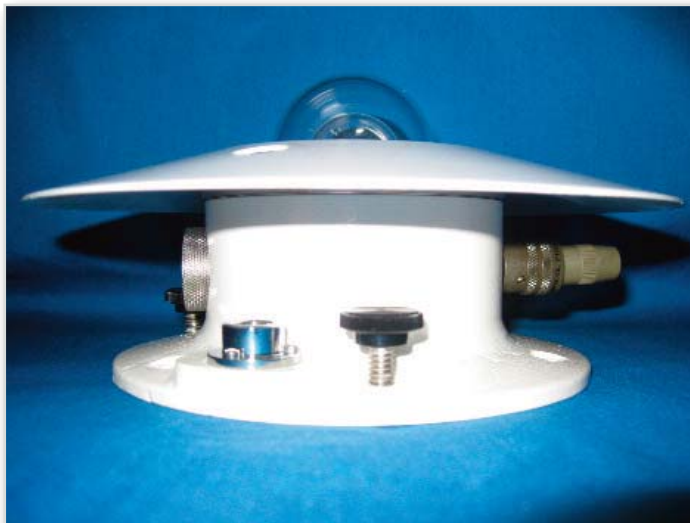




# PRECISION SPECTRAL PYRANOMETER MODEL GEO-PSP



There are two generally accepted Classification Systems used for Pyranometers. ISO classifies pyranometers as a "Secondary Standards", "First Class" or "Second Class" while WMO uses "High Quality", "Good Quality" and "Moderate Quality".

The Precision Spectral Pyranometer, **Model PSP is classified as a ISO Secondary Standard** or WMO High Quality Pyranometer.

It comprises a circular multi-junction wire-wound thermopile which has the ability to withstand severe mechanical vibration and shock. Its receiver is coated with Parson's black lacquer (non-wavelength selective absorption). This instrument is supplied with a pair of removable precision ground and polished hemispheres of Schott optical glass. Both hemispheres are made of clear WG295 glass which is uniformly transparent to energy between 0.285 to 2.8µm.

For special applications, other Schott glasses and Infrasil II quartz hemispheres are available. Included is a spirit level, adjustable leveling screws and a desiccator which can be readily inspected. The instrument has a cast bronze body with a white enameled guard disk (shield) and comes with a transit/storage case. A calibration certificate traceable to the World Radiation Reference and a temperature compensation curve is included.

### SPECIFICATIONS

Classification: ISO Secondary Standard Pyranometer / WMO High Class
Response Time (95%): <1 second
Zero Offset to 200 Wm <sup>-2</sup> net radiant loss to sky: 4-6 Wm <sup>-2</sup>
Zero Offset to 5° C/hr change in ambient temperature: 1-2 Wm <sup>-2</sup>
Resolution: < 1 Wm <sup>-2</sup>
Non-Stability: <0.5% / yr (typical)
Non-Linearity: ±0.5%
Directional Response: < 10 Wm <sup>-2</sup>
Spectral Selectivity: 1%
Temperature Response: ±1%
Tilt Response: < 0.5%
Achievable Uncertainty (Hourly): 1-2 %
Achievable Uncertainty (Daily): 1-2 %
Suitable Application: Working Standard or Network Measurements

