



## EnviroMon Data Logging System



EnviroMon is a complete data logging system. It automatically measures and records temperature, humidity and other parameters and provides warnings when readings go out of range.

EnviroMon is both flexible and economical: you can start off just recording a single temperature and expand to monitor up to 40 sensors spread around a site.

EnviroMon works on a network so that sensors can be placed 100s of metres apart. Measurements from the network can be read off the display on the logger, sent to a printer, downloaded to a PC or even displayed live on a website. Using a modem (radio, telephone or GSM) the loggers can be monitored remotely.



### The system offers these important benefits:

- It carries out routine measurements automatically, leaving staff to get on with their job
- It sounds an alarm when there is a problem: if there is no alarm, no action is required
- It maintains a permanent record of measurements, so that you can prove compliance with appropriate legislation
- It provides timely warnings of equipment failure, minimising the risk of spoiled stock
- It is easy to install and use

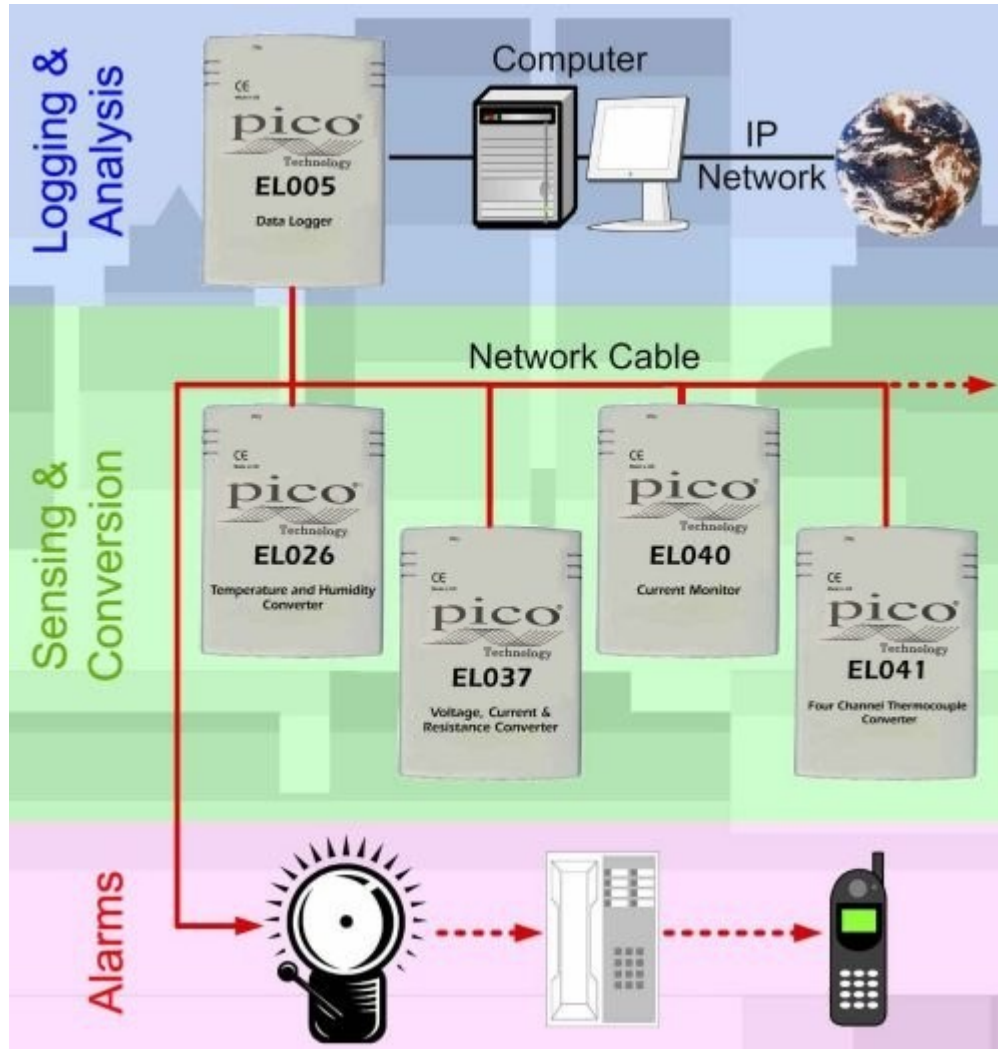
### The system has the following features and options:

- Operation with a PC or stand-alone (computer required for installation)
- Mains powered, with battery backup
- Can print reports directly
- Can be operated via a modem, network or internet for remote monitoring
- Can publish data live to a website
- Wide range of alarm options
- Fahrenheit or Celsius temperature reporting



## EnviroMon Data Logging System

EnviroMon is a very flexible data logging system. It is made up of a number of separate modules: you simply choose the modules that you need to do the job.



The network is a four-wire cable that carries power and data between the logger, converters and optional equipment like remote alarms. The logger can be attached anywhere along the network cable.

For most applications, low cost telephone style cable is used. This allows operation with 400 metres of network cable between the logger and the furthest sensor. With thicker cable, this distance can be increased to a kilometre or more.

Cables can be purchased in standard lengths, alternatively you can make up your own.

