Kipp & Zonen SHP1 Pyrheliometer

Product #:	**0375900**
USD Price:	Contact Hach

The combination of the CHP 1 sensor technology with smart interface advantages makes the SHP1 the best commercially available pyrheliometer.

The smart interface not only provides versatile outputs, the integrated temperature sensor and digital polynomial functions also provide individual correction for the temperature sensitivity of the detector from -40 °C to +80 °C. The improved response time and the standardised output make it easy to interchange instruments for recalibration. Thanks to the Modbus® protocol, a range of instrument status and configuration information is available, with user-selectable options.

SHP1 pyrheliometers have extremely low power consumption so that internal heating does not affect the detector performance. They operate from a wide range of supply voltages, making them ideal for power-critical applications. The power input is protected against reversed polarity, over voltage and short-circuits.

SHP1 pyrheliometer is available in two versions, one has an analogue output of 0-1 V, the other is 4-20 mA. Both have a 2-wire RS-485 interface with Modbus® (RTU) protocol.

The analogue outputs allow easy connection to virtually any data logger without the need for sensitive mV inputs. Modbus® interfaces directly to RTU's, PLC's, SCADA systems, industrial networks and controllers. A recalibrated instrument keeps the same analogue and digital measurement ranges, saving time by eliminating re-scaling of data collection equipment. The SHP1 is supplied with a comprehensive, traceable, calibration certificate.

SmartExplorer Windows™ software for data logging, display of data and Modbus® address setting is provided as standard and SHP1 has a 5-year warranty.

Extremely low power consumption
They operate from a wide range of supply voltages, making them ideal for power-critical applications, and the power input is protected against reversed polarity. The internal heating does not affect the detector performance.

Smart interface
This not only provides versatile outputs, but the integrated temperature sensor and digital polynomial functions also provide individual correction for the temperature sensitivity of the detector. The standardised output makes it easy to interchange instruments for recalibration.

Easy connection

The analogue outputs allow easy connection to virtually any data logger without the need for sensitive mV inputs. Modbus® interfaces directly to PLC and SCADA systems, industrial networks and controllers. A recalibrated instrument keeps the same analogue and digital measurement ranges, saving time by eliminating re-scaling of data collection equipment.

Specifications

Analog Outputs:	0-1V / 4-20 mA
Digital Outputs:	Modbus RTU, 2-wire RS-485
Field-of-View:	5 ± 0.2 °
Irradiance Saturation:	4000 W/m² (Max.)
Measuring Range:	200 - 4000 nm
Non-linearity:	< 0.2 %
Operating Temperature Range:	-40 - +176 °F (-40 - +80 °C)
Response Time:	< 2s
Standards:	Class B
Temperature Dependence of Sensitivity:	< 0.5 % (-68 - +140 °F)
Zero offset A:	< 1 W/m²