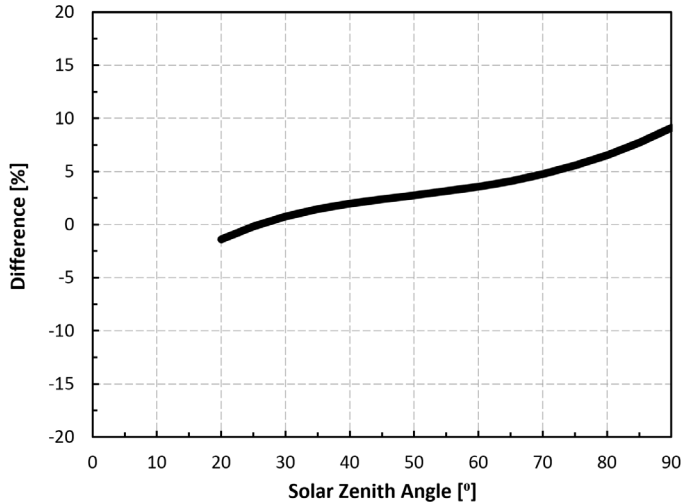
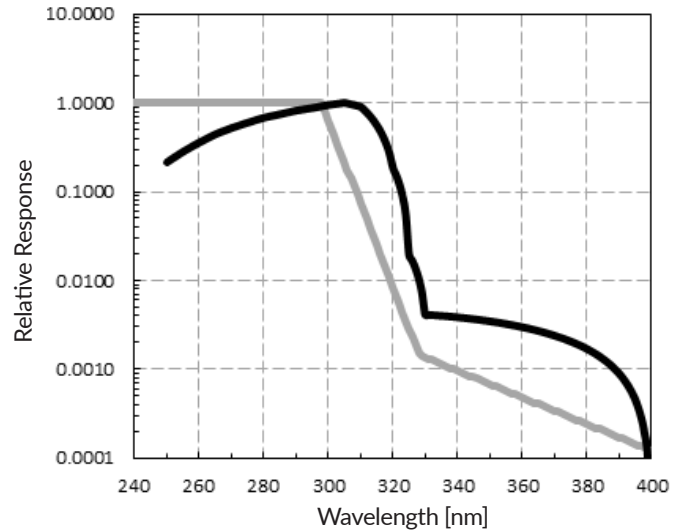




## Response Graphs



Mean directional response estimate of four Apogee UV Index sensors. Cosine response was calculated as the relative difference of UV Index sensors from an estimate of UV Index based on spectral measurements and UVA irradiance measurements. These data are the average of the AM and PM response.



Spectral response estimate of Apogee SU-300 UV Index sensors. Spectral response was modeled from sensitivity of the photodetector and transmittance of the diffuser. Gray line is the Erythemal Action Spectrum and provides a relative indication of skin damage caused by UV radiation.

