



SPR200-03 Solar radiation sensor

APPLICATIONS

- Solar energy & photovoltaic power generation.
- Agriculture and forestry monitoring.
- Crop growth monitoring.
- Tourism eco.
- Weather stations.

KEY FEATURES

- Aluminum construction.
- Conform to the WMO standards.
- Suitable for harsh environment.
- Measuring without power.
- High sensitivity.
- Easy installation.
- Compatible with Smartyplanet.



The pyranometer *SP-R200-03* is a high-sensitivity sensor for the measurement of solar radiation.

Its operation is based on a thermoelectric principle.

Detection is done by thermopiles that are integrated in coils with multiple contacts.

The difference in temperature detected between the cold and hot junction generates an electromotive force. In turn, this force causes a thermoelectric effect that is proportional to the solar radiation.

The pyranometer has a simple installation and can be installed in places with adverse conditions.

In order not to change the properties of the product under this type of conditions, the instrument includes a circuit for the compensation of the temperature.

The data collected by the pyranometer are sent and analyzed thanks to its compatibility with the **Smartyplanet web platform**.



Solar radiation sensor

Range	0-2000 W/m ²
Wavelength	300-3200nm
Non-linearity	< ±2 %
Response time	≤35s
Sensitivity	7-14 μV*W ⁻¹ *m ²
Cosine correction	<±7% (elevation angle=10°)
Temperature effect	<±2% /°C(-10°C to 40°C)
Stability	±2%/year
Measuring angle	2π solid angle



Mechanical construction

Material	Aluminum
Power supply	5 VDC, 12-24 VDC
Weight	2,5kg
Dimensions	Diameter: 165mm, Height: 120mm
Internal resistance	350 Ω



Environmental protection

Operating temperature	-40 to +80 °C
IP Rating	IP65



Plug and play Installation

The design of this Station allows his installation under the concept 'to plug and play'. He places of simple form on posts, walls or poles, and his entail with the web of visualization is immediate and automatic.



Without complicated infrastructures

With the different models of station it will be able to create networks of sensors adapted to the needs of his sector, without need of complicated infrastructures not costly.



Better relation Cost - benefit

The new concept of station of sensors allows to have the best technology to monitor and to control his resources to a cost very lower than other existing alternatives on the market.



Visualization in web page

The control of the sensors is realized by means of a web application personalized with multiple functionalities as alarms, historical, multiple users, etc.. Accessible from any device connected to Internet.



Sensors Networks

The number of Stations to linking to his network is unlimited, being able to incorporate different models and configurations to form extensive networks that connect the information of his resources to Internet, to give response to the Smart cities of the future



Multiple sensors

There are multiple the precision sensors that can join. The model of Station selects depending on the type and I number of sensors that he needs.