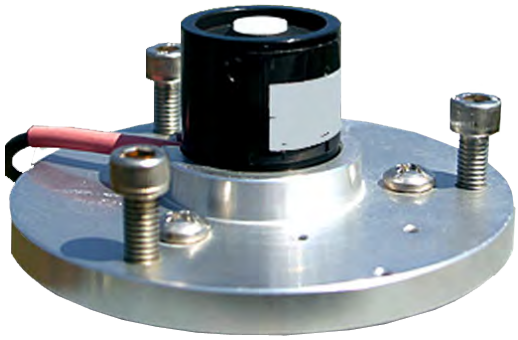
# Silicon Pyranometer

| SPECIFICATIONS | |
|---|---|
| *Subject to change without notice.* | |
| **Operating Temperature** | -40 to +60°C |
| **Range** | 400 to 1100 nm |
| **Accuracy** | Calibrated against an Eppley Precision Spectral Pyranometer (PSP) under natural daylight conditions. Error under most of these conditions is < 5%. |
| **Sensitivity** | Typically 90 µA per 1000 W/m2 |
| **Linearity** | Maximum deviation of 1% up to 3000 W/m2 |
| **Stability** | < ± 2% change over one-year period |
| **Response Time** | 10 µs |
| **Temperature Dependence** | ± 0.15% per °C maximum |
| **Cosine Correction** | Cosine corrected up to 80° angle of incidence |
| **Azimuth** | <±1% error over 360° at 45° elevation |
| **Tilt** | No error induced from orientation |
| **Operating Temperature** | -40°C to +65°C (-40°F to +149°F) |
| **Relative Humidity** | 0% to 100% RH |
| **Detector** | High stability silicon photovoltaic detector (blue enhanced) |
| **Sensor Housing** | Weatherproof anodized aluminum case with acrylic diffuser and stainless steel hardware |
| **Cable Length** | 3m (10ft) standard |
| **DIMENSIONS** | |
| **Height** | 1" (2.54 cm) |
| **Diameter** | .94" (2.38 cm) |
| **Weight** | 1 oz.. (28 g) |
| **ORDERING** | |
| **5600-0600-1** | Pyranometer, Silicon, with leveling bracket |
| **ACCESSORIES** | |
| **6661-1098-1** | Mounting Kit, Pyranometer |
| **8111-1073-1** | Amplifier with voltage and frequency outputs |

## APPLICATIONS

- Crop management
- Sky radiation
- Global radiation
- Irrigation control



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

## 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, and calibrated against Eppley PSP under natural daylight conditions
- 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
- Includes a millivolt adapter (147 ohm precision resistor) to convert milliamp output to millivolts
- Includes anodized aluminum base with stainless steel leveling screws and a weatherproof spirit level
- Should only be used to measure unobstructed daylight (conditions of calibration). Not to be used under vegetation, artificial lights, in green houses, or for reflected solar radiation.