OM-EL-1-12BIT 12 BIT PANEL MOUNT DATALOGGER

OM-EL-1-12BIT is an easy to use display module capable of measuring, recording, displaying and controlling 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, OM-EL-1-12BIT can operate as a 'stand alone' logger or be permanently connected to a system. The OM-EL-1-12BIT 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 OM-EL-WIN. Consult the EasyLog software manual for further details.

**L** Battery Powered
**M** Multi-function
**N** Non-volatile Data Storage
**P** Panel Mounting
**E** Easy to Use
**Y** High Resolution Read-out

**CONTROL SOFTWARE**
Model No - OM-EL-WIN
Easy to install and use, the control software will run under Windows 95 or 3.1 and enable the user to control one or more EasyLogs, operating them as a complete system. Supplied on a 3½” disk with a manual and serial link.

**ACCESSORIES - CABLES**
Model No - OM-EL-EASYLINK
Extension cable to 'daisy chain' more than one EasyLog. One extension will be needed for each extra OM-EL-1-12BIT module that is attached to the chain.

**DIMENSIONS**

<table>
<thead>
<tr>
<th>Input Impedance</th>
<th>Range</th>
<th>Measurement Range Jumper</th>
<th>Link Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>200mV Range</td>
<td>&gt;1G</td>
<td>200mV</td>
<td>200mV</td>
</tr>
<tr>
<td>2V, 20V Range</td>
<td>0.5MΩ</td>
<td>2V, 20V</td>
<td>2V, 20V</td>
</tr>
<tr>
<td>4-20mA Range</td>
<td>10ΩΩ</td>
<td>4-20mA</td>
<td>4-20mA</td>
</tr>
</tbody>
</table>

**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 (right).

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Range</th>
<th>Resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature - Low Range</td>
<td>-200 to +200°C</td>
<td>0.1°C</td>
<td>±0.5°C</td>
</tr>
<tr>
<td></td>
<td>-200 to +200°F</td>
<td>0.1°F</td>
<td>±1°F</td>
</tr>
<tr>
<td>Temperature - High Range</td>
<td>-200 to +850°C</td>
<td>1°C</td>
<td>±1°C</td>
</tr>
<tr>
<td></td>
<td>-328°F to +1562°F</td>
<td>1°F</td>
<td>±2°F</td>
</tr>
<tr>
<td>Voltage - D.C.</td>
<td>0 to ±200mV</td>
<td>10μV</td>
<td>±0.5%</td>
</tr>
<tr>
<td></td>
<td>0 to ±2V</td>
<td>1mV</td>
<td>±1 Count</td>
</tr>
<tr>
<td></td>
<td>0 to ±20V</td>
<td>10mV</td>
<td>±1 Count</td>
</tr>
<tr>
<td>Current - D.C.</td>
<td>4 to 20mA</td>
<td>16mA</td>
<td>±1.1%</td>
</tr>
<tr>
<td>Battery</td>
<td>3.6V / 2AA lithium (up to 3 years life) **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serial link</td>
<td>8 Pin Mini DIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensor connection</td>
<td>Screw terminal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory</td>
<td>Up to 8000 samples **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample rate</td>
<td>1 sample per 3 seconds to 1 per 12 hours. **Depending on sample rate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MEASUREMENT RANGES**

<table>
<thead>
<tr>
<th>Range</th>
<th>Jumper Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>200mV</td>
<td>Lk2 open, Lk3 open</td>
</tr>
<tr>
<td>2V</td>
<td>Lk2 closed, Lk1 open</td>
</tr>
<tr>
<td>20V</td>
<td>Lk2 closed, Lk1 open</td>
</tr>
<tr>
<td>4-20mA</td>
<td>Lk2 open, Lk3 closed</td>
</tr>
<tr>
<td>Temperature (Low Range)</td>
<td>Lk2 open, Lk1 open</td>
</tr>
<tr>
<td>Temperature (High Range)</td>
<td>Lk2 open, Lk1 open</td>
</tr>
</tbody>
</table>
PIN FUNCTIONS

TxD, RxD: No pins fitted. Input and output connections for Infra-Red communications, e.g., connect to a PANEL-IR module.

AV+: Test pin. Do not use.

V+V+: External power supply connections. Read Important Note below prior to use. External supply voltage range 3.0 to 3.6 Vdc. External power supply must float 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.


Iin, Iout: Current Loop connection, extension of screw terminal block connections.

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 2/3 AA 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. Take care to connect correctly. DO NOT PRESS ON LCD WHEN INSERTING BATTERY.

<table>
<thead>
<tr>
<th>MANUFACTURER</th>
<th>PART NUMBER</th>
<th>MANUFACTURER'S ORDER CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAXELL</td>
<td>ER 3 TC</td>
<td>n/a</td>
</tr>
<tr>
<td>SAF</td>
<td>LS3</td>
<td>n/a</td>
</tr>
<tr>
<td>SONNENSCHNÉIN</td>
<td>SL-75/E</td>
<td>T107 501100</td>
</tr>
<tr>
<td>TADAHAN</td>
<td>1551 62 211 000</td>
<td></td>
</tr>
</tbody>
</table>

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 OM-EL-11218 module.

**APPLICATIIONS**

**TEMPERATURE**

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

**VOLTAGE**

- 200mV DC connection (Lk2 and Lk3 open)
- 2V DC connection (Lk2 closed, Lk3 open)
- 4.20mA indication range (V+ to Lk3 open)
- 200mA DC connection

**CURRENT**

- 4.20mA indication range (V+ to Lk3 open)
- 200mA DC connection
- 200mA DC connection
- 200mA DC connection
- 200mA DC connection

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

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