

# THE WIDE RANGE OF UV - IR TECHNOLOGY



## UV-T Microprocessor Integrator

- + **UV-intensity  $mW/cm^2$**
- + **UV-dose  $mJ/cm^2$**
- + **Temperature measuring °C/ °F**
- + **permanent or „triggered“ measuring mode\***
- + **SD-Memory Card Slot (option)**
- + **graphic chart on computer (option)**
- + **re-chargable accu cells with charger**



The UV-T Microprocessor Integrator 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 and one temperature sensor for the measuring of:

**Full UV 230 – 410 nm**  
**Temp 32° to 230° F / 0° to 110° C**

With this total UV band measuring and an extra temperature measuring, most of the measuring requirements of UV curing applications can be covered.

Due to its UV sensor and the integrated microprocessor the UV-T 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.

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 two 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.

As an option, this microprocessor integrator is available with an SD-Memory 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 ( $mJ/cm^2$ ) and (°C/°F)

The UV-T Microprocessor Integrator is available in six different measuring ranges:

(Please state upon order)

<b>Item 2.3.1 UV-T Microprocessor Integrator, Type 1 Diazo</b>	<b>350 – 460 nm</b>
<b>Item 2.3.2 UV-T Microprocessor Integrator, Type 2 UV-A</b>	<b>315 – 410 nm</b>
<b>Item 2.3.3 UV-T Microprocessor Integrator, Type 3 UV</b>	<b>230 – 410 nm</b>
<b>Item 2.3.4 UV-T Microprocessor Integrator, Type 4 UV-B</b>	<b>280 – 315 nm</b>
<b>Item 2.3.5 UV-T Microprocessor Integrator, Type 5 UV-C</b>	<b>230 – 280 nm</b>
<b>Item 2.3.6 UV-T Microprocessor Integrator, Type 6 UV-V</b>	<b>395 – 445 nm</b>

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### UV-IR TECHNOLOGY

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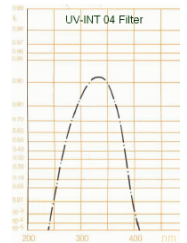


## UV-T Microprocessor Integrator

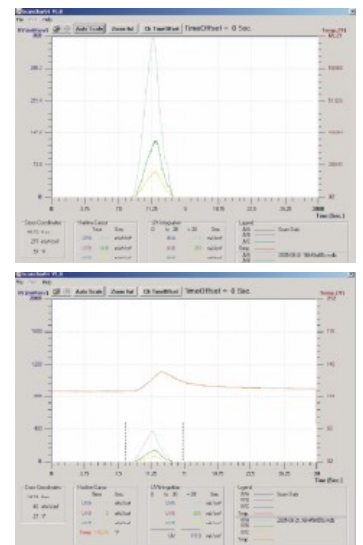
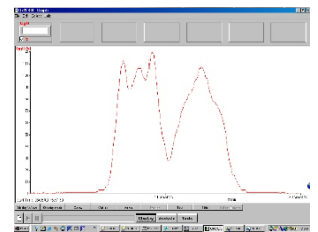
### Technical Data:

Spectral range:	UV 230 – 410 nm (Standard)
Max. Power Input	0 to 5,000 mW/cm <sup>2</sup>
Measuring range:	0 to 230° F / 0 to 110° C
Display:	LCD, 2x16 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:	0.005 sec (200/sec)
Recording cycle:	30 sec.
Readiness phase:	120 sec.
Power source:	2 x 3.7 V LiPO Accu
Power consumption:	20 µA
Accu service life:	1,000 re-charging cycles
Dimensions:	Ø 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 %

In the standard version it is measuring an integral in the spectral range from 230-410 nm, with a peak at the area of 330 nm.



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



While on the conveyer belt, the UV-T 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 acc. to DIN EN ISO / IEC 17025 with certificate

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