

UV-Integrator SQUARE special LED versions available

- + special square design 80 x 80 mm / 3 x3 inches
- + UV-intensity mW/cm²
- + UV-dose mJ/cm²
- + Permanent or triggered measuring*
- + LCD display
- + temperature °C/°F (option)
- + 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/cm²
- + available with high speed sampling rate 0.0007s (1400/s)



The UV-Integrator SQUARE 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.

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

Full UV 230 – 410 nm

With this total UV band peak intensity and dose measuring, many of the measuring requirements of UV curing applications can be covered.

Due to its UV sensor and the integrated microprocessor the UV-Integrator SQUARE can measure and display the peak UV-intensity of the total UV spectrum (mW/cm²).

Additionally, this UV-Integrator is calculating the UV-dosage (mJ/cm²) 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.

Optionally it is available with an extra sensor for measuring temperatures from 32 to 230° F / 0 to 110° C.

*This Integrator features a selectable „triggered mode“, i.e. the 90 sec recording cycle starts within a 120 second readiness phase not before the incident UV-intensity exceeds 2 mW/cm².

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.

This microprocessor integrator can optionally be 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/cm²) and (mJ cm²)

The UV-Integrator SQUARE is available in six different measuring ranges*:
(Please state upon order)

Item 51.2.1.1 UV-Integrator SQUARE, Type 1 Diazo	350 – 460 nm
Item 51.2.1.2 UV-Integrator SQUARE, Type 2 UV-A	315 – 410 nm
Item 51.2.1.3 UV-Integrator SQUARE, Type 3 UV	230 – 410 nm
Item 51.2.1.4 UV-Integrator SQUARE, Type 4 UV-B	280 – 315 nm
Item 51.2.1.5 UV-Integrator SQUARE, Type 5 UV-C	230 – 280 nm
Item 51.2.1.6 UV-Integrator SQUARE, Type 6 UV-V	395 – 445 nm

*further spectral ranges available upon request

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UV-Integrator SQUARE

Technical Data:

Spectral range:	UV 230 – 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:	0.01 sec (100/sec)
Recording cycle:	90 sec.
Readiness phase:	120 sec.
Power source:	3.7 V LiPO Accu
Power consumption:	20 μ A
Accu service life:	1,000 charging cycles
Dimensions:	80 mm x 80 mm x 22 mm (3" x 3" 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:	\pm 5 %

While on the conveyer belt, the UV-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

***also available up to 20W/cm², 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

