

# Spectroradiometer

PS-100, PS-200, PS-300



[www.sensovant.com](http://www.sensovant.com)

Tel.: 968 162 005



Evaluate radiation spectra

- Measures radiation spectra in relative, energy (Watts), or quantity units (moles) and reflected and transmitted spectra
- Ruggedized fiber-optic spectroradiometers
- Designed for portability in a rugged aluminum enclosure without moving parts
- Apogee exclusive cosine-corrected detector accurately measures low angle light
- Calibrated measurement ranges from 300 to 1000 nm (NIST traceability) with less than 1.0 nm resolution
- All-in-one package including software interface and is powered via USB cable from laptop or desktop computer



PS-100: Visible to Near Infrared Range



PS-200: UV to Visible Range  
PS-300: UV to Near Infrared Range

# SPECIFICATIONS

## Wavelength Sensitivity:

PS-100: 350 to 1 150 nm

PS-200: 190 to 850 nm

PS-300: 220 to 1 100 nm

## Irradiance Calibration Range:

PS-100: 350 to 1000 nm

PS-200: 300 to 850 nm

PS-300: 300 to 1000 nm

## Wavelength Resolutions:

PS-100: 1.0 nm (full width, half maximum)

PS-200: 0.85 nm (full width, half maximum)

PS-300: 1.5 nm (full width, half maximum)

**Detector Type:** CCD, 2048 pixel (14  $\mu$ m by 200  $\mu$ m pixel size)

**Digitizer:** 16-bit

**Signal to Noise Ratio:** 1000:1

**Stray Light:** PS-100: < 0.1 % at 435 nm; < 0.5% at 600 nm  
PS-200, PS-300: 0.02 % at 435 nm; 0.2 % at 200 nm

**Measurement Repeatability:** < 1 %

**Calibration Uncertainty:**  $\pm$  10 % (for irradiance calibration)

**Integration Time Range:** 1 ms to 65 s

**Field of View:** Cosine -corrected detector: 180°  
Fiber optic cable: 30°

**Directional (Cosine) Response:**  $\pm$  5 % at 80° zenith angle

**Operating Environment:** 0 to 60 C

**Power Requirement:** 5 V DC with a nominal current draw of  
100 mA via USB

**Dimensions:** PS-100: 12.5 cm length, 7.5 cm width, 2.5 cm height  
PS-200, PS-300: 15.0 cm length, 10.0 cm width, 6.9 cm height

**Mass:** PS-100: 500 g  
PS-200, PS-300: 900 g

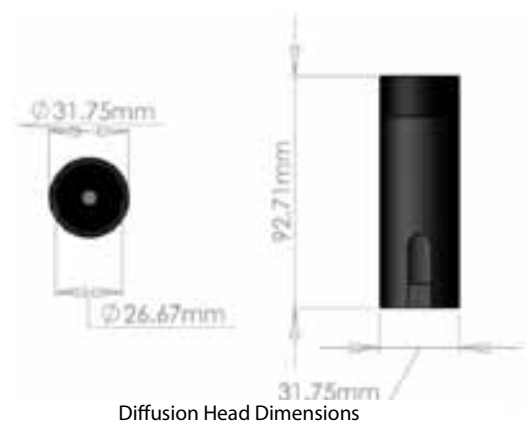
**Cable:** 2 m of armored, 600  $\mu$ m diameter single strand, multi-mode fiber optic cable



AS-003: Reflectance Probe



AS-004: Reflectance Standard



Diffusion Head Dimensions