# 1st class pyranometer | Class B

# SR15-A1



Item : 003395



### **Main features**

- First class | B
- WMO Compliant
- Robustness
- Easy maintenance

**SR15-A1** is a first class pyranometer according to the WMO and ISO 9060:1990 guide classification and a class B sensor according to the revised standard published in 2018. Installed horizontally, it provides accurate global radiation measurements to meet the precise requirements of meteorological services.

**SR15-A1** is a pyranometer designed to meet the rigorous requirements of global radiation measurement.

#### Measurement principle

**SR15-A1** is a thermopile pyranometer that uses a series of thermoelectric junctions to provide a signal proportional to the difference in temperature between its black absorbing surface and a reference 'cold' area in the sensor body.

#### Classification

The **SR15-A1** complies with the "first class" specification of ISO 9060:1990 and "class B" of the revised 2018 standard.

#### **Easy to install**

The height of the **SR15-A1** can adjustable thanks to the pole system provided by PULSONIC on its PULSIA stations. Maintenance is also made easier thanks to its waterproof and pluggable connection system.

#### Automatic

The P4-100 central unit regularly takes radiation measurements, centralizes them and communicates them to the remote server in order to make them available to users and to calculate data such as the duration of insolation according to the WMO pyranometric standard.

#### WWW PULSONIC COM

## **Technical specifications**

General	
Measurement	Solar radiation
Measurement range	0 to 2000 W/m <sup>2</sup>
Calibration uncertainty	< 1.8 % (k=2)
Spectral range	285 to 3000 nm
Sensitivity	10 μV/(W/m²)
Sensitivity range	7 to 15 $\mu$ V/(W/m <sup>2</sup> )
Acquisition angle	180°
Expected output voltage	-0.1 to 30 mV
Response time	< 10 s
Zero Offset A	< 5W/m²
Zero Offset B	< ± 4 W/m²
Power consumption	None
Operating temperature	-40 to +80°C
Temperature response	< ±2% (-10 to +40°C)
Maximum radiation	3000 W/m²
Cable length	2 m
Weight	0.35 kg
Connector	M12, IP67

#### Hampe for solar generator box

Length/diameter Tube 1	760 mm / ø25 mm
Length/diameter Tube 2	550 mm / ø20 mm
Adjustable height range	445 mm
Material	Stainless steel

## 95 日



#### PULSONIC

48, rue de Versailles 91400 Orsay France Tel : +33 1 64 46 34 10 | Fax : +33 1 64 46 25 22 Email : info@pulsonic.com | www.pulsonic.com SAS with a capital of 70000€ | RCS : Evry B 329 221 980

#### Maintenance

**Recommended calibration** 

#### Material

Body

Anodised aluminium

Every 2 years

#### **Data generated\***

Solar radiation (j/cm<sup>2</sup>)

Duration of sunshine (minute or hour)

\*Data generated by the P4-100 data logger

#### **Standards**

ISO 9060: 2018 class B ISO 9060: 1990 class 1
130 9060. 1990 Class 1
IEC 61724-1
I

#### Response of the pyranometer to the solar spectrum





#### WWW.PULSONIC.COM

