

OM-EL-1

PANEL MOUNT DATALOGGER

INSTRUCTION
SHEET

M-3139

OM-EL-1 measures, displays, records and controls temperature, humidity, pH, voltage, current, etc., with a memory for 8064 readings and a battery life of up to 3 years**. OM-EL-1 can operate as a 'stand alone' logger or be permanently connected to a system. The OM-EL-1 serial link is addressable and up to 8 loggers can be connected to one serial port. The PC software operates under Windows 3.1 and does not require specialist skill to operate. Data output is in text format and can be easily integrated into any popular spreadsheet. Graphical output is possible under OM-EL-WIN. Consult the EasyLog software manual for further details.

- 🔋 Battery Powered
- 🔧 Multi-function
- 💾 Non-volatile Data Storage
- 📏 Panel Mounting
- 👉 Easy to Use
- 🌡️ Cold Junction Compensation For Thermocouple Temperature Sensing

Windows™ 3.1 Control Software

Model No - OM-EL-WIN

Easy to install and use, the control software will enable the user to control one or more EasyLogs and operate them as a complete system. Supplied on a 3½" disk with a manual and serial link. OM-EL-WIN will run under Windows 95.

Accessories - Cables

Model No - OM-EL-EASYLINK

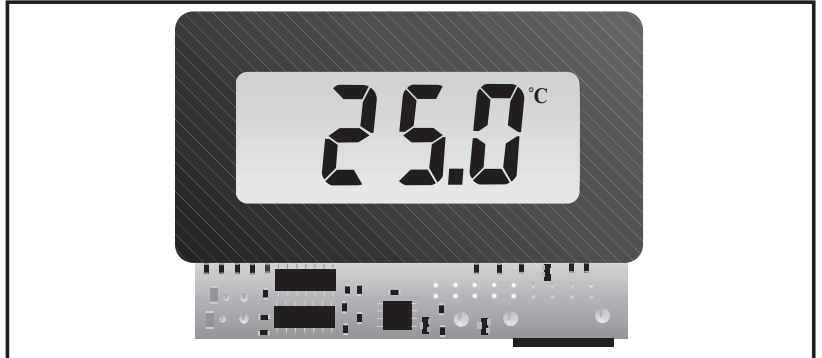
Extension connector to 'daisy chain' more than one EasyLog. One extension will be needed for each extra logger.

* Sensor dependent.

** Battery life dependent on input mode and sample rate.

E.g. Rate Count, 5 sec. sample rate.

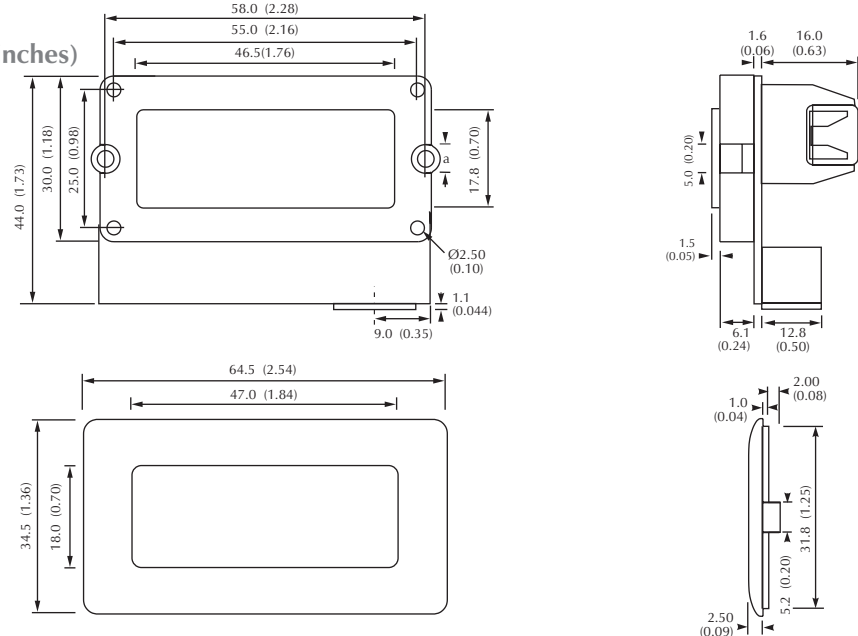
Battery life is approximately 30 days.



