UV-4C-T SD Microprocessor Integrator

(also available for LED measurement up to 20 W/cm²)

+ 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
+ triggered or standard mode
+ LCD display
+ temperature °C/°F
+ SD Memory Card
+ graphic chart on computer
+ re-chargeable accu cell
+ further spectral ranges upon request
+ available up to 20W/cm²
+ available with high speed sampling rate 0.0007s (1400/s)
+ 5.5" (140 mm), height .5" (13 mm)

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

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 350 – 460 nm
UV - 250 – 410 nm
Temperature 32-230°F / 0-110°C

With these four different UV-bands, all of the measuring requirements of UV curing applications can be covered.
Due to its four different UV sensors and the integrated microprocessor the UV-4C-T SD 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 UV-Integrator 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 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.
*This Microprocessor Integrator 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 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 additionally equipped with an SD Memory Card Slot. All measuring data are stored and can be downloaded to a computer. The special evaluation software allows to show, edit and store a history of the measuring results of the entire measuring cycle as graphic and numeric charts (mW/cm^2) and (mJ cm^2)

Item 80.3.8. UV-4C-T SD Microprocessor Integrator UV-A + UV-B + UV-C + UV-V + temp.

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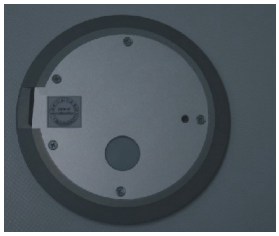
UV-4C-T SD Microprocessor Integrator

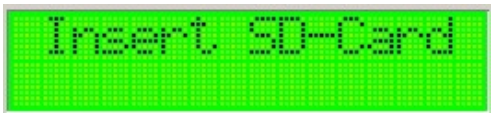
Technical Data:

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 110° C
Max. Power Input*	0 to 2,000 mW/cm^2
Measuring range:	0 to 2,000 mW/cm^2
Sampling rate:	0.01 sec (100/sec)
Recording cycle:	90 sec.
Readiness phase:	120 sec.
Display range:	0 to 36,000 mJ/cm^2
Display:	LCD, 2 x 16 digits
Power source:	3.7 V LiPO Accu
Power consumption:	20 µA
Accu service life:	1,000 re-charging 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° C
Heat protection:	Heat shield on back plate
Base Accuracy:	± 5 %

Special Feature:

Stores data on SD-Memory Card for the download of data to a Computer





While on the conveyer belt, the UV-4C-T SD Microprocessor Integrator 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 with certificate.

***also available up to 20 W/cm², display resolution in relation to maximum power input**
***also available with high-speed sampling rate 0.0007 (1400/sec)**

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