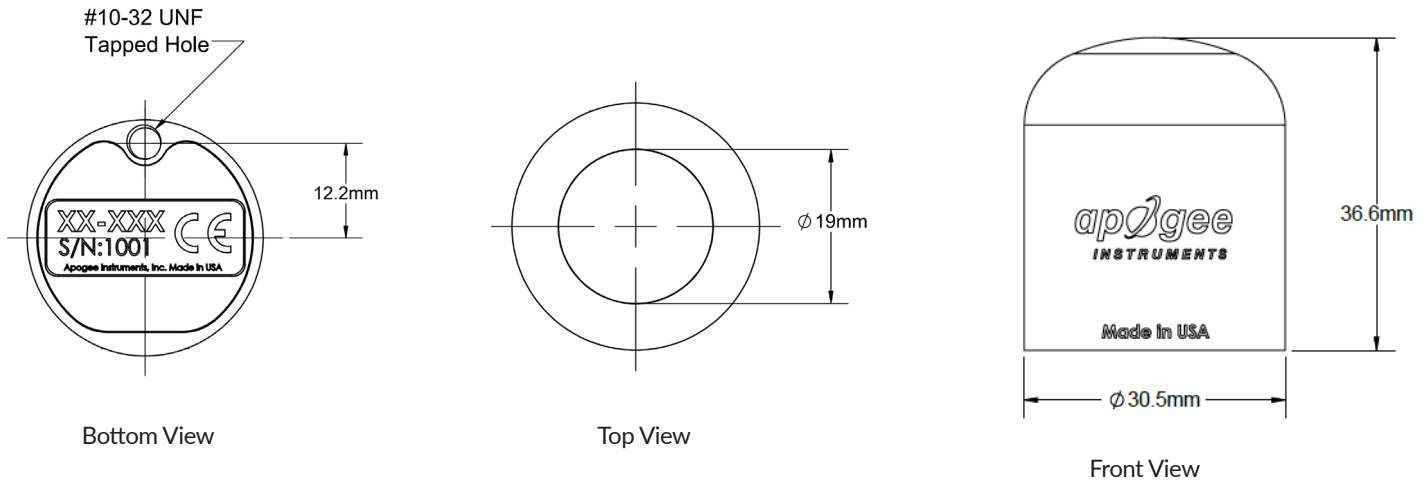
## Product Specifications

	SU-300-SS	SU-321-SS
Power Supply	Self-powered	5.5 to 24 V DC
Output (sensitivity)	0.1 mV per UV index units	—
Calibration Factor (reciprocal of sensitivity)	10 UV index units per mV	Custom for each sensor and stored in the firmware
Calibration Uncertainty	± 10 %	± 10 %
Output Range	0 to 5 mV	SDI-12
Measurement Range	0 to 50 UV index units	0 to 50 UV index units
Measurement Repeatability	Less than 0.5 %	Less than 0.5 %
Long-term Drift	Less than 5 % per year	Less than 5 % per year
Non-linearity	Less than 1 %	Less than 1 %
Response Time	Less than 1 ms	Less than 0.6 ms
Field of View	180°	180°
Spectral Range	270 to 315 nm (wavelengths where response is greater than 50 % of maximum)	270 to 315 nm (wavelengths where response is greater than 50 % of maximum)
Directional (cosine) Response	± 10 % up to 75°	± 10 % up to 75°
Temperature Response	Less than 0.1 % per C	Less than 0.1 % per C
Operating Environment	-40 to 80 C; 0 to 100 % relative humidity	-40 to 80 C; 0 to 100 % relative humidity
Dimensions	30.5 mm diameter, 37 mm height	30.5 mm diameter, 37 mm height
Mass	140 g (with 5 m of lead wire)	140 g (with 5 m of lead wire)
Warranty	4 years against defects in materials and workmanship	4 years against defects in materials and workmanship

## Overview

Apogee Instruments SU-300 series UV Index sensors detect UV radiation from 270 to 315 nm and are calibrated to output UV Index measurements. UV Index is a relative metric that scales linearly with the intensity of UV radiation that causes sunburn in humans. Simple calculations can convert output to UVB and erythemal UV radiation. Typical applications of UV Index sensors include incoming UV radiation measurement in outdoor environments, aimed at informing people of potential for UV exposure and sunburn, or in laboratory use with artificial light sources (e.g., germicidal lamps).

## 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

Shielded cable designed for durability, signal integrity, and long-term performance in harsh environmental conditions.

### CALIBRATION TRACEABILITY

Apogee UV Index series sensors are calibrated through side-by-side comparison to the mean of four transfer standard UV Index sensors under sunlight (clear sky conditions) in Logan, Utah. The transfer standard UV 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).

### TYPICAL APPLICATIONS

- Meteorology Forecasting & climatology
- Public sun exposure guidance & UV alerts
- Outdoor agriculture & horticulture assessments/trials
- Solar and environmental research (UV impacts on materials, ecosystems)

