SpotCure® UV Intensity Meter

Features

- Measures UV intensity up to 20W/cm² (Standard Range) or 200W/cm² (Extended Range)
- Compact size, portable
- Accepts multiple light guide sizes
- Totally self-contained, battery-powered

Applications

- Monitor UV spot curing system performance
- Measure individual UV lamp performance
- Measure light guide degradation
- Optimize light guide positioning
- Determine proper UV intensity required for curing any material
- Meet ISO 9000 requirements

Introduction

As UV spot curing technology has evolved, it has become increasingly important to establish a method of measuring system performance. The EIT SpotCure UV Intensity Meter is an easy, portable, effective method of quantifying UV output.

The EIT SpotCure UV Intensity Meter is a self-contained, electro-optic instrument designed to measure and display the intensity emitted by a UV curing system. Degradation of UV lamps, light guides, and reflectors can cause decreases in intensity and create curing problems. The EIT SpotCure UV Intensity Meter is designed to provide the operator with instant feedback as to the performance of the spot curing system.

Configuration

The EIT SpotCure UV Intensity Meter is totally portable, self-contained, and battery-operated using a special lithium battery stick for extremely long life – in excess of 100,000 readings! The measurement head which contains the optics, is attached to one end of the cylindrical instrument. Light guide adapters that fit into the measurement head are available to fit most size light guides. An EIT SpotCure UV Intensity Meter can be configured to read one of the following UV transmission bandwidths: 250-260nm, 280-320nm, 320-390nm or 395-445nm.



Operation

The portable, EIT SpotCure is simple to use. Its compact, flashlight-like shape (4.60" long by 1.74" diameter) can comfortably be gripped in one hand.

In operation, the instrument is gripped in one hand while the light guide is inserted with the other hand. Once a spot curing system's light wand is inserted into the measurement head, the "START" switch is depressed and a measurement is taken. When the "START" switch is released, the measurement is frozen and can be viewed on the LDC display. It will be held for approximately 3 minutes until the display times out or until the "START" switch is depressed again. Adapters insert into the measurement head to accommodate the standard light wands on the market. This flexibility allows the instrument to be used in a variety of monitoring applications.

Short, simple operation instructions are printed on the outside of the instrument. The EIT SpotCure UV Intensity meter is designed to withstand the rugged UV environment and extremely high intensities that can be associated with UV spot curing. It can monitor UV intensities up to 20W/cm^2 for the standard version and 200W/cm^2 in the Extended Range version.

Specifications

Intensity Range Standard Versions (& Full Scale)

UVA (20W); UVB (2W), UVC (200mW), UVV (20W)

Extended Range Versions (& Full Scale)
UVA (200W), UVB (20W), UVV (200W)

Resolution Standard Version 10mW/cm² Extended Range Version 100mW/cm²

Accuracy +/-5% typical, +/-10% maximum

Display 3 ½ digit LCD

Power Source Lithium battery stick

Battery Life 12,500 hours continuous operation (over 100,000 readings)

Overall Dimensions 6.40"L x 1.74" Diameter (16.26cm x 4.42cm); Measurement head – 2.13" Diameter

(5.14cm)

Weight 12.8 oz. (358 grams)

Operating Temperature 0-70° C

Display Time 2.5 to 5 minutes

Spectral Ranges 250-260nm (UVC), 280-320nm (UVB), 320-390nm (UVA), or 395-445nm (UVV)

Case materials Aluminum, polyester, quartz

Specifications subject to change

Ordering Information

Model SP254 (250-260nm)

Model SP313 (280-320nm)

Model SP365 (320-390nm)

Model SP405 (395-445nm)