



Kipp & Zonen SMP10 Pyranometer

Product #: 0374905
USD Price: Contact Hach

The SMP10 is a spectrally flat Class A pyranometer and has an internal desiccant that will last for at least 10 years if the housing is not opened. This minimizes maintenance significantly.

From the individually measured temperature response, a specific polynomial correction function is calculated for SMP10. This is loaded into the pyranometer memory and results in a very low change in sensitivity with instrument temperature: Within $\pm 2\%$ over the range from -40°C to $+70^{\circ}\text{C}$, compared to the calibration temperature of $+22^{\circ}\text{C}$.

The interval for dome cleaning can be extended, and the quality of measurements maximized, by fitting SMP10 with the CVF4 ventilation unit.

The SMP10 has Modbus® interface, amplified analogue output, improved response time and temperature corrected measurement data. The wide and low power supply range from 5 to 30 VDC makes integration in meteorological and solar energy stations easy. The SMP10 is protected against over voltage, reversed polarity and short circuiting.

Thanks to the standardized output and connections of every SMP10, exchanging instruments for recalibration is easy.

SmartExplorer Windows™ software for data logging, display of data and Modbus® address setting is provided as standard.

ISO / IEC classification

ISO 9060 spectrally flat Class A, with ISO / IEC 17025 calibration.

Minimized maintenance

No desiccant change for 10 years, best MTBF with 5 years warranty.

Smart interface

Modbus RTU interface, wide temperature correction range and very low power consumption. Both digital and analog outputs available. No need to adjust data logger after recalibration.

Specifications

Analog Outputs:	0 to 1 V (V-model) or 4 to 20 mA (A-model)
Cable Length:	33, 82, 164, 330 ft (10, 25, 50, 100 m)

Classification:	Spectrally Flat Class A (ISO 9060:2018)
Digital Outputs:	Modbus RTU 2-wire RS-485
Directional Response:	# 15 W/m ² (up to 80 ° with 1000 W/m ² beam)
Drying Cartridge and Maintenance Interval:	Internal, lasts for 10 years, replaced with every recalibration
IP Rating:	IP67
Irradiance Saturation:	4000 W/m ² (Max.)
Material Enclosures:	Aluminum, anodised
Maximum Irradiance:	2000 W/m ²
Non-linearity:	# ±1% (0 to 100 W/m ²)
Non-stability:	# ±1% (change/year)
Operating Humidity:	0 to 100 %
Operating Temperature Range:	-40 to +176 °F (-40 to +80 °C)
Response Time:	# 0.7 s (63 %), # 2 s (95 %)
Sensitivity:	N.A.
Spectral Accuracy:	285 to 2800 nm
Temperature Correction:	# 0.3 %: -4 to +122 °F (-20 to +50 °C)
Weight:	1.3 lb (600 g)
Zero offset A:	# 10 W/m ²
Zero offset B:	# 1 4 W/m ²