



764/0 environmental monitors



- *Replaces 4 separate instruments*
- *Ultra Violet (UV) level*
- *Visible Light (Lux or Foot-candles)*
- *% Relative Humidity*
- *Dew point*
- *Temperature (°C or °F)*
- *Sized like a small mobile phone*
- *Easy one handed operation*
- *Large, easy to read display*
- *Maximum & minimum with time*
- *Optional data logging*



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The Elsec range of environmental loggers

This single instrument enables measurement of the four parameters that cause most damage to buildings, valuable objects, documents etc: ultra-violet and visible radiation, humidity and temperature.

Using the 764, measurements can be taken of the proportion of UV present (mW/lumen), the total amount of UV (mW/M²), the amount of visible light present as Lux or Foot-candles. Temperature can be measured in °C or °F, humidity is shown as % Relative Humidity (%RH) and dew point. The displayed units can easily be changed by the user. Maximum and minimum values and their time of measurement are displayed for each parameter.



Much trouble has been taken to make the 764 as easy to use as possible. Anyone can take measurements straight out of the box with little, if any, reference to the instruction manual. The appropriate button is pushed depending on the measurement required and the reading is taken. The unit automatically turns off 10 seconds after the last reading unless a button is held down for over 5 seconds, this causes continuous measurements to be taken until another button is pressed. The large 8 line display enables an easy to use menu system to select the more advanced functions, change units etc.

Data Logging

The optional data-logging function enables over 10,000 readings of all four parameters to be automatically taken at selectable intervals (every 10 seconds to 1 hour). The saved data can then be transferred to a computer by a wireless infra-red link (IrDA compatible). Many modern computers have an infra-red interface built in; for those that do not, adapters are available. When logging data the 764 can be turned off to save power and the built in clock will turn the unit on whenever a reading needs to be taken, this enables a 764 to be left taking readings for months at a time. Software is provided to save the logged data in a CSV format that can be accessed and displayed by many programs (e.g. Microsoft Excel). A separate program allows the graphical display of the data.



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Units of measurement for UV

Traditionally UV has been measured in museums as the proportion of ultraviolet present. This result is useful for checking a particular lamp or window because the proportion of UV does not change with the distance from the light source. Using a simple rule, the amount of UV on an object can be limited (it is usual to arrange that the proportion of UV should not exceed 75mW/lumen in museums). The actual amount of damage done is determined by the total amount of UV falling on the object, so it is useful to be able to measure this directly, especially if non standard amounts of illumination are required. The amount of UV should be as little as possible but in general should not exceed 20mW/M².

A lux readout is provided to control illumination and limit damage done by visible light. Normal museum light levels should be limited to 150-250 Lux.

Prices

Environmental Monitor 764	£574.00
Environmental Monitor / Logger 764C	£667.00
Lux / UV monitor only 7640	£495.00

Adaptors for downloading to a PC without infrared connection (Windows 98/2000/XP)	
Serial port	£60.00
USB connection	£60.00

Prices exclude VAT and delivery

Also included in the range is the 774 Universal light meter. This handheld monitors thermal radiation (IR), ultra violet, visible light and temperature. Please contact us for further details.



Specifications

Method of radiation detection	Twin silicon photodiodes connected to single chip microprocessor
Visible wavelength range	400-700nm (CIE response). No correction required for different light sources
Visible power range	0.1 - 200,000 Lux (0.1 – 20,000 Foot-candles)
UV wavelength range	300-400 nM
UV power range	2 - 50,000 mW/sqM
UV proportion range	0 - 10,000 μ W/Lumen
RH sensor	Capacitive film type
RH range	0-100%RH
Display resolution	Lux: 0.1 up to 100 then 1. Foot-candles: 0.1 up to 100 then 1 UV: 0.1 up to 100 then 1. Proportion of UV: 1 μ W/Lumen Temperature: 0.1° C or ° F. RH: 0.1
Accuracy	Light: 5% \pm 1 displayed digit. UV: 15% \pm 1 displayed digit Temperature: \pm 0.5° C (\pm 0.9° F). RH: \pm 2.5%
Angular response (Light & UV)	Cosine
Readout	8 line graphical Liquid Crystal Display with automatic backlight
Data logging time intervals. (Time till full)	10 seconds (30 hours), 1 minute (7½ days) , 10 minutes (75 days), 1 hour (454 days)
Data logging storage capacity	10,900 readings of all 4 parameters
Storage resolution for logged data	Light & UV: 0.1% of saved value. Temperature: 0.5°C. Humidity: 0.5%RH
Computer Interface	IrDA compatible wireless infrared link
Date function	Display as day-month-year or month-day-year. Fully Year 2000 compliant
Batteries	2 off alkaline AA type
Battery Life	Approx 100 Hours continuous use or 12,000 readings taking 30 seconds each. Battery life will be less if the display backlight is used
External Power Supply (If available)	4.0-5.2V DC, 100mA A suitable mains power supply can be provided as an optional extra (please specify mains voltage required).
Operating Temperature	0-50°
Dimensions	150 x 65 x 25mm 5.9 x 2.5 x 1 inches Including RH/Temperature probe
Weight	165g (5.6 oz) with batteries.

