



**Product Code . EL-TWL-11830**

## Solar Radiation Sensor

### Description

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#### Solar Radiation Sensor

##### Description:-

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.

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

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.

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.

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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)

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

Transducer: Silicon photodiode




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

Supplied Cable Length: 3' (0.9 m)

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

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