logging with the minimum of cost and complexity, the logger has a built-in LCD display and an internal battery which can last up to 3 years, depending on sample rate and parameters being measured. Sample intervals are user-variable between 5 seconds and 12 hours with a maximum capacity of over 8000 readings.

Models OM-EL-LINK-IR and OM-EL-PANEL-IR are infrared communications modules that allow easy construction of an IR link for OM-EL Series dataloggers or other systems where remote control is required. These transmit/receive modules achieve half duplex data transfer at distances up to 4 feet. Model OM-EL-PANEL-IR requires a 5 Vdc power supply. Model OM-EL-LINK-IR is self-powered from the PC's RS-232 port.

Model OM-EL-HL is a low cost, compact, handheld configuration and data collection tool for OM-EL Series dataloggers. Model OM-EL-HL has both RS-232 and infrared interfaces and is designed to be used in environments where a Windows based PC is either unavailable or impractical. This handheld programmer allows remote configuration and downloading from OM-EL Series dataloggers from up to 4 feet away. Model OM-EL-HL uses a simple menu system to configure OM-EL Series dataloggers by selecting measurement range, sample rate, alarm levels and starting time via the keypad. You can then download the logged data from each OM-EL Series datalogger. Data is safely stored in non-volatile memory. Connect the OM-EL-HL to any PC running EasyLog software in order to graph and analyze the data.

## OM-EL-LITE Low Cost Temperature Datalogger



Model OM-EL-LITE

Supplied with mounting bezel and splash proof case. LCD display digit height is 0.5 inches.

## IR (InfraRed) Remote Logger



The OM-EL-2-IR is the same as Model OM-EL-2 (8 bit) with both IR and RS-232 communications. Allows quick set up and downloading with or without using a cable.

## IR Programmer/Controller



OM-EL-LINK-IR



OM-EL-PANEL-IR

Model OM-EL-HL sets up, starts and downloads all OM-EL Series dataloggers

The OM-EL-EASYLINK is a network cable for linking OM-EL Series dataloggers together.

A total of eight dataloggers can be linked together, which would require one standard cable (supplied with the software) plus 7 OM-EL-EASYLINK network cables.

Easy to install on a Windows 95 or 3.1 platform, the OM-EL-WIN Easy Log control software is needed to enable the user to configure and operate any OM-EL datalogger and is supplied on a 3½ disk with a manual and serial link cable. Allowing up to eight loggers to be operated as a network, the OM-EL-WIN software

includes automatic prompting for ease of use, a mimic mode which allows remote indication on the PC, extensive graphing facilities and the facility to export data directly into popular spreadsheets such as Excel.

The OM-EL-WIN-LITE control software has all of the features of the OM-EL-WIN software and is used to configure and operate any OM-EL-LITE datalogger.

### Common Specifications

**Number of Readings:** 8000

**Logging Interval:** Selectable 5 sec to 12 hrs

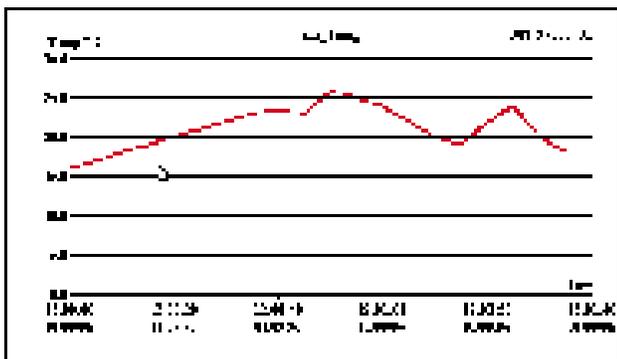
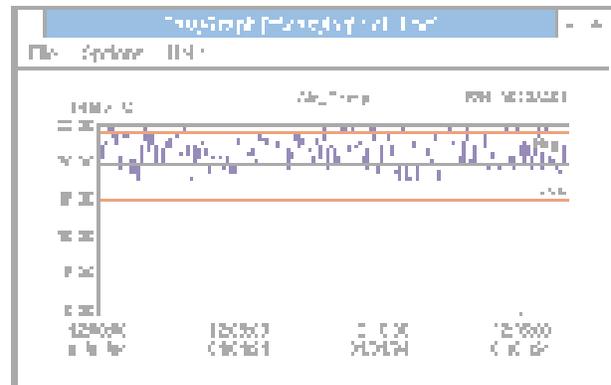
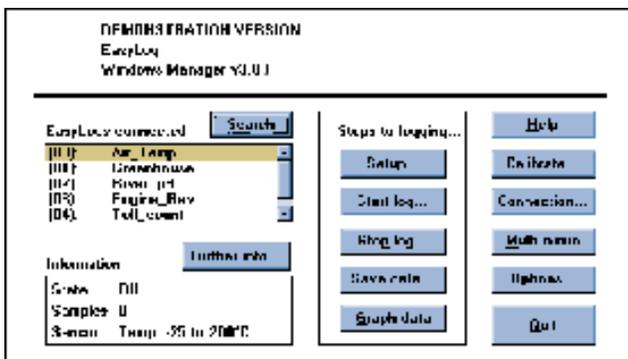
**Serial Link:** All models except OM-EL-LITE have 8 pin mini-DIN

