

# THE WIDE RANGE OF UV - IR TECHNOLOGY



## UV-MICROLOG D

- + **UV intensity  $mW/cm^2$**
- + **UV dose  $mJ/cm^2$**
- + **temperature**
- + **permanent or „triggered“ measuring mode\***
- + **USB ComPort**
- + **graphic chart on PC**
- + **LCD display**



The UV-MICROLOG D is a small, only 6 mm flat, self-contained, pass-through UV data logging unit. It is specially designed to measure, record and display peak UV intensity, UV dosage and 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 one 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 0.25" (117 x 64 x 6 mm)

Due to its integrated microprocessor the UV-Microlog D 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 extra sensor measures temperatures from 0 to 230° F / 0 to 110° C

\*This Microlog 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.

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

The UV-Microlog D is equipped with an USB ComPort for the download of data to a computer. It comes with a special data acquisition and evaluation software that enables the operator to show, edit and store the graphic as well as the numeric measuring results of the entire measuring cycle in ( $mW/cm^2$ ) and ( $mJ/cm^2$ ) and (°C/°F).

**Item 16.3 UV-Microlog D, Type 3, UV**

**230 – 410 nm**

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UV-IR TECHNOLOGY

Talstr. 37 \* D-63128 Dietzenbach \* Germany  
Tel. +49(0)6074 483079 Fax +49(0)6074 483078  
www.uv-ir-technology.de \* mail: info@uv-ir-technology.de

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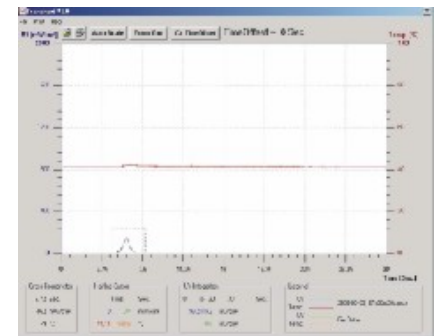
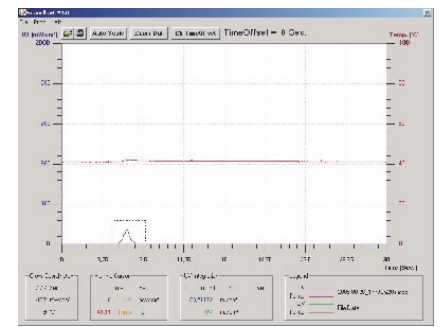
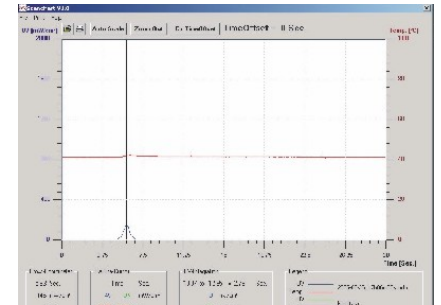
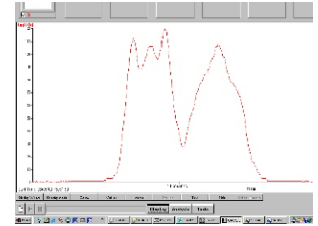
## UV-MICROLOG D

### Technical Data:

Spectral range:	UV 230 – 410 nm
Temperature range:	0 to 230° F / 0 to 110° C
Max. Power Input	0 to 5,000 mW/cm <sup>2</sup>
Measuring range:	0 to 2,000 mW/cm <sup>2</sup> or 2,000 to 5,000 mW/cm <sup>2</sup>
Measuring period:	30 sec.
Readiness phase:	120 sec.
Sampling rate:	0.005 sec (200/sec)
Display:	LCD, 2 lines x 16 digits
Power source:	2 x long life 3.0 V Lithium Battery
Power consumption:	20 µA
Battery service life:	2,000 measuring cycles
Dimensions:	4.5" x 2.5" x 0.25" (117 x 64 x 6 mm)
Weight:	approx. 3 ounce (85 g)
Heat protection:	Heat shield on back plate
Operating temperature:	32° to 113° F / 0 to 45° C
Base Accuracy:	± 5 %

### Graphic Chart:

USB ComPort  
for the download  
of data  
to a Computer



While on the conveyer belt, the UV-Microlog D 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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