

Spectrally Flat Class A albedometer



Description

The Spectrally Flat Class A albedometer is composed by 2 Class A Pyranometers: the perfect solution for precise and efficient measurement of surface reflectivity and solar radiation!

Fully compliant with ISO 9060:2018 standards, the albedometer provides:

- **Accurate Measurement:** it utilizes advanced sensor technology to provide highly accurate measurements of surface reflectivity, ensuring you obtain reliable data for your research or applications.
- **Dual Functionality:** thermopile sensors facing upwards and downwards, capturing both incident and reflected solar radiation. This means you get a comprehensive view of your solar data, allowing for unparalleled insights..
- **Weather-Resistant Design:** Built to withstand diverse environmental conditions, our Albedometer features a robust and weather-resistant design. From scorching sunlight to challenging climates, it is built to deliver consistent performance.

Totally passive, it doesn't require any power supply. This simplifies your setup: direct outputs from the electric signals of the pyranometers to your data logger or automatic data processor.



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Application example

Technical specifications may be varied without prior notice

Technical specifications

Sensor	Thermopile
Typical sensitivity	6...12 $\mu\text{V}/\text{Wm}^2$
Measuring range	-200...4000 W/m^2
Viewing angle	2 π sr
Spectral range (50%)	283...2800 nm
Output	Passive in mV
Connection	2 5-pole M12 connectors
Weight	1,4 kg ca.
Operating conditions	40...+80 °C 0...100 %UR
Bubble level accuracy	< 0,2°
Protection degree	IP 67
Materials	Housing: anodized aluminium Screen: ASA Dome: optical glass
MTBF	> 10 anni
Classification	Spectrally Flat Class A
Response time(95%)	< 2 s
Zero offset	a) response to a 200 W/m^2 thermal radiation < ± 7 W/m^2 b) response to a 5 K/h change in ambient temperature < ± 2 W/m^2 c) total zero offset including the effects a), b) and other sources < ± 10 W/m^2
Long-term instability (1 year) <	< $\pm 0,5$ %
Non-linearity	< $\pm 0,2$ %
Directional response (up to 80° with 1000 W/m^2 beam)	< ± 10 W/m^2
Spectral error	< $\pm 0,2$ %
Temperature response (-10...+40°C)	< $\pm 0,5$ %
Tilt response	< $\pm 0,2$ %

Ordering codes

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PCTRA127

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