Kipp & Zonen SGR3 Pyrgeometer

Product #: **0376910**

USD Price: Contact Hach

The SGR3 is a pyrgeometer, designed for meteorological measurements of downward atmospheric long wave radiation. The SGR3 uses a specially designed silicon window. On the inside a solar-blind filter blocks solar radiation. The SGR3 data represents the radiation exchange within the whole hemisphere. This is because the reference SGR3 is calibrated outdoors with respect to a reference CGR4, which has a 180 degrees field of view.The SGR3 has Modbus® interface, amplified analogue output, improved response time and temperature corrected measurement data. The long wave net- and downward radiation are directly available over Modbus®. The wide and low power supply range from 5 to 30 VDC makes integration in meteorological and solar energy stations easy. The SGR3 is extremely robust and comes with 5 years warranty. 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 improved temperature dependency and directional response make these instruments the ideal choice for meteorological and agricultural applications. Thanks to standardized output and connections of every SGR3, exchanging instruments for recalibration is easy. SmartExplorer Windows™ software for data logging, display of data and Modbus® address setting is provided as standard.

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.

Universal interface
SGR3 has both a RS485 Modbus interface plus analog 4 -20 mA or 0 - 1 Volt output.

Specifications

Ambient Temperature:	-40 - +176 °F (-40 - +80 °C)
Analog Output:	Yes
Analog Outputs:	4 - 20 mA or 0 - 1 V
Analogue Ouput Signal:	4 - 20 mA or 0 - 1 V
Cable Connection:	8 pin plug
Cable Length:	33, 82, or 164 ft (10, 25 or 50 m)
Definiton of Measured Values:	Long-wave atmospheric radiation
Digital Outputs:	Modbus RTU 2-wire RS-485
Dimensions:	Ø 4.3 in (110 mm), H 2.7 in (68.3 mm)
Field-of-View:	150 °

Housing Material:	Anodised aluminum
Interface:	RS485, Modbus RTU
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:	55 mW / 100 mW
Power Supply:	5 - 30 VDC
Response Time:	# 18 s
Temperature Dependence of Sensitivity:	# 5 % (-40 °F - +158°F)
Temperature Range:	-40 - +176 °F (-40 - +80 °C)
Weight:	0.66 lbs (0.3 kg)
Zero offset A:	< 15 W/m²
Zero offset B:	< 5 W/m²