

SR30-L

Secondary Standard Pyranometer with RS-485 Modbus Communications and Integrated Heating and Ventilation



Overview

The SR30, an ISO 9060:2018 spectrally flat Class A (secondary standard) pyranometer manufactured by Hukseflux, features Recirculating Ventilation and Heating (RVH™) technology. As a standalone unit, the SR30 is fully compliant with IEC 61724-1

standards, whereas other pyranometers would require external ventilation/heating units to be compliant. The SR30 is an ideal instrument for solar resource and PV performance monitoring.

Benefits and Features

- › Heated for high data availability, featuring RVH™ technology
- › Compliant with IEC 61724-1:2017 Class A
- › Remote sensor diagnostics

Specifications

Sensor High-quality blackened thermopile protected by two glass domes with integrated heater and ventilation

Measurement Description Monitors solar radiation for the full solar spectrum range

Hemispherical Solar Radiation

Heater RVH™ (Recirculating Ventilation and Heating)

ISO Classification Spectrally flat Class A (secondary standard) ISO 9060:2018

IEC 61724-1:2017 Compliance Class A

Calibration Uncertainty < 1.2% (k = 2)

Heating Included

Ventilation Included

Technology Employed Recirculating Ventilation and Heating (RVH™)

Standard Operating Mode Heated and ventilated

Power Consumption @ 12 Vdc < 2.3 W

Zero Offset A < 2 W/m²

Calibration Traceability To WRR

Calibration Registers Accessible to users

Spectral Range 285 to 3000 x 10⁻⁹ m

Sensitivity	Digital output
Operating Temperature Range	-40 to +80°C (rated)
Temperature Response	< ±0.4% (-30 to +50°C)
Temperature Response Test Report of Individual Instrument	Report included
Directional Response Test of Individual Instrument	Report included
Rated Operating Voltage Range	8 to 30 Vdc

Sensor Tilt Angle

Tilt Measurement Uncertainty	±1° (0 to 90°)
Tilt Sensor Test of Individual Instrument	Report included

Operation in Low-Power Mode

Operating Condition	Heater and ventilator [OFF]
Zero Offset A	5 W/m ² (unventilated)
Power Consumption @ 12 Vdc	< 0.1 W

Digital Output

Output	<ul style="list-style-type: none"> › Modbus RS-485 › Irradiance in W/m² › Instrument body temperature in °C › Tilt angle in ° › Internal humidity in % › Ventilator speed in RPM
Communication Protocol	Modbus over two-wire RS-485
Transmission Mode	RTU

For comprehensive details, visit: www.campbellsci.com/sr30-l 

