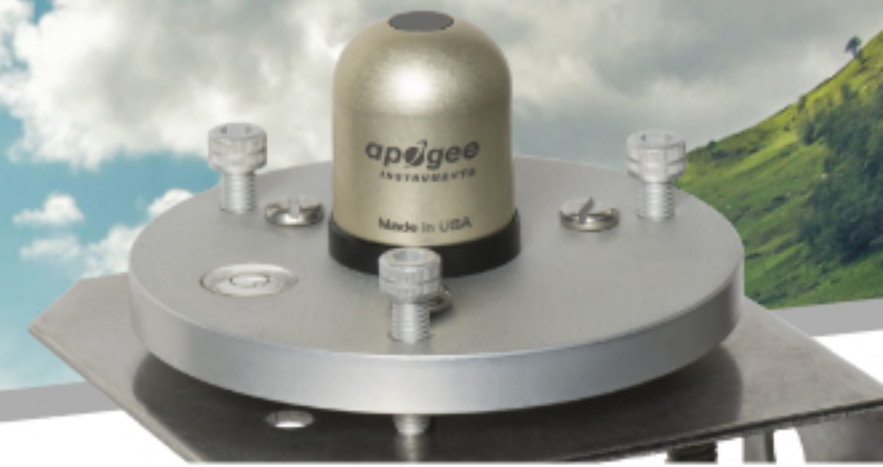


# Pyrgeometers

Incoming and outgoing longwave radiation measurement



## Accurate, Stable Measurements

Long-term drift is less than 2 % per year.

## Rugged, Self-Cleaning Housing

The pyrgeometer features a rugged, anodized aluminum body and fully-potted electronics.

## 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.

## Unique Design

The filter, blackbody thermopile detector, and thermistor (to measure detector temperature) are all contained in a compact housing that provides improved thermal coupling.

## Upward and Downward Option



SL-510



SL-610

	SL-510-SS (Upward-looking)	SL-610-SS (Downward-looking)
Sensitivity	0.12 mV per W m <sup>-2</sup> (variable from sensor to sensor, typical value listed)	
Calibration Factor (reciprocal of sensitivity)	8.5 W m <sup>-2</sup> (variable from sensor to sensor, typical value listed)	
Calibration Uncertainty	± 5 %	
Measurement Range	-200 to 200 W m <sup>-2</sup> (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 <sup>-2</sup>	
Zero Offset B	Less than 5 W m <sup>-2</sup>	
Tilt Error	Less than 0.5 %	
Uncertainty in Daily Total	± 5 %	
Temperature Sensor	30 kΩ thermistor, ± 1 C tolerance at 25 C	
Output from Thermistor	0 to 2500 mV (typical, other voltages can be used)	
Input Voltage Requirement for Thermistor	2500 mV excitation (typical, other voltages can be used)	
Heater	780 Ω, 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	