UV-MC SD Microprocessor Integrator

Low intensity UV-C measurement

+ UV-intensity mW/cm²
+ UV-dose mJ/cm²
+ triggered or standard mode
+ LCD display
+ temperature °C/°F (option)
+ SD Memory Card
+ graphic chart on computer
+ re-chargeable accu cell
+ further spectral ranges upon request
+ available up to 20W/cm²
+ available with high speed sampling rate 0.0007s(1400/s)
+ ∅ 5.5" (140 mm), height .5" (13 mm)

The UV-MC SD Microprocessor Integrator Low intensity is a self-contained, high quality UV measuring instrument. It is designed to measure, record 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:

UV-C 230 – 280 nm

With this total UV band peak intensity and dose measuring, most of the measuring requirements of UV curing applications can be covered.
Due to its UV sensor and the integrated microprocessor the UV-MC SD can measure, record 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 0 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/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 is additionally 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-MC Microprocessor Integrator SD is available in various different measuring ranges*:
(Please state upon order)

Item 3.1.1.1 UV-MC SD Microprocessor Integrator, Type 1 Diazo	350 – 460 nm
Item 3.1.2.1 UV-MC SD Microprocessor Integrator, Type 2 UV-A	315 – 400 nm
Item 3.1.3.1 UV-MC SD Microprocessor Integrator, Type 3 UV	230 – 410 nm
Item 3.1.4.1 UV-MC SD Microprocessor Integrator, Type 4 UV-B	280 – 315 nm
Item 3.1.5.1 UV-MC SD Microprocessor Integrator, Type 5 UV-C	**230 – 280 nm**
Item 3.1.6.1 UV-MC SD Microprocessor Integrator, Type 6 UV-V	395 – 445 nm

***further spectral ranges available upon request**

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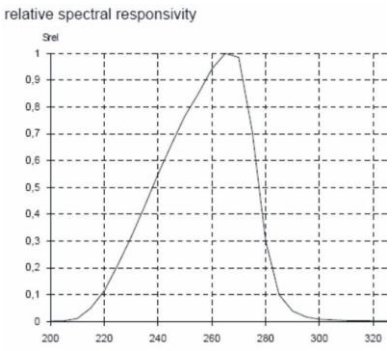
UV-MC SD Microprocessor Integrator

Low intensity UV-C measurement

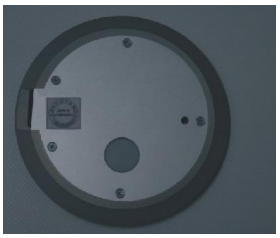


Technical Data:

Spectral range:	UV-C 230 – 280 nm (Standard)
Max. Power Input*:	0 to 2,000 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 (0 to 200 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 µA
Accu service life:	1,000 re-charging cycles
Dimensions:	∅ 5.5” (140 mm), height ½” (13 mm)
Weight:	approx. 17.5 ounce (500 g)
Operating temperature:	0 to 113° F / 0 to 45° C
Heat protection:	Heat shield on back plate
Base Accuracy:	± 5 %

Special Feature:

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



While on the conveyer belt, the UV-MC SD 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. Ongoing, PTB traceable calibration with certificate

***also available up to 20 W/cm², display resolution in relation to maximum power input**
***also available with high-speed sampling rate 0.0007 (1400/sec)**

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