EasyLog® EL-2-12BIT

WINDOWS™ Compatible Data Logger

EL-2-12BIT is an easy to use display module capable of measuring, recording and displaying temperature (Pt 100), voltage and current. With 12 bit A/D resolution, a memory for 8000 readings and a battery life of up to 3 years, EL-2-12BIT can operate as a 'stand alone' logger or be permanently connected to a system. The EL-2-12BIT serial link is addressable and up to 8 loggers can be connected to one serial port. The PC software operates under Windows and does not require specialist skill to operate. Data output is in text format and can be easily integrated into most popular spreadsheets. Graphical output is possible under EL-WIN. Consult the EasyLog software manual for further details.

- Battery Powered
- Multi-function
- Non-volatile Data Storage
- Hand Held or Surface Mounting
- Easy to Use
- High Resolution Read-out

CONTROL SOFTWARE

Stock Number - EL-WIN

Easy to install and use, the control software will run under Windows 98, 95 or 3.1. And 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.

ACCESSORIES - CABLES

Stock Number - EasyLink

Extension cable to 'daisy chain' more than one EasyLog. One extension will be needed for each extra EL-2-12BIT module that is attached to the chain.

Data Logger			Stock Number EL-2-12BIT
Specification	**Range**	**Resolution**	**Accuracy**
Temperature - Low Range *	-200 to +200°C	0.1°C	±0.5°C
	-200 to +200 °F	0.1°F	±1°F
Temperature - High Range *	-200 to +850°C	1°C	±1°C
	-328°F to +1562°F	1°F	±2°F
Voltage - D.C.	0 to ±200mV	100µV	±0.05% ±1 Count
	0 to ±2V	1mV	
	0 to ±20V	10mV	
Current - D.C.	4 to 20mA	16µA	±0.1% ±1 Count
Battery	3.6V ½AA lithium (up to 3 years life) **		
Serial link	8 Pin Mini DIN		
Sensor connection	4 Pin Connector		
Memory	Up to 8000 samples**		
Sample rate	1 sample per 5 seconds to 1 per 12 hours.		

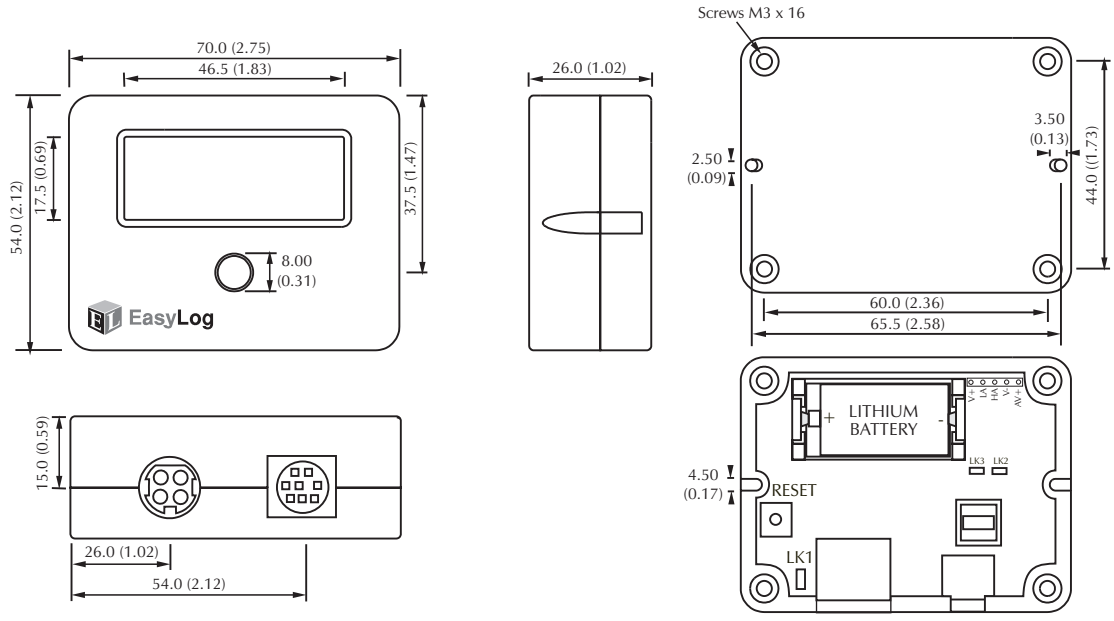
* Sensor dependent **Depending on sample rate

