

Pyranometer – SP LITE

Professional Silicon Pyranometer

The SP LITE Silicon Pyranometer provides a practical solution for routine measurements of solar radiation. It has been specially designed for use in energy monitoring, agricultural evapotranspiration determinations, air pollution monitoring, general meteorology, and many other purposes.

The SP LITE is an instrument for measuring global solar radiation under all weather conditions. The sensor construction is such that it measures the solar energy that is received from the whole hemisphere. This is the energy flux that is available for use in solar energy applications, for growth of plants, for air to use in thermal convection, and for water evaporation. The SP LITE is ideal for measuring this energy flux.

The sensor is based on a photo detector that gives a voltage output that is proportional to the incoming radiation. Due to the unique design of the diffuser, its sensitivity is proportional to the cosine of the angle of incidence of the incoming radiation, allowing for accurate and consistent measurements under varying sky and placement positions.

The SP LITE is easy to use. It connects directly to a data logger, voltmeter, or recorder to get a voltage output proportional to W/m^2 . Each sensor comes with a calibration certificate.

The pyranometer compares favorably to ISO 9060-specified First Class Thermopile Pyranometers under clear and unobstructed natural daylight conditions, and fully complies with CE Directives.



Technical Specifications

Sensitivity:	100 $\mu V/Wm^{-2}$
Spectral range:	400 – 1100 nm
Temperature range:	-30° to 70° C
Response time:	Less than 1 second
Range:	2000 Wm^{-2} 0.2 VDC full scale
Temp. dependence:	+15%/° C
Cosine error:	±5% up to 80 °

Ordering Information

SP LITE 1	Silicon Pyranometer 5m cable
SP LITE 3	Silicon Pyranometer 15m cable
CLF 1	Leveling fixture with bubble indicator
SP LITE A1	Albedometer 5m cable
SP LITE A3	Albedometer fixture 15m cable
CAF 1	Mounting plate for Albedometer