connection; OM-EL-LITE has 3.5 mm audio jack

**Sensor Connection:** OM-EL-1, OM-EL-1-12 BIT; screw terminals; OM-EL-2, phone jack; OM-EL-2-12 BIT, 4-pin connector (mating connector supplied)

**Range selection:** 8 bit models; software selectable: 12 bit models; selected by internal jumper

## EasyLog for Windows Control Software



Configure and operate any OM-EL Series datalogger.



## Input Types and Ranges

Model Number		OM-EL-LITE	OM-EL-1 OM-EL-2 OM-EL-2-IR	OM-EL-1-12BIT OM-EL-2-12BIT
Input Type	Range	Resolution/Accuracy	Resolution/Accuracy	Resolution/Accuracy
Temperature (internal sensor)	14 to 122°F (-10 to 50°C)	0.5°F/±2°F (1°C/±1°C)	1°F/±2°F (1°C/±1°C)	-
Temperature (Type K t/c)	-13 to 392°F (-25 to 200°C)	-	1°F/±2°F (1°C/±1°C)	-
Temperature (Pt100 RTD)	-200 to 200°F (-200 to 200°C)	-	-	0.1°F/±1°F (0.1°C/±0.5°C)
Temperature (Pt100 RTD)	-328 to 1562°F (-200 to 850°C)	-	-	1°F/±2°F (1°C/±1°C)
pH	0 to 14 pH	-	0.1 pH/*	-
dc Voltage	±200 mV	-	-	100 uV/0.05%
dc Voltage	±2 V	-	0.01 V/±1%	1 mV/0.05%
dc Voltage	±20 V	-	-0.1 V/±1%	10 mV/0.05%
dc Current	4 to 20 mA	-	-	16 uA/±0.1%
Frequency**	40 to 400 Hz	-	NA/±2 Hz	-
Rate Count†	0 to 255	-	1 unit/NA	-

\*Sensor Dependent

\*\*Pulse input,  $V_{IH} > 2.0 V$ ,  $V_{IL} < 1.0 V$ . Max input ±20 V.

†Counts no. of pulses over a given period. Max no. of counts per period is 255. Voltage levels are the same as for frequency measurement.

## Physical Specifications

Model Number	OM-EL-LITE	OM-EL-2 OM-EL-2-IR OM-EL-2-12BIT	OM-EL-1 OM-EL-1-12BIT
Dimensions	1.08 H x 1.59 W x 0.63" D† (27.5 x 40.4 x 16 mm)	2.12 H x 2.75 W x 1.02" D (54 x 70 x 26 mm)	1.73 H x 2.28 W x 0.63" D† (44 x 58 x 16mm)
Panel Cutout	1.77 W x 0.87" H (45 x 22.2 mm)	-	2.44 W x 1.26" H (62 x 32 mm)
Weight	0.8 oz (25 g)	2.9 oz (85 g)	1.7 oz (50 g)

† Depth behind panel

## To Order (Specify Model Number)

Model Number	Price	Description
OM-EL-1	\$166	8 bit panel mount datalogger
OM-EL-1-12BIT	270	12 bit panel mount datalogger
OM-EL-2	185	8 bit portable datalogger
OM-EL-2-12BIT	306	12 bit portable datalogger
OM-EL-2-IR	248	8 bit portable datalogger with infrared communications
OM-EL-LITE	148	Ultra compact panel mount datalogger
OM-EL-WIN	78	EasyLog for Windows software for OM-EL Series dataloggers (except Model OM-EL-LITE)
OM-EL-WIN-LITE	74	EasyLog LITE for Windows software for OM-EL-LITE datalogger
OM-EL-HL	360	Handheld infrared programmer/controller
OM-EL-LINK-IR	72	RS-232 port infrared communications module
OM-EL-PANEL-IR	72	Panel mount infrared communications module
OM-EL-EASYLINK	59	Network cable

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