

# CM 4



CM 4 is a high temperature pyranometer for measuring solar or artificial light irradiance under the most extreme temperature conditions. With an operating temperature range from -40 °C to +150 °C and measurement up to 4000 W/m² it is a unique instrument. All the radiometer components are specially selected for their ability to withstand these extremely high temperature and irradiance levels.

CM 4 has internal first-order temperature compensation, but it is also supplied with a built in Pt-100 temperature sensor to provide additional information on the measurement conditions. Each instrument is supplied with its own temperature response data. CM 4 is supplied as standard with 10 m of special high temperature signal cable.

CM 4 is specifically designed for use in environmental chambers and solar simulators and materials testing.

Article	Part number
CM 4 High Temperature Pyranometer • 10 m cable	0356900-022
Options for CM 4	
CM 4 High Temperature Pyranometer • AMPBOX • 10 m cable	0356900-822
Note: AMPBOX is adjusted so that 4 - 20 mA output = 0 - 4000 W/m²	

Specifications	
ISO CLASSIFICATION	Second Class
Response time (95 %)	< 18 s
Zero offsets	
(a) thermal radiation (200 W/m²)	< 15 W/m²
(b) temperature change (5 K/hr)	< 4 W/m²
Non-stability (change/year)	< 1 %
Non-linearity (0 to 2500 W/m²)	< 3 %
Directional error (at 80 ° with 1000 W/m² beam)	< 20 W/m²
Temperature dependence (0 °C to +100 °C)	< 2 %
Temperature dependence (-20 °C to +150 °C)	< 3 %
Tilt error (at 1000 W/m²)	< 3 %
Other specifications	
Sensitivity (nominal)	7 to 14 µV/W/m²
Impedance	500 to 2000 Ω
Operating temperature	-40 °C to +150 °C
Spectral range (50 % points)	310 to 2800 nm
Maximum irradiance	4000 W/m²
Cable length	10 m
Temperature sensor	Pt-100 4 wire

Accessories for CM 4	Part number
Desiccant Refill Pack, minimum order 10 packs	2643951
CLF 4 Levelling Fixture	0356700
High temperature design for CM 4 only	
METEON + CM 4 High Temperature Pyranometer • 10 m cable	0356900-722