

Vaisala Pyranometers CM6B and CM11



CM6B — FIRST CLASS PYRANOMETER

The CM6B is a first class pyranometer as defined by the World Meteorological Organization. It is suitable for the measurement of solar irradiance on a plane surface (W/m²).

It incorporates a 64-thermocouple sensor, which is rotationally symmetrical, housed under K5 domes. A white screen prevents the body of the pyranometer from heating up. The pyranometer is supplied with a spirit level and screws for accurate levelling. A drying cartridge keeps the interior free from humidity. All the pyranometers are supplied with a calibration certificate.

CM11 — SECONDARY STANDARD PYRANOMETER

The CM11 is a secondary standard pyranometer as defined by the World Meteorological Organization. It is suitable for the measurement of solar irradiance on a plane surface (W/m²).

It incorporates a 100-thermocouple sensor, imprinted on a thick-film substrate, housed under K5 glass domes. The sensor is rotationally symmetrical. A white screen prevents the body of the pyranometer from heating up. The pyranometer is supplied with a spirit level and screws for accurate levelling.

A drying cartridge keeps the interior free from humidity. All the pyranometers are supplied with a calibration certificate which also shows the level of directional error.

TECHNICAL INFORMATION

CM6B

Spectral range	305...2800 nm (50%points)
Sensitivity	9...15 $\mu\text{V}/\text{Wm}^{-2}$
Impedance	70...100 Ohm
Response time	1/e 5 s, 99 % 55 s
Non-linearity	<1.5 % (<1000 W/m ²)
Tilt error	<1.5 % at 1000 W/m ²
Operating temperature	-40...+90 °C
Temperature dependence of sensitivity (-10...+40 °C)	±2 %
Maximum irradiance	2000 W/m ²
Directional error	< ±20 W/m ² at 1000 W/m ²
Weight	0.85 kg
Cable length	10 m

CM11

Spectral range	305...2800 nm (50 % points)
Sensitivity	4...6 $\mu\text{V}/\text{Wm}^{-2}$
Impedance	700...1500 Ohm
Response time	1/e 4 s, 99 % 24 s
Non-linearity	±0.6 % (<1000 W/m ²)
Tilt error	none
Operating temperature	-40...+90 °C
Temperature dependence of sensitivity (-10...+40 °C)	±1 %
Maximum irradiance	4000 W/m ²
Directional error	< ±10 W/m ² at 1000 W/m ²
Weight	0.85 kg
Cable length	10 m



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