



Above:
Detail of USB socket

Below:
Optional wall mounting security bracket

It is recognised that one of the major causes of damage to works of art, fine furniture, carpets, wall coverings and museum exhibits is light falling on the objects.

Hanwell provide a range of instruments that enable the conservator to measure the levels of Lux and the UV content of light.

The ml4703 Lux & UV datalogger is part of the 4000 range of advanced data loggers, allowing monitoring of a site, with historical analysis of data.

The most damaging part of the light is its ultraviolet (UV) content. Hanwell provide a range of instruments that enable the conservator to measure the levels of Lux and the UV content of light. Measurements can be taken of the proportion of UV present ($\mu\text{W}/\text{lumen}$), the total amount of UV (mW/M^2), and the amount of visible light (Lux).

Lux is measured in the range 10 to 5000 Lux. This is generally sufficient for conservation environments where a Lux level of over 600 is not normally desired, but higher ranges can be supplied on request. The UV range is 20 to 2000 $\mu\text{W}/\text{Lumen}$.

Each 4000 logger has enough internal memory to store up to 100000 readings and is in fact continually logging. When an object that is being monitored by a 4000 series datalogger goes out on loan

the datalogger can travel with the object. When the object returns home the 4000 series unit can be downloaded via the high speed USB connection directly into the PC software. The environmental data for the time that the object has been away will be added to previously stored data, providing a continuous history for that object.

The moulded case allows easy access to the battery and USB socket, as well as having slots to fit onto secure wall brackets.

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



Lux & UV

Series ml4000

Typical Applications

Monitoring in:

- ° Showcases
- ° Museum stores
- ° Galleries
- ° Temporary exhibitions
- ° Archives

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

Sensor

Lux Sensor Type: Photometric diode detector
Visible Wavelength: 400 to 700nm
Visible power: 10 to 5000 lux
Colour Response: Human eye (CIE curve matched)
Accuracy: +/- 1%
UV sensor Type: UV silicone photodiode
UV proportion range: 10 to 1000 $\mu\text{W}/\text{Lumen}$
UV power range: 0 to 2000 mW/m^2
UV wavelength range: 250 to 400nm
Accuracy: +/- 1% (calibration spectrum)
Angular response: Cosine

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 USB setup communications cable
G129 Replacement 3.6V Lithium AA battery
CAL-L-UV 3 point calibration certificate