

SPECIFICATIONS

	SP-510	SP-610
ISO 9060:2018	Class C (fast response)	N/A
Sensitivity (variable from sensor to sensor, typical values listed) Serial # 2136 (SP-510), 1320 (SP-610) and above	0.045 mV per W m ⁻²	0.035 mV per W m ⁻²
Sensitivity (variable from sensor to sensor, typical values listed) Serial # 0-2135 (SP-510), 0-1319 (SP-610)	0.05 mV per W m ⁻²	0.15 mV per W m ⁻²
Calibration Factor (reciprocal of sensitivity) (variable from sensor to sensor, typical values listed) Serial # 2136 (SP-510), 1320 (SP-610) and above	22 W m ⁻² per mV	28.5 W m ⁻² per mV
Calibration Factor (reciprocal of sensitivity) (variable from sensor to sensor, typical values listed) Serial # 0-2135 (SP-510), 0-1319 (SP-610)	20 W m ⁻² per mV	6.7 W m ⁻² per mV
Calibration Uncertainty at 1000 W m ⁻²	Less than 3 %	
Calibrated Output Range Serial # 2136 (SP-510), 1320 (SP-610) and above	0 to 90 mV	0 to 70 mV
Calibrated Output Range Serial # 0-2135 (SP-510), 0-1319 (SP-610)	0 to 100 mV	0 to 300 mV
Measurement Range	0 to 2000 W m ⁻² (net shortwave radiation)	
Measurement Repeatability	Less than 1 %	
Long-term Drift (Non-stability)	Less than 2 % per year	
Non-linearity	Less than 1 %	
Detector Response Time	0.5 s	
Field of View	180°	150°
Spectral Range (wavelengths where response is 50 % of maximum) Serial # 2136 (SP-510), 1320 (SP-610) and above	385 to 2105 nm	370 to 2240 nm
Spectral Range (wavelengths where response is 50 % of maximum) Serial # 0-2135 (SP-510), 0-1319 (SP-610)	385 to 2105 nm	295 to 2685 nm
Directional (Cosine) Response Serial # 2136 (SP-510), 1320 (SP-610) and above	Less than 30 W m ⁻² up to solar zenith angles of 80°	Less than 20 W m ⁻² for angles between 0 and 60°
Directional (Cosine) Response Serial # 0-2135 (SP-510), 0-1319 (SP-610)	Less than 30 W m ⁻² up to solar zenith angles of 80°	Less than 20 % for angles between 0 and 60°
Temperature Response	Less than 5 % from -15 to 45 C	
Zero Offset A Serial # 2136 (SP-510), 1320 (SP-610) and above	Less than 2 W m ⁻² ; Less than 10 W m ⁻² (heated)	Less than 2 W m ⁻² ; Less than 10 W m ⁻² (heated)
Zero Offset A Serial # 0-2135 (SP-510), 0-1319 (SP-610)	Less than 5 W m ⁻² ; Less than 10 W m ⁻² (heated)	
Zero Offset B	Less than 5 W m ⁻²	
Uncertainty in Daily Total	Less than 5 %	
Operating Environment	-50 to 80 C; 0 to 100 % relative humidity	
Heater	780 Ω, 15.4 mA current draw and 185 mW power requirement at 12 V DC	
Mass	90 g	100 g
Cable	5 m of four conductor, shielded, twisted-pair wire; TPR jacket (high water resistance, high UV stability, flexibility in cold conditions); pigtail lead wires; stainless steel (316), M8 connector located 25 cm from sensor head	
Warranty	4 years against defects in materials and workmanship	