



## **PYRGEOMETERS**

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

# Downward-facing



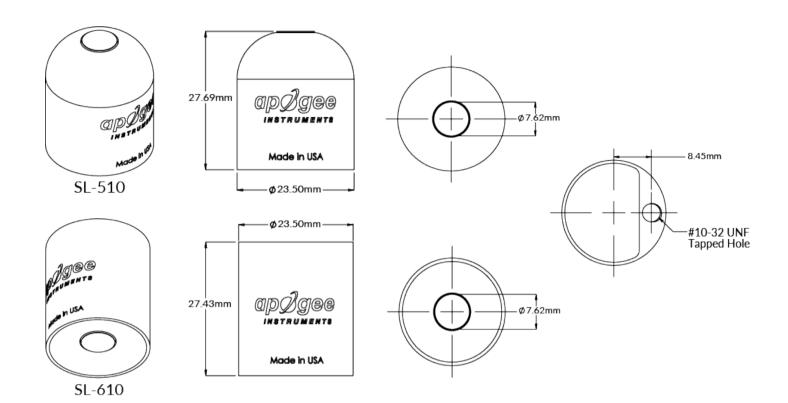


## **Product Specifications**

	SL-510-SS	SL-610-SS
Sensitivity	$0.12\ mV$ per W m $^{-2}$ (variable from sensor to sensor, typical value listed)	
Calibration Factor	$8.5~\mathrm{W}~\mathrm{m}^{-2}$ per mV (variable from sensor to sensor, typical values 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 with Daily Total	± 5 %	
Temperature Sensor	30 k $\Omega$ 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	$780~\Omega,15.4~\text{mA}$ current draw and $185~\text{mW}$ power requirement at $12~\text{v}$ DC	
Dimensions	27.5 mm height, 23.5 mm diameter	
Mass	90 g	100 g
Warranty	4 years against defects in materials and workmanship	



### **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.

