

## UV-4C Power Integrator 614

(also available for LED measurement up to 20 W/cm<sup>2</sup>)

- + UV-A intensity mW/cm<sup>2</sup> + UV-A dose mJ/cm<sup>2</sup>
- + UV-B intensity mW/cm<sup>2</sup> + UV-B dose mJ/cm<sup>2</sup>
- + UV-C intensity mW/cm<sup>2</sup> + UV-C dose mJ/cm<sup>2</sup>
- + UV-V intensity mW/cm<sup>2</sup> + UV-V dose mJ/cm<sup>2</sup>
- + Full UV intensity mW/cm<sup>2</sup> + Full UV dose mJ/cm<sup>2</sup>
- + Permanent or triggered recording\*
- + SD Memory Card (option)
- + graphical and numerical display on a PC (option)
- + re-chargeable accu cell
- + further spectral ranges upon request
- + available up to 20W/cm<sup>2</sup>
- + available with high speed sampling rate 0.0007s(1400/s)



The **UV-4C Power Integrator 614** is a self-contained, high quality UV measuring instrument. It is designed to measure and display peak UV intensity and UV dosage in the UV curing process.

It is equipped with four 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

With these four different UV-bands plus the total UV band, 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-4C Power Integrator 614** can measure and display the peak of the UV-intensity (mW/cm<sup>2</sup>) for each UV-band individually plus the peak of total UV energy.

Additionally, this UV-Integrator is calculating the UV-dosage (mJ/cm<sup>2</sup>) 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) 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.

\*The **UV-4C Power Integrator 614** features a selectable „triggered mode“, i.e. the recording of the measuring starts first if the incident UV-intensity exceeds 2 mW/cm<sup>2</sup>.

The four sensors are on the back of the unit which also serves as a heat shield. After completion of the measuring cycle all 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.

This microprocessor integrator is optionally available equipped with a Card Slot for the use of SD-Memory Cards. All measuring data of a measuring cycle are stored to the SD-Memory card with an identifying file name. The number of storable measuring files depends on the capacity of SD-Memory Card. Data can be loaded to a PC for further editing. The special evaluation software allows to show, edit and store a history of the measuring results of the entire measuring cycle as graphic charts (mW/cm<sup>2</sup>) and (mJ cm<sup>2</sup>) and (°C/°F)

### Item 40.7. UV-4C Power Integrator 614 (UV-A, UV-B, UV-C, UV-V)

\*also available in other spectral range combinations upon request

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## UV-4C Power Integrator 614

### Technical Data:

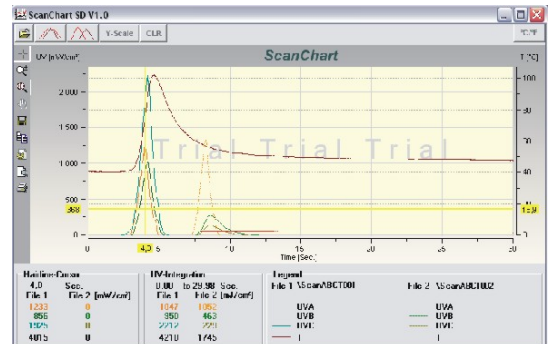
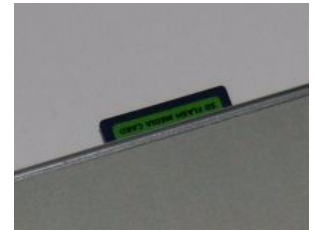
Spectral ranges:	UV-A 315 – 410 nm UV-B 280 – 315 nm UV-C 230 – 280 nm UV-V 395 – 445 nm UV 230 – 410 nm
Temperature range:	32 to 230° F / 0 to 115° C
Display:	LCD, 2x16 digits
Display range:	0 to 36,000 mJ/cm <sup>2</sup>
Measuring range*:	0 to 2,000 mW/cm <sup>2</sup>
Measuring temperature:	32 to 230° F / 0 to 115° C
Sampling rate:	0.01 sec (100/sec)
Recording cycle:	90 sec.
Readiness phase:	120 sec.
Power source:	3.7 V LION Accu
Power consumption:	20 µA
Battery service life:	approx. 1,000 measurements
Dimensions:	140 x 65 x 13 mm (5.5 x 2.4 x 0.55")
Weight:	approx. 8 ounce (250 g)
Operating temperature:	32 to 113° F / 0 to 45° C
Heat protection:	Heat shield on back plate
Base Accuracy:	± 5 %

### OPTION: SD-Memory Card

#### Option:

#### Graphic Chart:

With SD Card slot.  
Stores data to an  
SD-Memory card  
For transmission to  
a computer



While on the conveyer belt, the UV-4C Power Integrator 612 can withstand max. 230° F / 110° C for up to 10 seconds. The temperature of the housing should not exceed 113° F / 45° C.

### 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. Ongoing, PTB traceable calibration with certificate

\*also available up to 20W/cm<sup>2</sup>, display resolution in relation to maximum wattage

\*also available with high speed sampling rate 0.0007s(1400/s)

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