

Designed for field measurements in solar, meteorological, forestry, agricultural & hydrological studies

SILICON PYRANOMETER 5600-0600



Features

- ▶ Used extensively in solar energy studies for site evaluations and monitoring, passive system analysis, irrigation scheduling and other environmental studies.
- ▶ Patterned after the work of Kerr, Thurtell and Tanner,
- ▶ Features a silicon photovoltaic detector mounted in a fully cosine-corrected miniature head
- ▶ Can be mounted in any plane without affecting performance
- ▶ In clear unobstructed daylight conditions compares favorably with first class thermopile type pyranometers, but is priced at a fraction of the cost
- ▶ Spectral response does not cover full range of solar spectrum (error induced - $< \pm 5\%$ - under most conditions of natural daylight)
- ▶ Includes a millivolt adapter to provide voltage output
- ▶ Includes anodized aluminum base with stainless steel leveling screws and a weatherproof spirit level

Ordering

Part #	Description
5600-0600-1	Pyranometer, Silicon, with leveling bracket

Accessories

6661-1098-1	Mounting Kit, Pyranometer
8111-1073-1	Amplifier with voltage & frequency outputs



Specifications

<i>Specifications subject to change without notice</i>	
Range	400 to 1100 nm
Accuracy	Calibrated against an Eppley Precision Spectral Pyranometer (PSP) under natural daylight conditions. Absolute error under these conditions is $\pm 5\%$ maximum, typically $\pm 3\%$.
Sensitivity	Typically $10 \mu\text{V}$ per 1000 W/m^2
Linearity	Maximum deviation of 1% up to 3000 W/m^2
Stability	$< \pm 2\%$ change over one-year period
Response Time	$10 \mu\text{s}$
Temperature Dependence	$\pm 0.15\%$ per $^{\circ}\text{C}$ maximum
Cosine Correction	Cosine corrected up to 80° angle of incidence
Azimuth	$< \pm 1\%$ error over 360° at 45° elevation
Tilt	No error induced from orientation
Operating Temperature	-40°C to $+65^{\circ}\text{C}$ (-40°F to $+149^{\circ}\text{F}$)
Relative Humidity	0% to 100% RH
Detector	High stability silicon photovoltaic detector (blue enhanced)
Sensor Housing	Weatherproof anodized aluminum case with acrylic diffuser & stainless steel hardware
Size	$7.6 \text{ cm Dia} \times 3.6 \text{ cm H}$ ($3 \text{ in.} \times 1.4 \text{ in.}$)
Weight	123 g (4.4 oz)
Cable Length	3m (10ft) standard



SUTRON CORPORATION

22400 Davis Drive
GS-25F604D SBSA

Sterling, VA 20164
NESDIS Certified

(703) 406-2800
ISO Certified

(703) 406-2801 Fax
EUMETSAT Certified

www.sutron.com
CE Certified

sales@sutron.com
INSAT Certified

page 1
1/17/2011