



# 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/m<sup>2</sup>

**Calibration Traceability** To WRR

**Calibration Registers** Accessible to users

**Spectral Range** 285 to 3000 x 10<sup>-9</sup> 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	5 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 <sup>2</sup> (unventilated)
Power Consumption @ 12 Vdc	< 0.1 W

### Digital Output

Output	<ul style="list-style-type: none"> <li>› Modbus RS-485</li> <li>› Ventilator speed in RPM</li> <li>› Internal humidity in %</li> <li>› Tilt angle in °</li> <li>› Instrument body temperature in °C</li> <li>› Irradiance in W/m<sup>2</sup></li> </ul>
Communication Protocol	Modbus over two-wire RS-485
Transmission Mode	RTU

For comprehensive details, visit: [www.campbellsci.com/sr30-l](http://www.campbellsci.com/sr30-l) 

