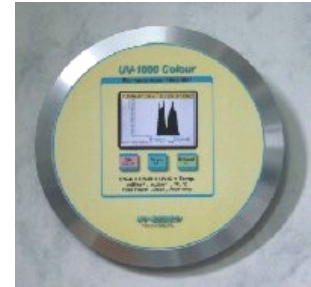


# THE WIDE RANGE OF UV - IR TECHNOLOGY



## UV-1450 Colour ComPort Radiometer + Dosimeter

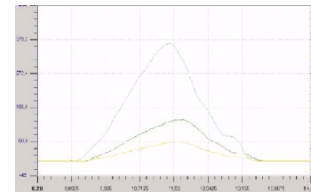
- + UV-A intensity  $mW/cm^2$  + UV-A dose  $mJ/cm^2$
- + UV-B intensity  $mW/cm^2$  + UV-B dose  $mJ/cm^2$
- + UV-C intensity  $mW/cm^2$  + UV-C dose  $mJ/cm^2$
- + UV-V intensity  $mW/cm^2$  + UV-V dose  $mJ/cm^2$
- + Full UV intensity  $mW/cm^2$  + Full UV dose  $mJ/cm^2$
- + big colour graphic display
- + numerical and graphical display
- + permanent or „triggered“ measuring mode\*
- + USB ComPort and PC evaluation software



The **UV-1450 Colour ComPort Radiometer + Dosimeter** is a self-contained, high quality UV measuring instrument. It is designed to measure and record UV intensity and UV dosage in the UV curing process. Measuring results are indicated both, graphically and numerically on a big colour display.

It is equipped with four different UV sensors for the individual measuring of

- UV-A 315 – 410 nm
- UV-B 280 – 315 nm
- UV-C 230 – 280 nm
- UV-V 395 – 445 nm
- UV - 230 – 410 nm



With these four different UV-bands most of the measuring requirements of UV curing applications can be covered.

Due to its three different UV sensors and the integrated microprocessor the **UV-1450 Colour ComPort Radiometer + Dosimeter** can measure, record and display the peak of the UV-intensity ( $mW/cm^2$ ) for each UV-band individually plus the peak of total UV energy.

Additionally, this instrument is calculating the UV-dosage ( $mJ/cm^2$ ) of the UV energy supplied during the time of exposure of one measuring cycle. The UV-dosage is calculated for each UV-band (UV-A, UV-B, UV-C and UV-V) individually and as total Integral of UV-dosage over the full UV-range. This allows to determine not only the total energy, but also how that energy is delivered, i.e., what intensity and dose at what UV-band.

\*This instrument features a selectable „triggered mode“, i.e. the 30 sec recording cycle starts within a 120 second readiness phase not before the incident UV-intensity exceeds  $2 mW/cm^2$ .

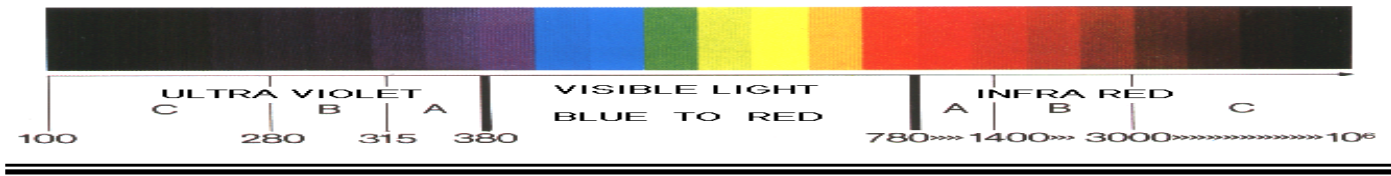
The four sensors are on the back of the unit which also serves as a heat shield. After completion of the measuring cycle the measuring results are instantly displayed numerically and graphically auto-scaled on the built in 45 x 34 mm (1.75" x 1.3") TFT colour display.

A special AUTO-OFF feature that turns off the unit automatically after one minute serves as energy saving and extension of the battery service life.

The **UV-1450 Colour ComPort Radiometer + Dosimeter** is equipped with an USB ComPort and an evaluation software for downloading the data to a computer to show, edit and store a history of the measuring results of the entire measuring cycle as graphic charts ( $mW/cm^2$ ) and ( $mJ/cm^2$ ) and ( $^{\circ}C/^{\circ}F$ )

### Item 63.7. UV-1450 Colour ComPort Radiometer + Dosimeter UV-A, UV-B, UV-C and UV-V

# THE WIDE RANGE OF UV - IR TECHNOLOGY



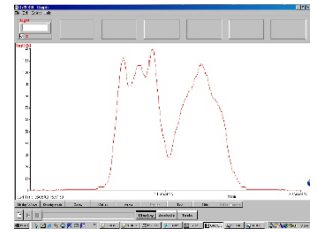
## UV-1450 Colour ComPort Radiometer + Dosimeter

### Technical Data:

Spectral ranges:	UV-A 315 – 410 nm UV-B 280 – 315 nm UV-C 230 – 280 nm UV-V 395 – 445 nm UV 230 – 410 nm
Max. Power Input	0 to 5,000 mW/cm <sup>2</sup>
Measuring range:	0 to 2,000 mW/cm <sup>2</sup> or 2,000 to 5,000 mW/cm <sup>2</sup>
Sampling rate:	0.005 sec (200/sec)
Recording cycle:	30 sec.
Readiness phase:	120 sec.
Display range:	0 to 36,000 mJ/cm <sup>2</sup>
Display:	TFT Colour Display, 45 x 34 mm (1.75" x 1.3")
Power source:	2 x long life 3.6 V Lithium Battery
Power consumption:	20 µA
Battery service life:	2,000 measuring cycles
Dimensions:	Ø 5.5" (140 mm), height ½" (13 mm)
Weight:	approx. 17.5 ounce (500 g)
Operating temperature:	32° to 113° F / 0 to 45° Celsius
Heat protection:	Heat shield on back plate
Base Accuracy:	± 5 %

### Special Feature:

ComPort  
for the download  
of data  
to a Computer



While on the conveyer belt, the **UV-1450 Colour ComPort Radiometer + Dosimeter** can withstand max. 230° F / 110° C for up to 10 seconds. The temperature of the housing should not exceed 113° F / 45° C. Because of uneven radiation distribution of the UV light source and different type of construction of the measuring devices by different manufacturers, different readings may appear under the same measurement conditions.

### Calibration:

In order to keep its full function and precision it is recommended to have re-calibration done once per year. Re-calibration will also be necessary after change of battery. PTB traceable calibration acc. to DIN EN ISO / IEC 17025 with certificate

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