

UV-3C-T Cube Integrator

- + 3D measuring
- + 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
- + Permanent or triggered recording*
- + Temperature $^{\circ}C/^{\circ}F$
- + SD Memory Card (option)
- + graphical and numerical display on a PC (option)
- + re-chargeable accu cell



The UV-3C-T Cube Integrator 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 three different UV sensors and one temperature sensor for the individual measuring of

UV-A + UV-B + UV-C
Temp 32 to 230° F / 0 to 110° C

With these three different UV-bands plus the total UV band and an extra temperature measuring, 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-3C-T can measure, record and display the peak of the UV-energy (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 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.

An extra sensor measures temperatures from 32 to 230° F / 0 to 110° C

*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/cm^2 .

The sensors are on one side of the unit in different directions, while the display is on the opposite side. 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-3C-T Cube Integrator is optionally available equipped with an SD-Card Slot 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)

The UV-3C-T Cube Integrator is available as follows:

- Item 52.4. UV-3C-T Cube Integrator UV-A, UV-B, UV-C
- Item 52.4.1. UV-3C-T Cube Integrator UV-A, UV-B, UV-V*

+ further spectral ranges upon request

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UV-3C-T Cube 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
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
Measuring range:	0 to 115°C / 32 to 232°F
Sampling rate:	0.005 sec (200/sec)
Measuring period:	90 sec.
Readiness phase:	120 sec.
Power source:	3.7 V NiMH Accu-Pack, 70 mA, re-chargeable
Power consumption:	20 µA
Battery service life:	1,000 charging cycles
Dimensions:	2.4" x 2.4" x 2.4" (60 x 60 x 60 mm)
Weight:	approx. 17.5 ounce (500 g)
Operating temperature:	0 to 113° F / 0 to 45° C
Heat protection:	Heat shield
Base Accuracy:	± 5 %

While on the conveyer belt, the *UV-3C-T Cube 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

+ available up to 20W/cm²

+ available with high speed sampling rate 0.0007s (1400/s)

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

