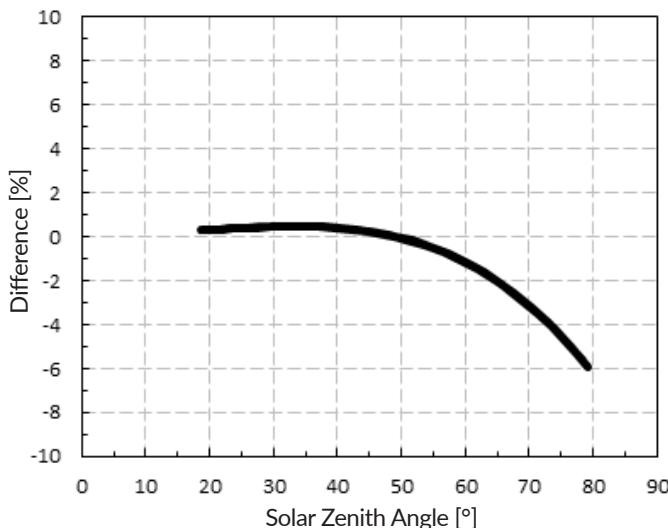
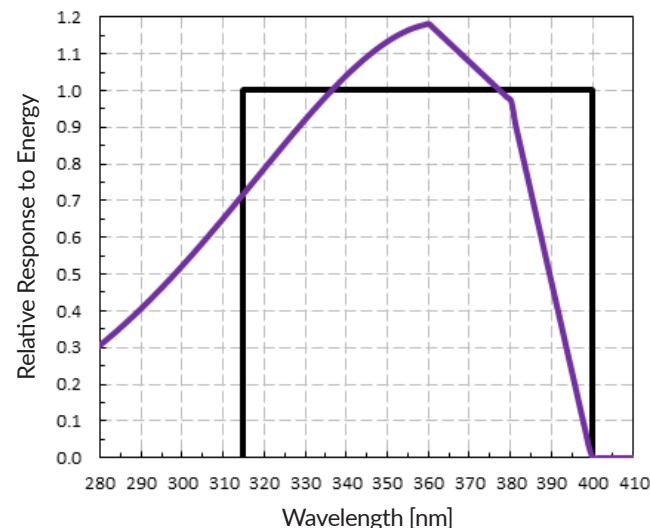




### Response Graphs



Mean cosine response of four Apogee UV-A sensors. Cosine response was calculated as the relative difference of UV-A sensors from the mean of replicate reference UV-A sensors deployed outdoors. These data are the average of the AM and PM response.



Spectral response estimate of Apogee SU-200 UV-A sensors. Spectral response was modeled from sensitivity of the photodetector and transmittance of the diffuser.

