

UV-1400 Radiometer + Dosimeter

- + UV-intensity mW/cm^2
- + UV-dose mJ/cm^2
- + permanent or „triggered“ measuring mode*
- + 120 sec recording readiness phase*
- + 120 sec recording cycle*
- + re-chargeable accu-cell



The UV-1400 Radiometer + Dosimeter is a self-contained, high quality UV measuring instrument. It is designed to measure, record and display peak UV intensity and UV dosage in the UV curing process.

In the standard version it is equipped with one UV sensor for the measuring of:

Full UV spectral area 250 – 410 nm

Due to its UV sensor and the integrated microprocessor the UV-1400 Radiometer + Dosimeter can measure and display the peak UV-intensity of the total UV spectrum (mW/cm^2). Additionally, it 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 as the total Integral of UV-dosage over the full UV spectral bands.

*The UV-1400 Radiometer + Dosimeter features a selectable „triggered mode“, i.e. the 120 sec recording cycle starts within a 120 second readiness phase not before the incident UV-intensity exceeds $2 mW/cm^2$.

The sensor is on the back of the unit which also serves as a heat shield. After completion of the measuring cycle the measuring results can be scrolled through on the built in 2 x 16 digit LCD 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-1400 Radiometer + Dosimeter is available in six different measuring ranges*:

(Please state upon order)

Item 55.1 UV-1400 Radiometer, Type 1, Diazo	350 – 460 nm
Item 55.2 UV-1400 Radiometer, Type 2, UV-A	315 – 400 nm
Item 55.3 UV-1400 Radiometer, Type 3, UV	250 – 410 nm
Item 55.4 UV-1400 Radiometer, Type 4, UV-B	280 – 315 nm
Item 55.5 UV-1400 Radiometer, Type 5, UV-C	230 – 280 nm
Item 55.6 UV-1400 Radiometer, Type 6, UV-V	395 – 445 nm

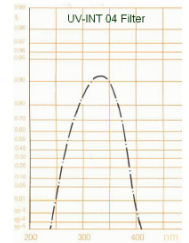
*further spectral ranges available

UV-1400 Radiometer + Dosimeter

Technical Data:

Spectral range:	UV 250 – 410 nm (Standard)
Max. Power Input	0 to 5,000 mW/cm ²
Display:	LCD, 2x16 digits
Display range:	0 to 36,000 mJ/cm ²
Measuring range:	0 to 2,000 mW/cm ²
Sampling rate:	0.005 sec (200/sec)
Recording cycle:	120 sec.
Readiness phase:	120 sec.
Power source:	3.7 V LiPO accu, re-chargeable
Power consumption:	20 μ A
Battery service life:	1,000 re-charging 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° C
Heat protection:	Heat shield on back plate
Base Accuracy:	± 5 %

In the standard version it is measuring an integral in the spectral range from 250-410 nm, with a peak at the area of 330 nm.



While on the conveyer belt, the UV-1400 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