At the heart of the EnviroMon system is the data logger, which takes readings at intervals from one minute to four hours. The logger can send reports to a printer at specified intervals, or can transfer data to a computer for long term storage and graphical analysis. The logger contains back-up batteries so that it continues recording if the mains power fails.



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The loggers can be used in a number of ways:

- As data logging system. The logger collects data unattended for a period of time (say a week), it is then connected to a PC to download the data for display, storage and analysis.
- As a remote data logging system. The logger(s) are sited remotely (either at a fixed location or on a truck, ship etc) and data is downloaded periodically to a local PC via a modem (radio, telephone or GSM) or even via the internet.
- As a data acquisition system. The logger is permanently connected to the PC, so that readings can be monitored real time on the PC screen. Data can also be published to a website - see dynamic web pages for more information.

### EL005 Data Logger

The EL005 logger has no display or buttons, and so must be connected to a computer or printer to view the data. The EL005 has a larger memory than the EL008 (250,000 samples compared to 15,000) and long life internal re-chargeable batteries. This combination makes it ideal for recording data over long periods of time.

The EL005 does not have an internal alarm: if you need an audible alarm, connect an EL006 audible alarm unit to the network.

The EL005 logger has internal re-chargeable batteries. These batteries are kept topped up whilst mains power is available, and will keep the system running for up to 72 hours during a mains power failure. The EL018 dialer adapter/battery backup can provide power to the system for much longer periods in the event of mains failure.



Specifications	EL005
Sampling rate	1 to 240 minutes per sample
Max number of readings	250,000
Internal alarm	None
Max number of converters	10
Max number of sensors	40
Support for GSM / SMS	Yes
PC Connection	Serial port
Power	12V DC (mains adaptor)
Battery backup	Internal rechargeable cells



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EnviroMon takes readings from a number of sensors. These sensors are connected to converters that transform the analogue signals from the sensor into digital signals: these digital signals can then be transmitted reliably and accurately to the logger over long or short distances.

### Convertors :

*EL001 Three channel converter*

*EL041 Thermocouple Converter*

*EL026 Humidity / Temperature Converter*

*EL040 Current Monitor*

*EL037 General Purpose Converters (Voltage / Current Inputs)*

*EL016 8 Channel Voltage Converter*

### Accessories :

*EL006 Remote Alarm*

*EL019 Autodialer*

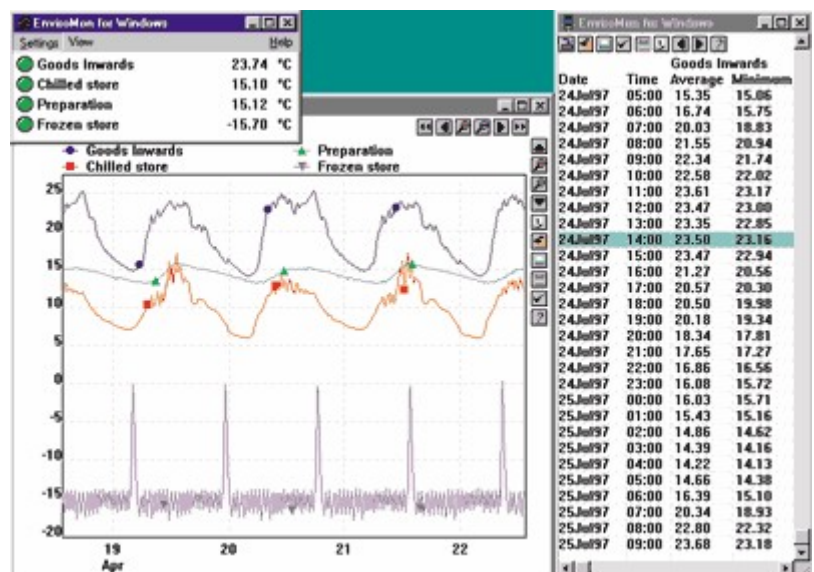
*EL026 Door Switch Sensor*

*EL015 Temperatute Sensor*

*TA011 300A AC Current clamp*

Each EnviroMon data logger is supplied with EnviroMon for Windows software, which is used for:

- System configuration - naming sensors, setting alarm thresholds etc.
- Download of data to a computer - for long term storage
- Graphical analysis of data - either using inbuilt features or data can be exported to other software applications.
- Publish data (graphs and raw data) to a website — see dynamic web pages for more information
- Computer print-outs - print graphs, raw data, summary reports (including min / max / average values, etc) on any Windows compatible printer.





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EnviroMon can be used in a number of ways for remote data acquisition:

### Dynamic Web pages

EnviroMon software can be programmed to automatically upload data to a website. Graphs and raw data can either be uploaded at fixed time intervals or specific data can be requested remotely from a user via a web browser.

### IP Network / Internet

If two computers are connected to a network running the IP protocol (Microsoft networking and the Internet use this protocol), it is possible to connect a logger to one computer and then run EnviroMon for Windows on another computer.

### GSM mobile phone modem

Where a conventional phone line is not available (say on a truck or very remote site), the EnviroMon can be connected to a GSM (mobile phone) modem. As well as using the modem to remotely download data, EnviroMon can be configured to send out a SMS text message in the event of an alarm condition.

