

## UV-2C-T Integrator Square

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

- + special square design 80 x 80 mm / 3 x 3 inches
- + choice of a combination of two different spectral ranges:
- + UV-intensity mW/cm<sup>2</sup>
- + UV-dose mJ/cm<sup>2</sup>
- + Permanent or triggered recording\*
- + LCD display
- + temperature °C/°F
- + 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-2C-T Integrator Square is a self-contained, high quality UV measuring instrument. It is specially designed to measure and display peak UV intensity and UV dosage in the UV curing process.

It is equipped with a combination of two different UV sensors and one temperature sensor.

With two different UV-bands plus an extra temperature sensor, many of the measuring requirements of UV curing applications can be covered.

Due to its two different UV sensors and the integrated microprocessor the UV-2C-T Integrator Square can measure and display the peak of the UV intensity (mW/cm<sup>2</sup>) for each UV-band individually.

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 (e.g. UV-A, UV-B, UV-C or UV-V) individually.

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.

It is equipped with an extra sensor for measuring 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<sup>2</sup>.

The three 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 can optionally be equipped with an SD Memory card slot and comes with 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<sup>2</sup>) and (mJ cm<sup>2</sup>) and (°C/°F).

The following versions are available as a standard:

|  |             |
|--|-------------|
| Item 51.2.6.1. UV-2C-T Integrator Square | UV-A + UV-V |
| Item 51.2.6.2. UV-2C-T Integrator Square | UV-A + UV-B |
| Item 51.2.6.3. UV-2C-T Integrator Square | UV + UV-A   |
| Item 51.2.6.4. UV-2C-T Integrator Square | UV + UV-B   |
| Item 51.2.6.5. UV-2C-T Integrator Square | UV + UV-V   |
| Item 51.2.6.6. UV-2C-T Integrator Square | UV-B + UV-V |
| Item 51.2.6.7. UV-2C-T Integrator Square | UV-C + UV-V |

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## UV-2C-T Integrator Square

### Technical Data:

|                            |   |
|----------------------------|---|
| Spectral ranges available: | UV-A 315 – 410 nm<br>UV-B 280 – 315 nm<br>UV-C 230 – 280 nm<br>UV-V 350 – 460 nm<br>UV 230 – 410 nm |
| Max. Power Input           | 0 to 5,000 mW/cm <sup>2</sup>   |
| Measuring range:           | 0 to 2,000 mW/cm <sup>2</sup>   |
| Measuring range:           | 0 to 115 °C / 32 to 232 °F  |
| Sampling rate:             | 0.01 sec (100/sec)  |
| Recording cycle:           | 90 sec.   |
| Display range:             | 0 to 36,000 mJ/cm <sup>2</sup>  |
| 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:                | 80 mm x 80 mm x 22 mm (3 1/8" x 3 1/8" x 7/8")  |
| Weight:                    | approx.10 ounce (300 g)   |
| Operating temperature:     | 32° to 113° F / 0 to 45° C  |
| Heat protection:           | Heat shield on back plate   |
| Base Accuracy:             | ± 5 %   |

While on the conveyer belt, the UV-2C-T Integrator Square 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. Ongoing, PTB traceable calibration with certificate

**Warranty:** 2 years from the date of purchase

**\*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)**

### Optional Feature:

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

