Product Code . JL-TWL-9203

Solar Radiation Sensor

Description

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The Solar Radiation Sensor, or solar pyrometer, measures global radiation, the sum at the point of measurement of both the direct and diffuse components of solar radiance, the sensor's transducer, which converts incident radiation to electrical current, is a silicon photodiode with the wide spectral response.

It includes a cutoff ring for cosine response, a level indicator, and fins to aid in aligning the sensor with the sun's rays.

The space between the shield and the body also provides a runoff path for water, greatly reducing the possibility of rain- or irrigation-water entrapment.

The transducer is an hermetically-sealed silicon photodiode; the included amplifier converts the transducer current into 0 to +2.5 VDC.

From the sensor's output voltage, the console calculates and displays solar radiance.

It integrates the radiance values and displays total incident energy over a set period of time.

The outer shell shields the sensor body from thermal radiation and provides an airflow path for convection cooling of the body, minimizing heating of the sensor interior.

Spring-loaded mounting screws, in conjunction with the level indicator, enable rapid and accurate leveling of the sensor.

The diffuser is welded to the body for a weather-tight seal; it provides an excellent cosine response.

Specification:-

Storage Temperature: -50° to +158° F (-45° to +70° C)

Transducer: Silicon photodiode

Percent of Full Scale: ±2% (0° to ±90°)

Supplied Cable Length: 3' (0.9 m)

Spectral Response (10% points): 400 to 1100 nanometers Cosine Response

Operating Temperature: -40° to +150° F (-40° to +65° C)

Cable Type: 4-conductor, 26 AWG

Percent of Reading: ±3% (0° to ±70° incident angle), ±10% (±70° to ±85° incident angle)