

# UV-Micro Puck Multi

## Instruction Manual



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Subject to change without prior notice

## 1. Description

### ***UV-MICRO PUCK MULTI Integrator***

- + wireless sensors**
- + UV Dose mJ/cm<sup>2</sup>**
- + up to 4 different UV-spectral areas**
- + up to 8 wireless sensors**

The UV-MICRO PUCK Multi Integrator is a high quality UV-measuring system used to measure UV-dose in hard to reach areas of UV-curing units. With up to eight connectable wireless sensors, it is specially practical for use in narrow WEB – Presses, in Label Printing machines as well as for UV Measurement of 3D objects.

In its standard version, the UV-Micro Puck Multi measures the UV area of:

#### **UV 230-410 nm**

A maximum of 8 different wireless sensors in up to four different UV-spectral areas can be connected. This fact makes the UV-Micro Puck Multi a very versatile multi area measuring instrument as four different spectral areas can be measured in one measuring cycle. After the measuring cycle, the sensors are connected one by one to the hand unit in order to read out UV-dose in mJ/cm<sup>2</sup>. The UV-sensors are numbered and marked with the respective UV-spectral area.

As a standard, the UV-sensor number one will be read-out first. Further sensors follow by pre-selecting at the hand unit.

After read-out, the measured value remains stored in the UV-sensor. The internal storage of measured values enables additive measurements.

To reset a sensor to zero, connect the sensor to the base unit and press the “Reset” button of the hand unit.

The UV-MICRO PUCK MULTI measuring system consists of:

1. the hand unit with the electronics and display
2. UV-sensor units with sensor opening and plug (up to 8 Sensors).

The UV-MICRO PUCK MULTI Integrator is available in four different UV-spectral areas:

M007-135	All UV	230 – 410 nm
M007-136	UV-A	315 – 410 nm
M007-137	UV-B	280 – 315 nm
M007-138	UV-C	230 – 280 nm

## 2. Technical data

Spectral range:	UV 230 – 410 nm (Standard) or other
Max. Power Input	0 to 5,000 mW/cm <sup>2</sup>
Display:	LCD, 2x16 digits
Display range:	0 to 5,000 mJ/cm <sup>2</sup>
Measuring range:	0 to 2,000 mW/cm <sup>2</sup>
Recording cycle:	∞
Power source:	2 x long life 3.6 V Lithium Battery
Power consumption:	20 µA
Battery service life:	2,000 hrs
Dimensions:	hand unit: 5.5" (120 mm) x 3" (75 mm) x 0.4"(10 mm) Sensor round: Ø 1.5" (40 mm) x 0.4" (10 mm) Sensor long: 1.5" (40 mm) x 5/8" (14mm) x 1/2" (12 mm)
Weight:	hand unit: approx. 6 ounce (150 g) sensor: approx. 1 ounce (30 g)
Operating temperature:	32 to 113° F / 0 to 45° Centigrade
Base Accuracy:	± 5 %

While on the conveyer belt, the UV-Sensor of the UV-Micro Puck Multi Integrator can withstand max. 230° F / 110° C up to 10 seconds.

### 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

### Attention:

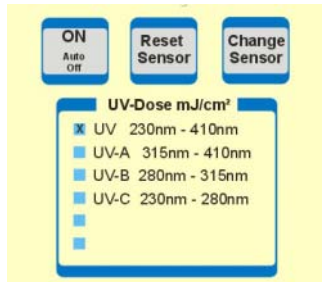
1. Please avoid shaking the UV-Integrator.
2. Do not expose to excessive heat.
3. UV-light is hazardous to your health. Avoid direct UV-light to your eyes and to your body.

**Warranty:** 2 years from the date of purchase

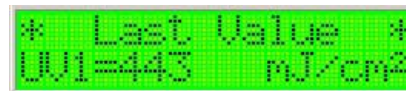
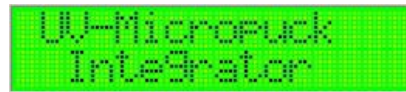
### 3. Instruction for Use

#### Execution of a measuring cycle:

Turn on the UV-Micro Puck Multi Integrator by pressing the “ON” button.

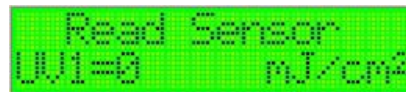


In short sequences the following information will appear in the display:



(stored measuring values of the last measuring cycle –example-)

After approx. 10 seconds UV-Micro Puck Multi Integrator is ready for a measuring cycle and the following display appears:



Place the UV-Sensors with the respective sensor openings to the direction of the UV-light source at the desired points where the measuring of the UV-Dose shall be contributed.

After passage of the measuring cycle, connect the sensors one by one, beginning with sensor no. 1, to the hand unit.

As a standard the base unit will ask to connect sensor no 1 first. The respective UV-dose value in mJ/cm<sup>2</sup> instantly appears in the display identifying the sensor number. (shown here as number 1).



By pressing the button “Change Sensor”, the next sensor to be read-out can be selected. To follow a fixed sequence of numbers is not absolutely necessary. Connect the selected sensor to the hand unit. The respective UV-dose in mJ/cm<sup>2</sup> instantly appears in the display identifying the sensor number. (shown here as number 2).



**Important:**

The UV-sensors are calibrated individually and assigned to one measuring channel of the base unit. In order to prevent a mix up the sensors are numbered in sequence and marked with the respective UV-spectral area.

***NOTE: If there is a mix up between the UV-sensor and the proper measuring channel of the hand unit, the wrong UV-dose values will be displayed.***

**Attention:**

For saving of battery energy and thus extending battery life time the UV-Micro Puck Multi Integrator turns off automatically after approx. 45 secondss.

Before automatic turn off the display will indicate the upcoming turn off by indicating



The measuring result of the last sensor connected to the hand unit will be stored internally. After this the unit turns off automatically.

When pressing the “ON” button, this information will be displayed again during the starting sequence.

For the execution of a new measurement, proceed as described above.