



Instrument Expert Original factory packaging www.dorgean.com



PYRGEOMETERS

SL-500-SS & SL-600-SS Series

Downward-facing





Product Specifications

	SL-510-SS	SL-610-SS
Sensitivity	0.12 mV per W m ⁻² (variable from sensor to sensor, typical value listed)	
Calibration Factor	8.5 W m ⁻² per mV (variable from sensor to sensor, typical values listed)	
Calibration Uncertainty	± 5 %	
Measurement Range	-200 to 200 W m ⁻² (net longwave irradiance)	
Measurement Repeatability	Less than 1 %	
Long-term Drift	Less than 2 % change in sensitivity per year	
Non-linearity	Less than 1 %	
Response Time	Less than 0.5 s	
Field of View	180°	150°
Spectral Range	5 to 30 μm	
Temperature Response	Less than 5 % from -15 to 45 C	
Window Heating Offset	Less than 10 W m ⁻²	
Zero Offset B	Less than 5 W m ⁻²	
Tilt Error	Less than 0.5 %	
Uncertainty with Daily Total	± 5 %	
Temperature Sensor	30 k Ω thermistor ± 1 C tolerance at 25 C	
Output from Thermistor	0 to 2500 mV (typical, other voltages can be used)	
Input Voltages Requirement for Thermistor	2500 mV excitation (typical, other voltages can be used)	
Heater	780 $\Omega,$ 15.4 mA current draw and 185 mW power requirement at 12 v DC	
Dimensions	27.5 mm height, 23.5 mm diameter	
Mass	90 g	100 g
Warranty	4 years against defects in materials and workmanship	





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Dimensions



Features

Output Options

• 0 to 114 mV

• 0 to 2.5 V

Accurate, Stable Measurements

Long-term non-stability determined from multiple replicate pyrgeometers in accelerated aging tests and field conditions is less than 2 % per year.

Unique Design

Designed to optimize performance and price. The patented dome-shaped aluminum head is completely waterproof and minimizes errors by shedding water and dirt. All electronics are fully-potted.

On-board Heater

A 0.2 W heater keeps water off the sensor and minimizes errors caused by dew, frost, rain, or snow blocking the radiation path.

Typical Measurement Applications

- Longwave radiation measurement in agricultural, ecological, and hydrological
- Weather networks and renewable energy applications.



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