



## Small Sized, Multiband Radiometer to Monitor PRI.

Rugged, Affordable, Easy and  
Quick to deploy.

### Overview

We designed the SRS for continuous monitoring of Photochemical Reflectance Index (PRI) of plant canopies. The SRS-PRI is low cost, easily and quickly deployable, and capable of reliable operation over years. The SRS-PRI is used by researchers to monitor canopy biomass, leaf area, phenology (green up and senescence), biomass production, and light use efficiency, among other variables.

The SRS-PRI is a matchbox-sized, multiband radiometer that can be mounted on a fence post, tripod, or meteorological tower. It's inexpensive enough to deploy multiple sensors simultaneously. And it's rugged enough to leave in the field for an entire growing season, or longer.

The SRS-PRI is built for long-term exposure to the elements. It is encased in a durable Gelay housing, epoxy-filled, watertight, and weatherproof and has fully sealed optics which help minimize drift in calibration over time.

Each sensor is radiometrically calibrated to a NIST-traceable standard. Readings are output in units of radiant flux density. Calibration information is stored on board the sensor so you never have to worry about keeping track of calibration coefficients.

### Specifications

#### NDVI Wavebands

NDVI Wavebands	$650 \pm 2$ and $810 \pm 2$ nm peak wavelengths, with 10 nm and 10 nm full width half maximum (FWHM) band widths
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#### PRI Wavebands

PRI Wavebands	$532 \pm 2$ and $570 \pm 2$ nm peak wavelengths, with 10 nm full width half maximum (FWHM) band widths
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#### Foreoptics

Foreoptics	(1) Cosine correcting Teflon diffuser, hemispherical field of view
	(2) Field stop, 36° field of view

#### Calibration

Foreoptics	NIST traceable calibration to known spectral irradiance ( $\text{W m}^{-2} \text{ nm}^{-1}$ ) or radiance ( $\text{W m}^{-2} \text{ nm}^{-1} \text{ sr}^{-1}$ )
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### Accuracy

Accuracy	10% or better for spectral irradiance and radiance values
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### Measurement Time

Measurement Time	~ 600 ms
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### Dimensions

Dimensions	43 x 40 x 27mm
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### Weight

Weight	Sensor: 47 g
	Sensor with 5 m cable: 170 g

### Power Requirements

Power Requirements	3.6 to 15 VDC, 4 mA (reading, 300 ms), 30µA (quiescent)
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### Operating Temperature Range

Operating Temperature Range	-40 to 50 °C
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### Cable Length

Cable Length	5 m standard, custom cable length available upon request
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### Connector Types

Connector Type	Stripped and tinned lead wires (pigtail)
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### Communication

Communication	SDI-12 digital sensor
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### Datalogger Compatibility (Not Exclusive)

Datalogger compatibility (not exclusive)	*Campbell Scientific: CR10X, CR850, 1000, 3000, etc.
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For comprehensive details, visit: [www.campbellsci.ca/srs-pri](http://www.campbellsci.ca/srs-pri) 



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