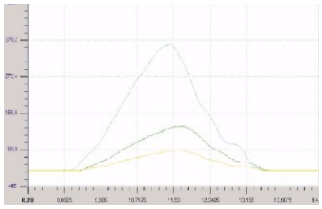
UV-1310 Colour Radiometer + Dosimeter

+ UV-A intensity mW/cm² + UV-A dose mJ/cm²
+ UV-B intensity mW/cm² + UV-B dose mJ/cm²
+ UV-C intensity mW/cm² + UV-C dose mJ/cm²
+ *UV-V intensity mW/cm² + UV-V dose mJ/cm²
+ Full UV intensity mW/cm² + Full UV dose mJ/cm²
+ temperature measuring °C/°F
+ big colour graphic display
+ numerical and graphical display
+ permanent or „triggered“ measuring mode*

The ***UV-1310 Colour Radiometer + Dosimeter*** is a self-contained, high quality UV measuring instrument. It is designed to measure and record UV intensity, UV dosage and temperature in the UV curing process. Measuring results are indicated both, graphically and numerically on a big colour display.

It is equipped with three different UV sensors and one temperature sensor 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 three 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-1310 Colour 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 and UV-C or UV-V) individually and as total Integral of UV-dosage over all three UV-bands. 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.
Additionally it is equipped with an extra sensor for measuring temperatures from 0 to 230° F / 0 to 110° C.
*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/cm².

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.

As an option, the ***UV-1310 Colour Radiometer + Dosimeter*** is available 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 (°C/°F)

Item 62.4. UV-1310 Colour Radiometer + Dosimeter UV-A, UV-B, UV-C + temperature
Item 62.4.1. UV-1311 Colour Radiometer + Dosimeter UV-A, UV-B, UV-V + temperature

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UV-1310 Colour Radiometer + Dosimeter

Technical Data:

Spectral ranges:	UV-A 315 – 410 nm UV-B 280 – 315 nm UV-C 230 – 280 nm or (UV-V 395 – 445 nm)* UV 230 – 410 nm
Max. Power Input	0 to 5,000 mW/cm^2
Measuring range:	0 to 2,000 mW/cm^2 or 2,000 to 5,000 mW/cm^2
Sampling rate:	0.005 sec (200/sec)
Recording cycle:	30 sec.
Readiness phase:	120 sec.
Display range:	0 to 36,000 mJ/cm^2
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:	∅ 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 %

While on the conveyer belt, the ***UV-1310 Colour 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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