

# THE WIDE RANGE OF UV - IR TECHNOLOGY



## UV-Ceramic Probe 4-45

- + **UV-intensity  $mW/cm^2$**
- + **compact size**
- + **portable**
- + **light-weight**
- + **18" non conductive ceramic probe**



The UV-Ceramic Probe 4-45 is a high quality electro-optic UV measuring instrument. It is self-contained, battery-operated, portable, light-weight and easy to handle.

It is specially designed to measure and display peak UV intensity in hard accessible curing chambers such as e.g. narrow web presses in order to evaluate system performance.

As the harsh physical conditions inside a UV curing chamber include extreme temperature variations, the UV-Ceramic Probe 4-45 is designed to withstand these conditions as well as protect the operator and instrument from damage or electrical shock.

The 18" rigid light guide with a diameter of 4mm is completely made of non-conductive ceramic material to insulate and protect the user from accidental shock.

A special designed input aperture at the tip of the UV-Ceramic Probe 4-45 light guide detects all wavelengths of ultraviolet, visible and infrared radiation. The light is directed down the light guide to the base of the instrument where a UV filter passes the UV light of interest to the photo detector.

With the increasing employment of narrow web presses and flexo print technology, it has become necessary to establish a method of measuring system performance. Degradation of UV lamps, light guides, and reflectors can cause decreases in irradiance and create curing problems.

The UV-Ceramic Probe 4-45 is the right answer and an effective method of quantifying UV output. It provides the operator with instant feedback as to the performance of his UV curing system.

A 9 V battery block ensures extremely long life in excess of 100,000 readings.

The measurements taken can be viewed directly on the LCD display.

It can monitor UV intensities up to  $9,990 mW/cm^2$

The UV-Ceramic Probe 4-45 is available in the following measuring ranges:

(Please state upon order)

**Item 26.1.2 Type 2 UV-A**

**315 – 410 nm**

**Item 26.1.3 Type 3 UV**

**230 – 400 nm (Standard)**

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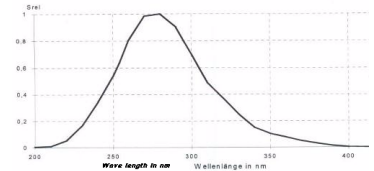


## UV-Ceramic Probe 4-45

### Technical Data:

Spectral range:	UV 230 – 400 nm (Standard)
Max. Power Input	0 to 9,990 mW/cm <sup>2</sup>
Display:	LCD, 3 digits X 10
Display range:	0 to 9,990
Measuring range:	0 to 9,990 mW/cm <sup>2</sup>
Power source:	9 V Block Battery
Power consumption:	20 µA
Battery service life:	2,000 hrs (100.000 Measurements)
Dimensions:	6.25" (158 mm) x 1.6" (40 mm) x 1.3" (34 mm)
Weight:	approx. 5 ounce (125 g)
Length of light guide:	approx. 18" (45 cm)
Overall length:	approx. 24.25"
Operating temperature:	0 to 122° F / 0 to 50° C
Base Accuracy:	± 5 %

Standard spectral range 230-400 nm, with a peak at 280 nm.



The maximum permissible temperature for the light guide is 400° C / 750° F.  
The temperature of the housing should not exceed 122° F / 50° 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

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