



Mod. **RSN**

Net-Radiometer Sensor

Highlighted specs

- Reliable and accurate instrument
- WMO standards compliant
- Compact and light design in aluminium.
- Typical range $\pm 2000 \text{ W/m}^2$
- High sensibility $10 \mu\text{V}$
- Spectral range $0,2 \mu\text{m} \div 110 \mu\text{m}$
- According to **CE** norms

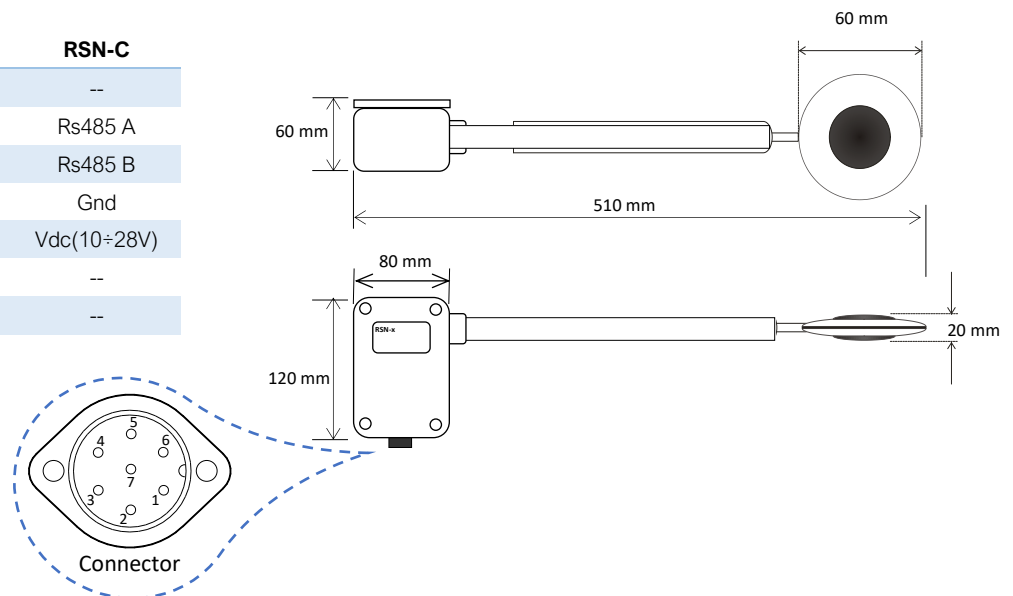
Sensor for the measure of the **Net Solar Radiation** (Net-Radiometer) with **thermopile**. Thanks to the particular construction techniques, is able to measure the **difference between the radiation reflected from the ground and the global radiation by the sun (direct + diffuse)**.

Compliant with WMO norms for use in environmental monitoring, especially for the calculation of evaporation (Penman Monteith algorithm). The sensor is equipped with electrical protection and is available with **different output signal (voltage and current) or digital RS485 with ModBus protocol**, that allows it to be easily interfaced with any acquisition system. Each instrument is supplied with calibration certificate.

Typical measurement range	$\pm 2000 \text{ W/m}^2$; ($-500 \div 1500 \text{ W/m}^2$ for $0 \div 2 \text{ Vdc}$, $4 \div 20 \text{ mA}$ and RS485/Modbus output)
Spectral range	$0,2 \mu\text{m} \div 110 \mu\text{m}$
Typical Sensibility	$10 \mu\text{V}$
Typical signal output	$10 \text{ mV} / (\text{kW} / \text{m}^2)$
Accuracy	$\pm 10 \text{ W/m}^2$
Transducer	Thermopile
Signal output	$10 \mu\text{V/W/m}^2$ from thermopile, $0 \div 2 \text{ Vdc}$, $4 \div 20 \text{ mA}$ or RS485 ModBus
Working conditions	$-40 \div +80^\circ\text{C}$
Protections	Polarity reverse and transient
Output resistance	$< 5 \text{ ohm}$
Power Supply and consumption	(auto power for N version) $10 \div 30 \text{ Vdc}$ $< 0,1 \text{ W}$ other versions
Made of	Teflon, anodized aluminium and stainless steel
Weight	$< 500 \text{ g}$

Size and connections

Pin	RSN-N	RSN-A	RSN-B	RSN-C
1	--	--	--	--
2	Out +	Out +	Out +	Rs485 A
3	Out -	Out -	Out -	Rs485 B
4	Gnd	Gnd	Gnd	Gnd
5	/	Vdc($10 \div 28 \text{ V}$)	Vdc($10 \div 28 \text{ V}$)	Vdc($10 \div 28 \text{ V}$)
6	--	--	--	--
7	--	--	--	--



Order code

Sensor	Net solar radiation sensor	RSN			
Output	$0 \div 2 \text{ Vdc}$		A		
	$4 \div 20 \text{ mA}$		B		
	RS485 / Modbus (MCS option)		C		
	Natural from thermopile		N		
Accessories	CS05 – Cable 5m sensor-datalogger			05	
	CS10 – Cable 10m sensor-datalogger			10	
	CSxx – Cable xx* m length, sensor-datalogger – to be specified at order			xx	
	SSU – Sensor support L=700-750mm				SSU

*specify the length for no standard measures

example of order code

RSN

B

10

SSU