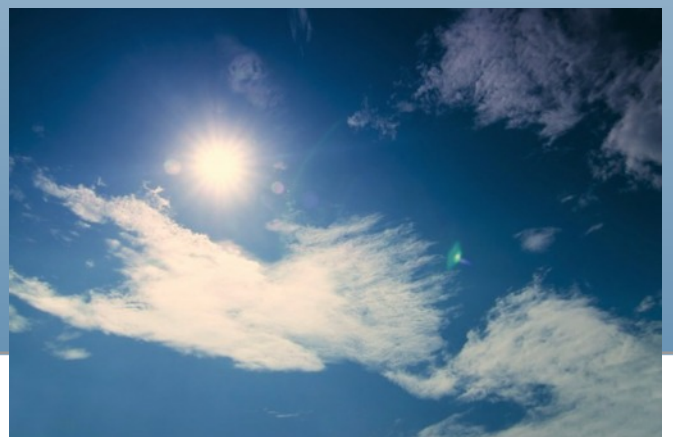




## UV203 RADIOMETER

Designed to accurately measure a wide range of ultraviolet intensities with up to three distinct spectral responses across the UV spectrum.



# UV203 RADIOMETER

The Irradian radiometer (*model UV203*) is a versatile direct reading instrument designed specifically for measuring UV irradiance. Up to four ultra-violet spectral responses may be used with each radiometer for measurements across the UV spectrum. Detector options include standard laboratory detectors with interchangeable filter rings and sealed waterproof detectors. A range of input accessories is available including high accuracy cosine input diffusers and remote input systems.

## OPERATION

The detector, having with one of the available filter rings attached, is placed in the required position to measure from a UV light source. The radiometer display is switched on and zeroed using the supplied blanking cap. The desired UV range is selected on the front panel and the measurements are read directly from the display. The readings can be held at the measurement value and a special function mode allows easy determination of the *Average*, *Maximum* and *Minimum* stored values. Dosage or exposure can also be read using the *Integrate* function. Remote meter operation is possible using the optional computer interface cable accessory.

## APPLICATIONS

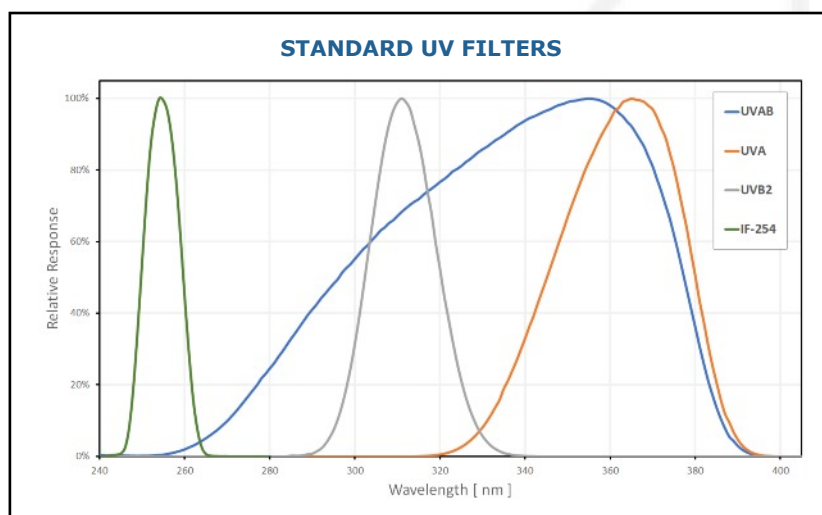
- Measurement of mercury discharge lamps, in photolithography, printing and UV curing.
- Monitoring and measuring UV sources in phototherapy.
- Photostability testing.
- Plant science.



## FEATURES

- Compact and robust, ideal for field, laboratory and factory use.
- Detachable detector head for remote sensing.
- Easy to operate with micro-processor control.
- Auto or manual ranging detector amplifier.
- Special functions including integration and average.
- Direct reading in  $\text{mW/m}^2$  and  $\text{W/m}^2$ .
- Wide range of narrow band and broadband filters available.
- High accuracy cosine corrected diffuser assembly.





FILTER	$\lambda_{\text{peak}}$	BANDWIDTH FWHM
IF-254	$254 \pm 2 \text{ nm}$	$12 \pm 2 \text{ nm}$
UVA-Cos	$365 \pm 2 \text{ nm}$	$35 \pm 2 \text{ nm}$
UVB2-Cos	$311 \pm 2 \text{ nm}$	$19 \pm 2 \text{ nm}$
UVAB-Cos	$352 \pm 5 \text{ nm}$	$79 \pm 4 \text{ nm}$

## SPECIFICATION

The Irradian digital radiometer comprises of a microprocessor controlled display unit with battery, laboratory detector with integral amplifier, UVA-Cos filter ring, UVB2-Cos filter ring, IF-254 filter ring, calibration certificate, user handbook, blanking cap, and carrying case. Optional USB/RS232 computer interface cable accessory available.

### DISPLAY UNIT

Model:	UV203
Design:	Portable microprocessor controlled meter with LCD, auto or manual ranging, simple keypad operation, battery powered. Remote operation via interface cable.
Ranges:	Refer detector table.
Units	$\text{mW/m}^2$ and $\text{W/m}^2$
Accuracy:	$\pm 1\%$ , $\pm 1$ digit on display.
Keypad Operations:	Power on / off action, Hold display on / off action, Zero stores offset for subtraction from subsequent readings, Manual or auto ranging gain control, Average, Maximum, Minimum and Integrate functions.
Display:	4½ digit LCD, 10 mm high numerals.
Power Supply:	PP3 battery. Operating life 30-50 hrs.
Dimensions:	80 mm x 45 mm x 150 mm.
Weight:	Approximately 0.4 kg.
Calibration:	The UV203 can be calibrated with monochromatic light at $\lambda_{\text{peak}}$ or at a mercury emission line. Spectroradiometric calibration with specified sources is also available. All calibration standards are traceable to NPL optical metrology standards. Absolute calibration accuracy $\pm 7.5\%$ .

### LABORATORY DETECTOR

Model:	DET203UV
Design:	GaAsP photodiode with integral detector amplifier and signal to frequency converter. Aluminium housing with removable filter rings and 1.0 m cable.
Unfiltered Range:	190 nm to 680 nm.
Linearity:	Better than 1% through ranges.
Dimensions:	38 mm $\varnothing$ x 30.0 mm high.

### DET203UV DETECTOR / FILTER RING STANDARD RANGES

Full Scale Range	UVA-Cos	UVB2-Cos	UVAB-Cos	IF-254
19.999 $\text{mW/m}^2$				✓
199.99 $\text{mW/m}^2$	✓		✓	✓
1.9999 $\text{W/m}^2$	✓	✓	✓	✓
19.999 $\text{W/m}^2$	✓	✓	✓	✓
199.99 $\text{W/m}^2$	✓	✓	✓	✓
1999.9 $\text{W/m}^2$	✓	✓	✓	
19999 $\text{W/m}^2$		✓		
19999 x 10 $\text{W/m}^2$				

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