Pyranometer

S1114W / S1114Z

- **Error less than +/- 5%**
- **Global solar radiation**
- **Durable photodiode**
- **Designed for agricultural, meteorological, and hydrological use**

This pyranometer has been used extensively in solar energy studies for site evaluation and monitoring, passive system analysis, irrigation scheduling, and other environmental studies.

The pyranometer features a silicon photovoltaic detector, mounted in a fully cosine-corrected miniature head. The pyranometer may be hand-held or mounted at any required angle, provided that reflected radiation is not a significant portion of the total.

For clear, unobstructed daylight conditions, this pyranometer compares favorably with first class thermopile-type pyranometers, but at a lower cost. The spectral response does not cover the full range of the solar spectrum, but the error induced is less than +/- 5% under most conditions of natural daylight.

The pyranometer should not be used under vegetation or artificial lights, because it has been calibrated for the daylight spectrum.

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Technical Specifications

S1114W / S1114Z

Range:	400 - 1100 nm
Sensitivity:	90 µA per 1000 Wm^{-2}
Accuracy:	Under natural daylight conditions, typical error is +/- 5%
Stability:	< +/- 2% change over a 1 year period
Temperature Dependence:	+/- 0.15% per °C maximum
Impedance:	147 ohms
Linearity:	+/- 1% for 0 to 3000 Wm^{-2}
Response Time:	10 µs
Relative Humidity:	0 - 100%
Detector:	High stability silicon photovoltaic detector (blue enhanced)

PHYSICAL

Sensor Housing:	Weatherproof anodized aluminum case Acrylic diffuser Stainless steel hardware
Size:	2.38 cm (diameter) x 2.54 cm (height) (0.94 in x 1 in)
Weight:	28 g (1 oz.)
Cable:	3 m (10 ft) (standard)