

Meters • UVB BIOMETER

Model 501

Permanent Outdoor UVB Solar Radiation Measurements



Applications

- Measurement of biologically effective ultraviolet radiation from sunlight and from artificial sources with wavelengths above 280nm.
- Plant, marine, climatological ozone or other biological impact studies that require continuous field measurements over long periods of time.
- Correction of spectroradiometric measurement errors cause by the variations of irradiance during the scan.
- Sunburning time measurements for media and research organizations that provide public information about the effects of UV solar radiation.

Features and Benefits

- High Accuracy
- Easy To Use
- Fully Portable
- Instantaneous Results
- Non-Volatile Memory
- Stores Up to Six Months 1 Hour Data Samples and Temp from Two Sensors
- Dose Period Selectable from 1 Min to 1 Hour
- Measures Erythema or non-weighted UVB

The UVB Biometer model 501 radiometer is a meteorological grade instrument that measures UVB solar radiation outdoors and underwater (5m max depth). This permanent outdoor UVB Biometer model 501 radiometer solar radiation measurements system is used in weather stations and meteorological observatories world wide. Robertson Berger technology along with World Class manufacturing practices and NIST traceable calibrations ensure a high degree of reproducibility and comparability from unit to unit.

All Radiometers have an analog voltage output which is proportional to the measured solar radiation UV irradiance. In addition all UVB Biometer model 501 radiometers have a controlled internal temperature that ensure a higher level of accuracy as compared to other units.

The model 501 is a complete plug-and-play system including the detector for outdoor use, computerized controller/data logger, and connecting cables. It is easy to install and use. It can be configured to follow the Erythema Action Spectrum or the non-weighted UVB Spectrum.



Specifications	
Spectral Range	280-320nm
Measurement Range	0-10 MED/Hr
Angular Response	Within 5% of Ideal Cosine
Response Time	1 Second (0.1 second on demand)
Temp Correction	1% per C
Operating Conditions	-40 to 50°C (-40 to 120 °F)
Dimensions (HxDiam)	5.5" x 5.9" (14 x 15 cm)
Weight	2 lbs (0.9Kg)(without cable)
Cable	Hermetic Connector, 50' std., Up to 200' Option, 0.1lb/ft2
Mounting	3 Leveling Feet, Circular Level
Sensor Signal Output	0-2.5V,0.25[V/(MED/hr)], 0.5mA/hr
Sensor Temp Output	0-1V, 1V=25 C, Sensitivity 20mV/ C, 0.5mA max
Power Requirements	5.5-25V/5mA Max for Signal Circuit. 11-15V/1A Max for Temp Stability
Ordering Information	
501-CS Model 501	UVB Biometer Digital Detector with Recorder and 50' cable
501-DD Model 501	UVB Biometer Digital Detector only and 50' Cable
501-DA Model 501	UVB Biometer Analog Detector only and 50' Cable
RAF >1 (Radiation Amplification Factor Calculated for 30 Solar Zenith Angle and 0m27cm Ozone Column).	

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