

UVB SENSOR PMA 2103 BIOLOGICALLY- WEIGHTED ERYTHEMA

SENSORS
SPF CLINICAL AND LABORATORY
RESEARCH

Delivery on all products is
Stock to 2 weeks.

Every product is calibrated to
NIST traceable standards
before shipment.



The UVB Sensor PMA 2103 biologically-weighted erythema gives an accurate measurement of biologically weighted ultraviolet radiation from Solar Simulators manufactured by Solar Light Co. Special mounting hardware allows direct coupling with 8mm or 10mm Liquid Light Guides (LLG's).

The sensor's spectral response follows closely the erythema action spectrum (Fig.1.)[1]. Due to built-in Teflon diffuser the detector has negligible azimuthal error making the measurement insensitive to the rotation of the detector. Extended measurement range of 600 MED/Hr enables measurement of intense radiation.

In conjunction with the Solar Simulator and XPS200 Xenon Lamp Power Supply the PMA2100 with the PMA2103 detector can operate as a smart dose controller/monitor substantially enhancing the functionality of the Solar Simulator.

$$1 \text{ [MED/Hr]} = 5.83 \text{ [}\mu\text{W/cm}^2\text{]}$$

This formula is programmed into the PMA2103 sensor allowing for easy conversion of units. Consequently, the integrated effective dose can be expressed in [mJoules/cm²] or MED.

Uses

The PMA2103 is designed to be used with Liquid Light Guides in SPF Testing

Alternate Views



Applications

Phototherapy
Environmental monitoring
Material testing

Laboratory and industrial
radiometry
Skin and SPF testing
Clinical studies

UVB transmission measurements
Agriculture

Features

High sensitivity
Dynamic range
2*10⁵
Excellent long term stability
Cosine corrected
NIST traceable calibration
Radiometric and Biological units

Specifications

Spectral response

Follows erythema action spectrum Figure 1

Range

600 [MED/Hr], 3.5 [mW/cm²]

Display resolution

0.01 [MED/Hr], 0.1[μW/cm²]

Operating environment

32 to 120 °F (0 to +50 °C) no precipitation

Temperature coefficient

1% /°C

Cable

5ft (1.5m)

Diameter

1.6" (40.6 mm)

Height

1.8" (45.8 mm)

Weight

7.1 oz. (200 grams) Analog versions of this detector are available
See PMA1103