Input Impedance	200mV Range	>1GΩ
	2V, 20V Range	0.5MΩ
	4-20mA Range	10Ω

SENSOR SOURCING GUIDE

Sensor	Stock Number
Temperature (Pt100)	PT-TYP PROBE-D

DIMENSIONS All dimensions in mm (inches)



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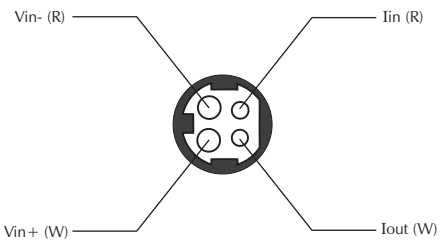
LINK FUNCTIONS

Lk1: When daisy-chaining EasyLog Modules, remove The Lk1 jumpers from all modules except one.

Lk2 & Lk3: Fit these jumpers as shown in the table below.

Measurement Range Jumper	Link Setting
200mV	Lk2 open, Lk3 open
2V	Lk2 closed, Lk3 open
20V	Lk2 closed, Lk3 open
4-20mA	Lk2 open, Lk3 closed
Temperature (Low Range)	Lk2 open, Lk3 open
Temperature (High Range)	Lk2 open, Lk3 open

Sensor Input



PIN FUNCTIONS

SW: Switch input, normally pulled high. Connect momentarily to V- to take a reading in One-Shot mode or to start logging when configured for Push-to-Start in EL-WIN.

AV+: Test pin. Do Not Use.

V-, V+: External power supply connections. Read Important Note below prior to use. External supply voltage range 3 to 3.6Vdc. External power supply must be floating with respect to the signal to be measured.

HA, LA Normally at V-, these pins go high when their respective alarm levels have been reached or exceeded.

Internal Pin Header

IMPORTANT NOTE- Always remove the Lithium battery from the module **BEFORE** connecting an external power supply to the module. Failure to do so may cause the battery to explode.

BATTERY REPLACEMENT

Only use ½AA 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. When replacing the battery, remove the serial communications cable and ensure correct orientation of the battery. DO NOT PRESS ON LCD WHEN INSERTING BATTERY.

MANUFACTURER	PART NUMBER	MANUFACTURER'S ORDER CODE
MAXELL	ER 3S TC	n/a
SAFT	LS3	n/a
SONNENSCHEIN	SL-750/S	1107 501 100
TADIRAN	½AA/S	1551-02-210-000

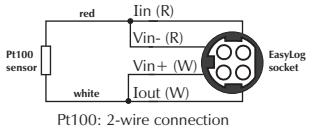
WARNING: Handle lithium batteries carefully - observe warnings on battery casing. Dispose of in accordance with local regulations.

APPLICATIONS

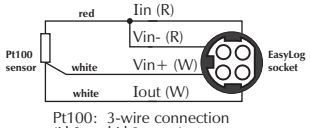
NOTE -It is possible to measure parameters other than those outlined below. Use an appropriate sensor and conditioning circuit to convert the parameter to be measured into a linear voltage or current and apply this signal to a suitably scaled EL-2-12BIT module.

Measurement signals must always be isolated from the communications signals.

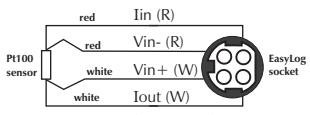
TEMPERATURE



Pt100: 2-wire connection
(Lk2 and Lk3 open)

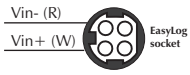


Pt100: 3-wire connection
(Lk2 and Lk3 open)

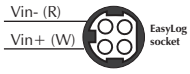


Pt100: 4-wire connection
(Lk2 and Lk3 open)

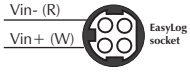
VOLTAGE



200mV DC connection
(Lk2 and Lk3 open)

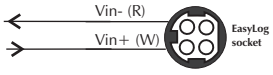


2V DC connection
(Lk2 closed, Lk3 open)

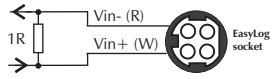


20V DC connection
(Lk2 closed, Lk3 open)

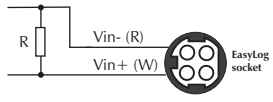
CURRENT



4-20mA Indication
Use 4-20mA indication range
(default calibration 0-1000)
(Lk2 open, Lk3 closed)



200mA DC connection
Use 200mV range with
annunciators set to mA.
Module will require calibration.
(Lk2 and Lk3 open)



For higher ranges, use 200mV
range and R= $\frac{0.2}{I}$
where I = 2A or 20A fsd.
Module will require calibration.
(Lk2 and Lk3 open)