

UV Power Integrator 10

- + UV intensity mW/cm^2
- + UV dose mJ/cm^2
- + temperature*
- + 2 line LCD display
- + extra flat only 10 mm / 4 inch
- + re-chargeable accu-cells w. charger



The UV Power Integrator 10 is a small, only 10 mm flat, self-contained, pass-through UV-Microprocessor Integrator. It is specially designed to measure, record and display peak UV intensity and UV dosage and optionally temperature, in the UV curing process of narrow web presses and in some applications of the flexo print.

It is equipped with one UV sensor and optionally with one additional temperature sensor for the individual measuring of

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

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

It measures only 4.5" x 2.5" x 0.4" (117 x 64 x 10 mm)

Due to its integrated microprocessor the UV Power Integrator 10 can measure, record and display the peak of the UV-intensity (mW/cm^2).

Additionally, it 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 a total Integral of UV-dosage over the full UV spectral area 230 – 410 nm.

This allows to determine a profile of how that energy is delivered at which intensity.

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

The 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.

The measuring period is 30 seconds at a sampling rate of 200/sec.

The following versions are available

46.5.1 UV Power Integrator 10, Type 1 Diazo	350 – 460 nm
46.5.2 UV Power Integrator 10, Type 2 UV-A	315 – 400 nm
46.5.3 UV Power Integrator 10, Type 3 UV	230 – 410 nm
46.5.4 UV Power Integrator 10, Type 4 UVB	280 – 315 nm
46.5.5 UV Power Integrator 10, Type 5 UV-C	230 – 280 nm
46.5.6 UV Power Integrator 10, Type 6 UV-V	395 – 445 nm

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Technical Data:

Available spectral range:	UV 230 – 410 nm UV-A 315 – 400 nm UV-B 280 – 315 nm UV-C 230 – 280 nm UV-V 395 – 445 nm DIAZO 350 – 460 nm
Temperature range:	0 to 230° F / 0 to 110° C
Max. Power Input	0 to 5,000 mW/cm ²
Measuring range:	0 to 2,000 mW/cm ²
Measuring period:	30 sec.
Sampling rate:	0.005 sec (200/sec)
Display:	LCD, 2 lines x 16 digits
Power source:	2 x 3.7 V LiPO accu-cells, re-chargeable
Power consumption:	20 µA
Accu service life:	1,000 hrs charges
Dimensions:	4.5" x 2.5" x 0.4" (117 x 64 x 10 mm)
Weight:	approx. 4 ounce (120 g)
Heat protection:	Heat shield on back plate
Operating temperature:	32° to 113° F / 0 to 45° C
Base Accuracy:	± 5 %

While on the conveyer belt, the UV Power Integrator 10 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