



## Kipp & Zonen CM4 Pyranometer

**Product #:**

**0356900**

**USD Price:**

Contact Hach

The CM4 High Temperature Pyranometer is a radiometer specially designed for measuring solar or artificial light irradiance under the most extreme temperature conditions. With an operating temperature range of  $-40^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$  and measurement up to  $4000\text{ W/m}^2$  it is a unique product. All the radiometer components are specially selected for their ability to withstand these extremely high temperatures and irradiance. The CM4 is supplied with a 10 m high temperature signal cable fitted to the instrument. The CM4 High Temperature Pyranometer 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. Monitoring the temperature during operations allows easy data correction afterwards for improved measurement accuracy. CM4 is supplied with a calibration table that gives the instrument sensitivity for a number of measurement temperature ranges and the maximum error in the measured irradiance values within each range. The screw-in drying cartridge is easy to remove and the replacement desiccant is supplied in convenient refill packets.

### ISO / IEC classification

ISO 9060 spectrally flat Class C, with ISO / IEC 17025 calibration.

### Special high temperature pyranometer

Heat resistant design for industrial applications like climate chambers with temperatures up to  $302^{\circ}\text{F}$  ( $150^{\circ}\text{C}$ ).

### Special calibration

A calibration table with sensitivities is given for a number of temperature ranges and the maximum error in the measured irradiance values within each range.

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## Specifications

Analog Outputs:	0 - 40 mV
Cable Length:	33 ft (10 m)
Classification:	Spectrally Flat Class C (ISO 9060: 2018)
Digital Outputs:	N.A.
Directional Response:	# $20\text{ W/m}^2$ (up to $80^{\circ}$ with $1000\text{ W/m}^2$ beam)
Drying Cartridge and Maintenance Interval:	External, replacement after approx. 6 months
IP Rating:	IP67
Irradiance Saturation:	$4000\text{ W/m}^2$ (Max.)
Material Enclosures:	Aluminum, anodised
Non-linearity:	# 1 % (0 - $100\text{ W/m}^2$ )
Non-stability:	# 0.5 % (change/year)

Operating Humidity:	0 - 100 %
Operating Temperature Range:	-40 - 302 °F (-40 - 150 °C)
Response Time:	# 8 s (95 %)
Sensitivity:	N.A.
Spectral Accuracy:	300 - 2800 nm
Temperature Correction:	# 3 %: -4 - +176 °F (-20 - +80 °C)
Weight:	0.6 lb (250 g)
Zero offset A:	# 4 W/m²
Zero offset B:	# 15 W/m²