

CMP 11



CMP 11 is an ISO Secondary Standard pyranometer. Compared to the CMP 6 it has better directional response. The detector design is different with faster response and has temperature compensation for greater accuracy with temperature changes. The tilt error and levelling accuracy are also improved.

CMP 11 is a step up in performance from CMP 6 and is particularly suitable for upgrading meteorological networks. The fast response time of 1.7 seconds (63 %) meets the requirements for solar energy research and development applications and materials testing.

CMP 11 is ideal for use in sun tracker based solar monitoring stations.

Specifications

ISO CLASSIFICATION	Secondary Standard
Response time (95 %)	< 5 s
Zero offsets	
(a) thermal radiation (200 W/m ²)	< 7 W/m ²
(b) temperature change (5 K/hr)	< 2 W/m ²
Non-stability (change/year)	< 0.5 %
Non-linearity (0 to 1000 W/m ²)	< 0.2 %
Directional error (at 80 ° with 1000 W/m ² beam)	< 10 W/m ²
Temperature dependence of sensitivity	< 1 % (-10 °C to +40 °C)
Tilt error (at 1000 W/m ²)	< 0.2 %

Other specifications

Sensitivity	7 to 14 µV/W/m ²
Impedance	10 to 100 Ω
Level accuracy	0.1 °
Operating temperature	-40 °C to +80 °C
Spectral range (50 % points)	310 to 2800 nm
Typical signal output for atmospheric applications	0 to 15 mV
Maximum irradiance	4000 W/m ²

Article	Part number
CMP 11 Pyranometer • 10 m cable	0362910-002
Options for CMP 11	
CMP 11 Pyranometer • 25 m cable	0362910-004
CMP 11 Pyranometer • 50 m cable	0362910-005
CMP 11 Pyranometer • plug only, no cable	0362910-008
CMP 11 Pyranometer • AMPBOX • 10 m cable	0362910-802
CMP 11 Pyranometer • AMPBOX • 25 m cable	0362910-804
CMP 11 Pyranometer • AMPBOX • 50 m cable	0362910-805
CMP 11 Pyranometer • AMPBOX • plug only, no cable	0362910-808
100 m cable	On request
<i>Note: AMPBOX is adjusted so that 4 - 20 mA output = 0 - 1600 W/m²</i>	

Accessories for CMP 11	Part number
Desiccant Refill Pack , minimum order 10 packs	2643951
CVF 3 Ventilation Unit Recommended to reduce offsets and frequency of dome cleaning	See accessories
CMF 1 Mounting Fixture For 1 or 2 unventilated radiometers (1 upper / 1 lower) Diameter 88 mm. Mounting rod 350 mm long x 16 mm Ø	0362700
CMF 2 Mounting Fixture For 1 or 2 ventilated or unventilated radiometers (1 upper / 1 lower) Diameter 220 mm. Mounting rod 350 mm long x 16 mm Ø	0362701
CMB 1 Mounting Bracket In combination with mounting rod for easy attachment to a pole or a wall	0369701
CM 121B Shadow Ring for unventilated radiometers Manually adjusted device provides diffuse sky irradiance measurement <i>Note: CM 121B can not be used with CVF 3 ventilation unit</i>	0346900
CM 121C Shadow Ring for ventilated radiometers Manually adjusted device provides diffuse sky irradiance measurement Mounts the radiometer at the correct height when used with a CVF 3 <i>Note: AMPBOX is adjusted so that 4 - 20 mA output = 0 - 1600 W/m²</i>	0346901
METEON + CMP 11 Pyranometer • 10 m cable	0362910-702