



SOLAR ENERGY SENSORS & COMPONENTS

Pyranometers, pyrheliometers, radiometers, reference cells spectroradiometers & sun trackers



Rugged, Reliable, and Ready for any Application



Campbell Scientific offers pyranometers, pyrheliometers, radiometers, reference cells, spectroradiometers, and sun trackers, all designed to

measure various aspects of the energy imparted by the sun on the Earth's surface.

MAJOR SPECIFICATIONS

	Sensor	Measurement Description	Spectral Range	Sensitivity	Operating Temperature
LI200X Silicon Pyranometer Accurate and dependable 	Silicon photovoltaic detector mounted in a cosine-corrected head	Sun plus sky radiation	400 to 1100 nm	0.2 kW m ⁻² mV ⁻¹	-40° to +65°C
CS300 Silicon Pyranometer Accurate, dependable, and ideal for long-term deployment in harsh conditions 	Silicon photovoltaic detector mounted in a cosine-corrected head	Sun plus sky radiation	300 to 1100 nm	0.2 mV/W/m ²	-40° to +55°C
SP-212 Silicon Pyranometer Accurate and dependable 	Amplified sensor, silicon-cell photodiode	Sun plus sky radiation	360 to 1120 nm	2.0 mV/W/m ²	-40° to +70°C
LP02 ISO-Second-Class Pyranometer High Quality device with protective dome 	Blackened thermopile protected by a dome	Solar radiation for the full solar spectrum range	305 to 2800 nm	15 μV/W/m ²	-40° to +80°C
SR20 ISO-ISO Secondary Standard Pyranometer 	Blackened thermopile protected by a dome	Sun plus sky radiation	285 to 3000 nm	15 x 10 ⁻⁶ V/W/m ²	-40° to +80°C
CMP3 ISO-Second-Class Pyranometer Protective Glass Dome and Solar Shield 	Blackened thermopile protected by a dome	Solar radiation for the full solar spectrum range	310 to 2800 nm	5 to 20 μV/W/m ²	-40° to +80°C
CMP6 ISO-First-Class Pyranometer Double glass dome and increased thermal mass improve performance 	High-quality blackened thermopile protected by two glass domes	Solar radiation for the full solar spectrum range	285 to 2800 nm	5 to 20 μV/W/m ²	-40° to +80°C
CMP11 ISO-Secondary-Standard Pyranometer Double glass dome and high-quality detector 	High-quality blackened thermopile protected by two glass domes	Solar radiation for the full solar spectrum range	285 to 2800 nm	7 to 14 μV/W/m ²	-40° to +80°C
CMP21/CMP22 ISO-Secondary-Standard Pyranometer Double glass dome and internal thermistor for optimized measurements 	High-quality blackened thermopile protected by two glass domes	Solar radiation for the full solar spectrum range	285 to 2800 nm	7 to 14 μV/W/m ²	-40° to +80°C

More info: 435.227.9120

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		<i>Sensor</i>	<i>Measurement Description</i>	<i>Spectral Range</i>	<i>Sensitivity</i>	<i>Operating Temperature</i>
PSP Precision Spectral Pyranometer WMO First Class Radiometer		Circular multi-junction wire-wound thermopile	Sun plus sky radiation	0 to 2800 W/m ²	~9 μV/W/m ²	-20° to 40°C
CHP1 Pyrheliometer Used with a sun tracker such as Kipp & Zonen's Solys2 to keep the CHP1 aimed at the sun throughout the day		Pyrheliometer	Direct beam solar irradiance with a field of view limited to 5 degrees	200 to 4000 nm	7 to 14 μV/W/m ²	-40° to +80°C
8-48 Black and White Pyranometer		Differential thermopile with the blackened hot-junction and whitened cold-junction receivers	Commonly used for diffuse irradiance	0 to 1400 W/m ²	~10 μV/W/m ²	-20° to 40°C
DR01 ISO First Class Pyrheliometer		Pyrheliometer with heated window	Direct solar radiation	0 to 2000 W/m ²	10 x 10 ⁻⁶ V/(W/m ²)	-40° to 80°C
MS-56 ISO First Class Pyrheliometer		Fast <1 s response pyrheliometer	Direct solar radiation	0200 to 4000 nm	6 to 10 μV/W/m ²	-40° to 80°C
NIP WMO First Class Pyrheliometer		Pyrheliometer	Direct solar radiation	0 to 1400 W/m ²	8 μV/W/m ²	-40° to 40°C
MS-700 Spectroradiometer Permanent Outdoor Usage		Spectroradiometer for permanent outdoor usage	Spectral flux density over visible wavelengths	350 to 1050 nm	10 nm (spectral resolution FWHM)	-20° to 50°C
WISER System (MS-710/MS-712) Spectroradiometer		Full spectrum spectroradiometer	Spectral flux density over visible wavelengths	350 to 1700 nm	5nm (MS-710), 10nm (MS-712) spectral resolution	-10° to 40°C
RSR2 Rotating Shadowband Radiometer		Silicon-cell photodiode with rotating shadowband	Global, diffuse, and direct irradiance	400 to 1100 nm	0.2 kW m ⁻² mV ⁻¹	-40° to 65°C
SOLYS 2 Sun Tracker		Fully automatic sun tracker	BSRN level performance	NA	< 0.1° passive tracking < 0.02° active tracking (with optional sun sensor)	-20° to +50°C
STR-22G Sun Tracker		Compact fully automatic sun tracker	Can be interfaced for status information	NA	± 0.01° (with sun sensor)	-40° to +50°C
Si-01TC-T-K Reference Cell		General purpose monocrystalline solar cell	Reference Cell	unknown	0 to 1 V 0 to 1000 W/m ²	-20° to +70°C
ESTI Reference Cell		User-supplies cell or chooses between mono or poly reference cell	Reference Cell	varies	varies	varies