



Kipp & Zonen CGR3 Pyrgeometer

Product #: 0359920
USD Price: Contact Hach

The CGR3 is a pyrgeometer, designed for meteorological measurements of downward atmospheric long wave radiation. The CGR3 provides a voltage that is proportional to the net radiation in the far infrared (FIR). By calculation, downward atmospheric long wave radiation is derived. For this reason CGR3 embodies a temperature sensor. The CGR3 uses a specially designed silicon window. On the inside a solar-blind filter blocks solar radiation. The CGR3 data represents the radiation exchange within the whole hemisphere. This is because the reference CGR3 is calibrated outdoors with respect to a reference CG4, which has a 180 degrees field of view. The CGR3 has a newly designed sunscreen that covers both body and connector to reduce the instrument temperature and further increase the accuracy. The design of the instruments accounts for the use of existing Kipp & Zonen mounting plates. The base of the instruments contains the mounting holes, a spirit level and levelling feet for exact levelling. For ease of mounting, exchange and recalibration the instruments have a waterproof connector. The standard supplied 10 m. shielded cable has the waterproof sealed counterpart connector. The improved temperature dependency and directional response make these instruments the ideal choice for meteorological and agricultural applications.

Low maintenance

No desiccant change for 10 years, weather and UV proof cable and connector.

Best choice for accurate routine measurements

5 year warranty, easy levelling. Two CGR3's can form a net-pyrgeometer.

Ideal for low power / remote applications

CGR3 requires no power and is ideal for battery powered loggers.

Specifications

Ambient Temperature:	-40 - +176 °F (-40 - +80 °C)
Analog Output:	Yes
Analog Outputs:	-5 - 5 mV
Analogue Output Signal:	-5 - 5 mV
Cable Connection:	8 pin plug
Cable Length:	33, 82, or 164 ft (10, 25 or 50 m)
Definition of Measured Values:	Long-wave atmospheric radiation
Digital Outputs:	N.A.
Dimensions:	Ø 4.3 in (110 mm), H 2.7 in (68.3 mm)
Field-of-View:	150 °
Housing Material:	Anodised aluminum

IP Rating:	IP67
Measuring Range:	4.4 - 50 μm
Non-linearity:	# 1 %
Non-stability:	# 1 %
Operating Humidity:	0 - 100 %
Operating Temperature Range:	-40 - +176 °F (-40 - +80 °C)
Power Consumption:	none
Power input:	none
Response Time:	# 18 s
Sensitivity:	5 - 15 $\mu\text{V}/\text{W}/\text{m}^2$
Temperature Dependence of Sensitivity:	# 5 % (+14 °F - +104 °F)
Temperature Range:	-40 - +176 °F (-40 - +80 °C)
Weight:	0.66 lbs (0.3 kg)
Zero offset A:	< 15 W/m^2
Zero offset B:	< 4 W/m^2