



**Above:**  
**Detail of USB socket**

**Below:**  
**Optional wall mounting security bracket**

The ml4106 datalogger is one of a new series of advanced standalone temperature and humidity dataloggers. These smart loggers are ideal for situations where logging may be temporary, for enclosing with a valuable shipment or situations where a wired or radio system is not the best solution.

Each ml-4106 logger reads its on-board sensors to provide accurate and reliable information about environmental conditions. The logging interval can be set for any period between 10 seconds and 24 hours, depending on the data requirements. An unlimited delay can be set so that logging only begins when the unit is in situ. The readings are written to its 192K memory, which can either stop logging if it becomes full, or wraparound so that the most recent data is not lost. A unit set to log every 5 minutes will take more than 340 days to fill.

Each logger has an LCD screen simultaneously displaying the most recent readings taken, the predicted battery life, and if any readings have exceeded the alarm parameters set. The on-board probes are a precision temperature probe and a high quality humidity probe. These probes can be calibrated by the users or at Hanwell's in-house calibration laboratory.

The logger is set-up and downloaded using an integrated software package,

which automatically recognises the type of unit connected to the PC via the USB lead. Additional software add-ons allow the software to be run with advanced security features.

The logger is powered by a single 3.6V AA lithium battery, which can be fitted by the user. The battery life will be dependent on the logging interval selected. An indicator on the LCD will warn when the battery is low, and the logger maintains a record of when the battery was last changed. Replacing the battery when the logger is connected to the PC allows the logging session to continue uninterrupted. The moulded case allows easy access to the battery and USB socket, as well as having slots to fit onto secure wall brackets and a plain front panel to hide the LCD if desired.

The ml4000 range has been designed to comply with the RoHS and WEEE EU directives, and carries the CE mark.



## Temperature & humidity

**Product Code** ML4106  
**Series** ML4000

### Typical Applications

**Monitoring in:**

- ° Museums
- ° Galleries
- ° Archives
- ° Libraries
- ° Travelling exhibitions

### Instrument

**Dimensions:** 110 x 80 x 35mm  
**Weight:** 200 grams  
**Power Supply:** 3.6 Volt AA Lithium battery  
**Battery Life:** Up to 3 years (depending on use)  
**Case Materials:** ABS & PC  
**Operating Humidity Range:** 0...100% non-condensing  
**Operating Temp Range:** -20° to +60° C  
**Memory Capacity:** 100000 readings

### Sensors

#### Temperature

**Sensor:** Precision thermistor  
**Range:** 0° to +65° C  
**Accuracy:** +/- 0.1° C  
**Resolution:** 0.1° C

#### Humidity

**Sensor:** Precision capacitive polymer  
**Range:** 0-100% RH non-condensing  
**Accuracy:** +/- 2%  
**Resolution:** 0.1%RH

### Logging Functions

**Memory:** 2048k EEPROM  
**Logging Intervals:** Programmable from 10 seconds to 24 hours  
**Record Capacity:** 100000 records  
**PC Interface:** USB communications

### Accessories

**Code:**

- W200 USB logger software
- Y119 Wall mounting security bracket
- Y055 Setup communications cable
- G129 Replacement 3.6V Lithium AA battery