Data Logger			Model No OM-EL-1
Specification	Range	Resolution	Accuracy
Temperature ('K' type thermocouple)	-25 to +200°C	1°C	±1°C
	-13 to +392°F	1°F	±2°F
Temperature (internal)	-10 to +50°C	1°C	±1°C
	+14 to +122°F	1°F	±2°F
Humidity	5 to 95% RH	1%RH	*
pH	0 to 14pH	0.1pH*	±0.1pH*
Voltage	0 to 2V D.C.	0.01V	±1%
	0 to 20V D.C.	0.1V	
Current	0 to 2A	0.01A	±1%
Rate count	0 to 255	1 unit	N/A
Frequency	40 to 400Hz	N/A	±2Hz
Battery	3.6V ½AA lithium (up to 3 years life)**		
Serial link	8 Pin Mini DIN		
Sensor connection	Screw terminal		
Memory capacity	up to 8000 readings		
Sample rate	1 sample per 5 seconds to 1 per 12 hours.		

DIMENSIONS

All dimensions in mm (inches)



NOTE - BEZEL SHAPE AND DIMENSIONS ARE LIABLE TO CHANGE WITHOUT PRIOR NOTICE

Panel cut-out
62 x 32 (2.44 x 1.26)

USING EXTERNAL SIGNALS

PIN FUNCTION

- | | |
|-------------|---|
| A1, A2, REF | Output for test diagnostics. Do not use. |
| HA | High Alarm output = V+ when alarmed. |
| SW | 'Push to record event' input. Momentarily connect to V-. |
| RS | Reset input. Momentarily connect to V-. NOTE - logging will stop and restart at 0 time. |
| LA | Low Alarm output = V+ when alarmed. |
| A+ | Output = V+ when a reading is in progress. |
| V+ | Battery positive. |
| V- | Battery negative. |

⚠️ DO NOT APPLY AN EXTERNAL SUPPLY VOLTAGE ACROSS THESE PINS WITH BATTERY IN PLACE. ⚠️

Only connect outputs to high impedance inputs, otherwise performance will be affected and battery life drastically reduced.

BATTERY REPLACEMENT

Only use 1/2AA 3.6V lithium. The list below is not exhaustive. Check with supplier that the battery you are ordering is 'press fit' and is not fitted with solder tags or leads. Take care to connect correctly.

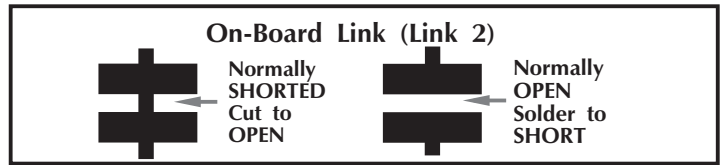
MANUFACTURER	PART NUMBER	MANUFACTURER'S ORDER CODE
MAXELL	ER 35TC	n/a
SAFT	LS3	n/a
SONNENSCHHEIN	SL-750/S	1107 501 100
TADIRAN	1/2AA/S	1551-02-210-000



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



VARIOUS OPERATING MODES



TEMPERATURE (with thermocouple)
A 'K' type thermocouple can be connected directly to the OM-EL-1. The range should be selected in the OM-EL-WIN software.

TEMPERATURE (internal)
No sensor needed. The OM-EL-1 uses its internal temperature sensor. Ensure A to B is SHORTED.

VOLTAGE*
D.C. voltage within the ranges of 0-2V or 0-20V can be connected directly to the OM-EL-1. Ensure the appropriate range has been selected in advance within the OM-EL-WIN software. For higher voltage measurement an external potential divider network should be added.

pH (with internal reference)
Connect a pH probe that has an internal reference cell directly to the OM-EL-1. (refer to the probe's instruction manual).

NOTES

- There is no need to open Link 2 if the SENTEK P14 probe is used.
- OPEN LINK 2

HUMIDITY
A capacitive humidity sensor can be connected directly to the EasyLog.

NOTE

- There is no RH annunciator on the LCD.
Sensor range - 200 to 300pF
0.5 to 1.0pF per %RH

CURRENT*
D.C. current can be measured up to 2A maximum by using an external 1Ω 6watt shunt across the input. Select the voltage '0-2V range' in OM-EL-WIN software and 'A' in the display symbols.

RATE COUNT*
OM-EL-1 counts the number of pulses on the input during the sample interval (e.g.: every 5s, 10s, 20s etc.). At the end of each sample interval, the count number is stored and the counter is reset to zero. A pulsed input of 0-5V can be directly connected to the OM-EL-1. The counter is incremented on the falling edge.

*NOTES

- When using the serial link, ensure that all signals are isolated from the computer ground.
- When using several loggers together, ensure all signals are isolated or use the same ground.



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- Model and serial number of the product under warranty, and
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