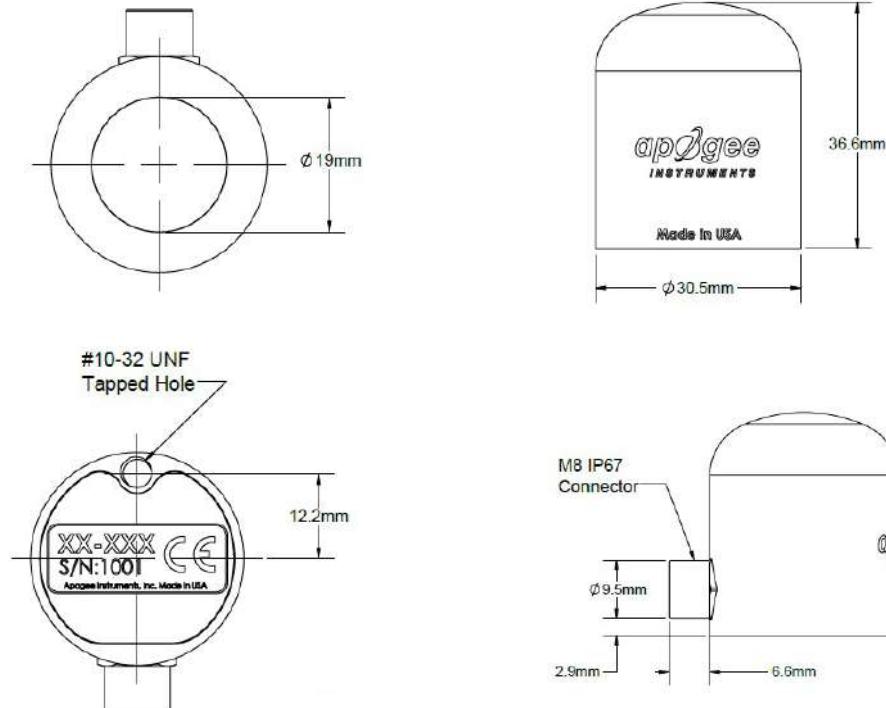
### Product Specifications

	SU-200-SS	SU-202-SS	SU-205-SS	SU-220	SU-221-SS
Power Supply	Self-powered	5 to 24 V DC	5.5 to 24 V DC	5 V USB power source	5.5 to 24 DC
Output (sensitivity)	0.1 mV per $\text{W m}^{-2}$ ; 0.03 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	25 mV per $\text{W m}^{-2}$ ; 8.33 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	50 mV per $\text{W m}^{-2}$ ; 16.67 mV per $\mu\text{mol m}^{-2} \text{s}^{-1}$	Custom for each sensor and stored in the firmware	
Calibration Factor (reciprocal of sensitivity)	10 $\text{W m}^{-2}$ per mV; 30 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV	0.04 $\text{W m}^{-2}$ per mV; 0.12 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per m	0.02 $\text{W m}^{-2}$ per mV; 0.06 $\mu\text{mol m}^{-2} \text{s}^{-1}$ per mV	Custom for each sensor and stored in the firmware	
Calibration Uncertainty			± 5 %		
Output Range	0 to 10 mV	0 to 2.5 V	0 to 5 V	USB	SDI-12
Measurement Range			0 to 100 $\text{W m}^{-2}$		
Measurement Repeatability			Less than 0.5 %		
Long-term Drift			Less than 2 % per year		
Non-linearity			Less than 1 %		
Response Time			Less than 1 ms		Less than 0.6 s
Field of View			180°		
Spectral Range			305 to 390 nm (wavelengths where response is greater than 10 % of maximum)		
Directional (Cosine) Response			± 2 % at 45°; ± 5 % at 75° zenith angle		
Temperature Response			Less than 0.1 % per C		
Operating Environment			-30 to 85 C; 0 to 100 % relative humidity		
Dimensions			30.5 mm diameter, 37 mm height		
Mass (with 5 m of cable)			140 g		
Cable			5 m of shielded, twisted-pair wire; TPR jacket (high water resistance, high UV stability, flexibility in cold conditions); pigtail lead wires; stainless steel (316), M8 connector		
Warranty			4 years against defects in materials and workmanship		

## Overview

UV-A radiation is important in material sciences and has numerous photo-biological functions that are both harmful and beneficial. Apogee's new UV-A radiometers offer a low-cost option for continuously measuring UV-A radiation in outdoor environments, laboratory settings, and monitoring the filtering ability and stability of various materials.

## Dimensions



## Features

### RUGGED, SELF-CLEANING HOUSING

Sensor features an anodized aluminum body with fully-potted electronics. The dome-shaped sensor head minimizes errors by shedding dust and water for a self-cleaning performance.

### HIGH QUALITY CABLE

Pigtail-lead sensors feature on IP68, marine-grade stainless-steel cable connectors attached directly to the sensor head to simplify sensor removal for maintenance and recalibration.

### CALIBRATION TRACEABILITY

Apogee UV-A series sensors are calibrated through side-by-side comparison to the mean of four transfer standard UV sensors under sunlight (clear sky conditions) in Logan, Utah. The transfer standard UV-A sensors are calibrated through side-by-side comparison to an Apogee model PS-300 spectroradiometer under sunlight (clear sky conditions) in Logan, Utah. The PS-300 is calibrated with a quartz halogen lamp traceable to the National Institute of Standards and Technology (NIST).

