



Ultra-Violet Radiation (UV10 Series)

Features

- Global ultra violet measurement
- Full U.V spectrum Silicon cell
- Frequency or voltage output
- Cosine corrected
- High stability
- Fast response

Applications

- Solar studies
- Meteorological studies
- Agricultural studies

Description

The UV10 Series Ultra Violet Radiation Sensor uses a silicon-gallium-arsenide-phosphorous photovoltaic cell, mounted with an integral filter. This provides a standardised reading equivalent to the radiation falling on a non-reflective surface. The spectral response of the sensor covers the full range of the ultra violet spectrum from 290 to 400 nanometres. The sensing element itself is protected by a glass lens. Envirodata's Ultra-Violet Sensors can be used to provide a direct measurement of solar energy when used in conjunction with a pulse counting integrator or a microprocessor event counting input. Voltage versions are suitable for connection to standard data loggers.

Specifications

Sensing element:	Silicon Gallium Arsenide Phosphorous voltaic cell
Measurement Units:	Joule/m ² (energy) Watts/m ² (intensity)
Spectrum response:	<-6dB from 290 to 400 nanometres peaking at 380
Linearity:	Max. deviation of 1% up to 100 watts/m ²
Cosine correction:	Cosine corrected to 5% up to 60° angle of incidence
Azimuth error:	<1% over 360° at 45° elevation
Stability:	<2% change during 1 year.

Configurations

Model	UV10
Output(Joules/pulse)	2
Resolution (Joules/m ²)	2
Cable Type:	3 core shielded
Cable Length:	1.5m



Specifications [cont]:

Temperature stability:	max. 0.15% per °C
Calibration method:	Calibrated against Envirodata's standard sensor.
Reliability:	Typically five (5) years operation possible before overhaul.
Housing:	White-Powder-coated aluminium
Operating Conditions:	Temperature: -10°C to +50°C Humidity: 0% to 100%
Sensor Mounting:	Unobstructed sky at elevations >5°. All weather conditions.
Supply Voltage:	5.5 to 7 Volts DC
Current Drain:	<0.1 mA.
Output:	+5 Volt Pulse

Ordering Information

UV models:	UV10
Shipping Weight:	0.75kg

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