



## Mod. **RSG1**

1<sup>st</sup> Class (Class B)

Global Solar Radiation Sensor - Pyranometer

## Highlighted specs

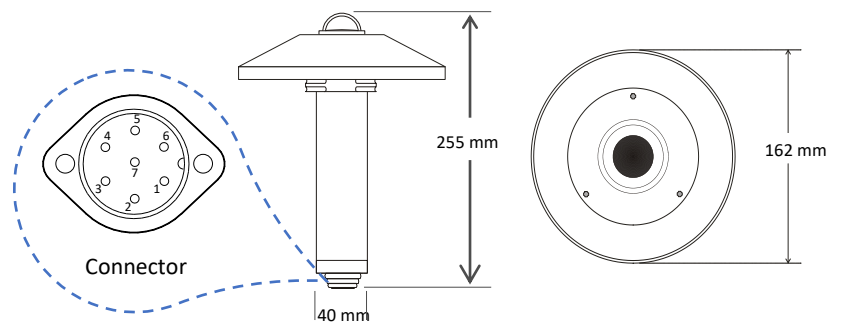
- Class B Thermopile Pyranometer low offset (<14W/m<sup>2</sup>)
- ISO9060 and WMO standards compliant
- Compact and light design in aluminum IP67
- Range 0÷2000 W/m<sup>2</sup>
- Spectral range 0,3μm÷3μm (AirMass AM1.5G Solar Radiation)
- High sensibility ~10μV/(W/m<sup>2</sup>)
- Available in analog output or Modbus
- According to **CE** norms

**Class B Global solar radiation sensor (pyranometer) with thermopile.** Designed to measure the **global component of the sunlight spectrum** between 0.3 μm - 3μm, according to the cosine law. **Compliant with WMO standards** for environmental monitoring, it's also an ideal instrument on **photovoltaic applications according to IEC-9060 and IEC-17025**. It's a high quality instrument that, thanks the different types of standard **signal output (voltage or current)** or **digital RS485 with ModBus**, can be easily interfaced with any acquisition system. Each instrument is supplied with calibration certificate and relative instrumental constant.

Range	Max 2000 W/m <sup>2</sup> natural output; 0 ÷ 2000 W/m <sup>2</sup> normalized output
Spectral range	0,3μm ÷ 3μm
Typical Sensibility	10 μV/(W/m <sup>2</sup> ) on 2 π sr
Typical signal output	10 mV / (kW/m <sup>2</sup> )
Resolution	< 4 W/m <sup>2</sup>
Reponse time	< 20sec
Zero offset	< 14 W/m <sup>2</sup> (at 200 W/m <sup>2</sup> ), < ±3 W/m <sup>2</sup> (ΔT = 5K/h)
Stability (long time – 1 year)	< ±1.5%
Cosine response	<±16 W/m <sup>2</sup>
Temperature response (ΔT 50K)	< 4%
Non linearity	< ±1%
Tilt response between 0 – 90°	< ±2%
Expected daily uncertainty	<5%
Type of transducer	Thermopile
Signal output	10μV/W/m <sup>2</sup> from thermopile, 0÷2Vdc, 4÷20mA o RS485 ModBus
Working conditions	-40 ÷ +80°C
Output resistance	< 40 ohm
Protections	Polarity reverse and transient
Made of	Anodized aluminium and stainless steel
Power supply and consumption	(auto power for N version) 10 ÷ 30Vdc <0,1W other versions
Weight	< 630g

## Size and connections

Pin	RSG1-N	RSG1-A	RSG1-B	RSG1-C
1	-	-	-	-
2	Out +	Out +	Out +	RS485 A
3	Out -	Out -	Out -	RS485 B
4	Gnd	Gnd	Gnd	Gnd
5	/	Vdc(10÷28V)	Vdc(10÷28V)	Vdc(10÷28V)
6	-	-	-	-
7	-	-	-	-



## Order code

Sensor	Class B Global solar radiation sensor (Pyranometer)	RSG1			
Output	0÷2Vdc 4÷20mA RS485 / Modbus Natural		A B C N		
Accessories	CS05 – Cable 5m sensor-datalogger CS10 – Cable 10m sensor-datalogger CSxx – Cable xx* m length, sensor-datalogger – to be specified at order SSU – Sensor support L=700-750mm			05 10 xx	SSU

\*specify the length for no standard measures

example of order code

RSG1 B 10 SSU