



PHOTOVOLTAIC PYRANOMETER

FEATURES:

- **Photovoltaic Solar Energy Module Monitoring**
- **Agricultural Evapotranspiration Estimation**
- **Air Pollution Dispersion Calculations**
- **Educational Purposes**

The Photovoltaic Pyranometer (P/N 102342) compares favorably to ISO 9060-specified First Class Thermopile Pyranometers under clear and unobstructed natural daylight conditions, and fully complies with CE Directives.

The Photovoltaic Pyranometer suitable for all weather operation. The sensor measures the solar energy received from the entire hemisphere. The Photovoltaic Pyranometer is ideal for measuring available energy: solar energy applications; plant growth; thermal convection; and, evapotranspiration estimation.

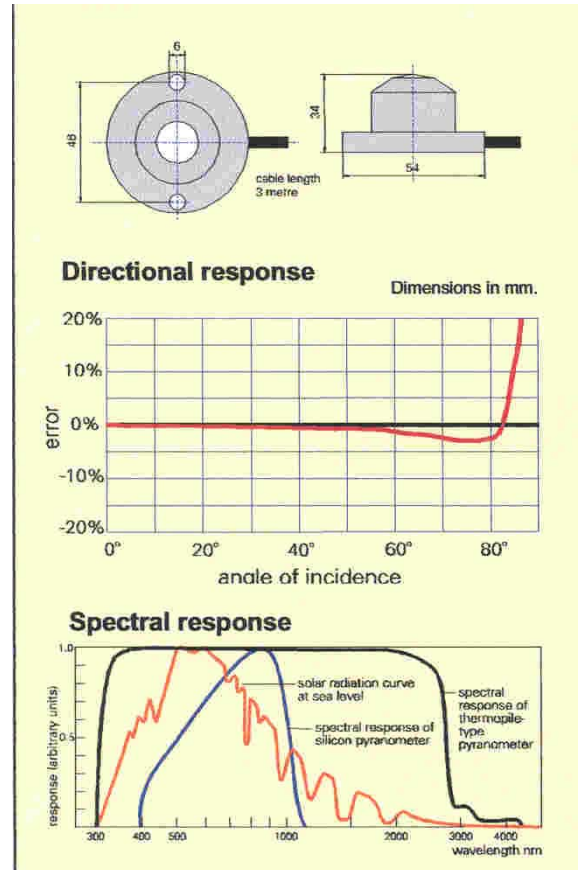
The Photovoltaic Pyranometer employs a Hamamatsu photodiode detector that generates a voltage output signal, proportional to the total amount of incoming solar radiation. Sensor sensitivity is proportional to the cosine of the solar angle of incidence, allowing for accurate and consistent measurement. The sensors good cosine response performance is due to the unique conical shaped self-cleaning diffuser design.

The Photovoltaic Pyranometer is suitable for use with a digital voltmeter, or data logger. Irradiance in W/m^2 units can be derived, by dividing sensor output signal voltage by the factory supplied calibration coefficient.



SPECIFICATIONS

Sensitivity (nominal):	100 $\mu\text{V}/\text{Wm}^{-2}$
Spectral response:	equals silicon
Temperature range:	-30 °C to +70 °C
Response time:	Less than 1 sec
Range:	+2000 Wm^{-2}
Temperature dependence:	0.15 %/°C
Directional error:	<10% (up to 80 degrees)
Spectral range:	0.4 - 1.1 micron



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