

PMA 2114 SENSOR WITH BEAM SPLITTER ADAPTER

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.



Special mounting hardware allows direct coupling for the PMA 2114 Sensor with beam splitter adapter with the beam-splitter available for 15S and 16S Solar Simulators.

Its spectral response covers the 320 to 400nm range (Fig. 1). The measured irradiance is displayed in mW/cm^2 or W/m^2 . Consequently, the integrated dose is shown in $Joules/cm^2$ or $kJoules/m^2$. The PMA2114 has a resolution of $0.001 mW/cm^2$ and a full scale of $200mW/cm^2$ allowing measurement of very weak and very strong signals with the same detector. The effect of stray light is negligible.

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.

Several biologic action spectra, functions relating wavelength of the radiation and its biologic effect, are shown in Figure 3. While they all show strong dominance of UV-B effectiveness there is still fair UVA response.

Uses

The PMA2114 UVA sensor provides fast and accurate irradiance measurement in the UVA region from Solar Simulators manufactured by Solar Light Co.

Alternate Views



Applications

Laboratory and industrial radiometry
UV curing, printing and photolithography
Skin and SPF testing

Clinical studies
Phototherapy
Environmental monitoring

Material testing
UV-A transmission measurements

Features

High sensitivity
Dynamic range

2×10^5

Excellent long term stability
Cosine corrected

NIST traceable calibration
Radiometric units

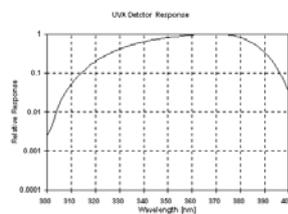
Specifications

Spectral response

320-400nm, Figure 1
Angular response

5% for angles $<60^\circ$
Range

200 [mW/cm^2] or 2000 [W/m^2]



Display resolution

0.001 [mW/cm^2], 0.01 [W/m^2]

Operating environment

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

$<0.1\%/^\circ C$

Cable

5ft (1.5m)

Diameter

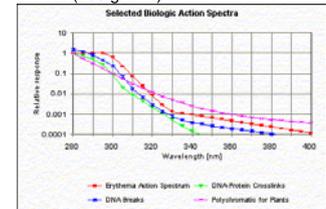
1.6" (40.6 mm)

Height

1.8" (45.8 mm)

Weight

7.1 oz. (200 grams)



Common Sources for UVA

low pressure fluorescent lamps
high pressure mercury and metal halide lamps
high pressure xenon lamps
sunlight