

## UV-Integrator 152 special LED version

- + UV-intensity  $mW/cm^2$
- + UV-dose  $mJ/cm^2$
- + triggered mode (one UV source)
- + pre-selectable recording cycle 30/60/90 sec.
- + LCD display
- + temperature  $^{\circ}C/^{\circ}F$  (option)
- + SD Memory Card (option)
- + graphic chart on computer (option)
- + re-chargeable accu cell
- + further spectral ranges upon request
- + available up to  $20W/cm^2$



The UV Integrator 152 LED is a self-contained, high quality UV measuring instrument. It is designed to measure, record and display peak UV intensity, UV dosage and temperature in the UV curing process.

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

### Full UV spectral area 350 – 460 nm

Due to its UV sensor and the integrated microprocessor the instrument can measure, record and display the peak UV-intensity of the total UV spectrum ( $mW/cm^2$ ).

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 as the total Integral of UV-dosage over the full UV spectral bands.

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

\*This Microprocessor Integrator features a „triggered mode“, i.e. the pre-selected recording cycle of 30, 60 or 90 sec. starts within a 120 second readiness phase not before the incident UV-intensity exceeds  $2 mW/cm^2$ .

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 5 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.

In an advanced version this microprocessor integrator is available with WiFi technology and an evaluation software for wireless 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-Integrator 152 LED is available as a standard as follows:  
(Please state upon order)

Item 1.21.1. UV-Integrator 152 LED, SL2W Type 21 UV-LED 350 – 460 nm

Item 1.21.2. UV-Integrator 152 LED, SL5W Type 22 UV-LED 350 – 460 nm

Item 1.21.3. UV-Integrator 152 LED, SL10W Type 23 UV-LED 350 – 460 nm

Item 1.21.4. UV-Integrator 152 LED, SL20W Type 24 UV-LED 350 – 460 nm

**\*also available in other spectral ranges upon request**

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## UV-Integrator 152 LED

### Technical Data:

Spectral range:	UV 350 – 460 nm (Standard)
Max. Power Input*	0 to 2,000 mW/cm <sup>2</sup> *
Display:	LCD, 5x16 digits
Display range:	0 to 36,000 mJ/cm <sup>2</sup>
Measuring range:	0 to 2,000 mW/cm <sup>2</sup> *
Sampling rate*:	0.01 sec (100/sec)
Recording cycle:	30/60/90 sec.
Readiness phase:	120 sec.
Power source:	3.7 V LiPO Accu
Power consumption:	20 µA
Accu service life:	1,000 re-charging cycles
Dimensions:	3" x 2" (80 x 50 mm) , height ½" (13 mm)
Weight:	approx. 5 ounce (150 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-Integrator 152 LED can withstand max. 230° F / 110° C for up to 10 seconds. The temperature of the housing should not exceed 113° F / 45° C.  
CAUTION when measuring with high power LED sources!

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 20 W/cm<sup>2</sup>, display resolution in relation to maximum power input**