

# MS-21SH

WISG traceable calibration



## Overview

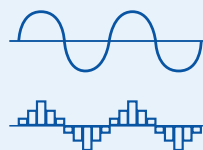
Research-grade, accurate, and robust, the MS-21SH measures longwave downwelling radiation and longwave net radiation from  $4.5\mu\text{m}$  to  $42\mu\text{m}$  and delivers superior stability independent of the sensors' operating temperature.

MS-21SH, with its low power consumption integrated solid-state dome heater to prevent condensation or morning frost, is one of the best value sensors available; ideal for hard to reach locations, and monitoring networks with restricted access.

Now standard to all S-Series sensors, offering visibility over internal temperature, humidity, tilt, and roll angle; helping to ensure optimum performance without the need for regular physical checks.

Calibration is WISG (World Infra-Red Standard Group) traceable and conducted outdoors, adhering to best practice methods for pyrometer calibration. The universal sensor design allows seamless integration with MV-01 and other EKO products and accessories. Use Hibi software for effortless setup and configuration, ensuring optimal performance and flexibility.

## Features



Smart sensor interface



Low temperature dependency, excellent stability



Designed & built for ultra-low window heating



5-year warranty & EKO quality guarantee

## Specifications

Parameters	MS-21SH
Wavelength range	4.5 to 42μm
Response time 95% output	< 18 Sec
Window heating offset	< 4 W/m <sup>2</sup>
Zero offset B	< 1 W/m <sup>2</sup>
Temperature response	< 1 % (-20 to +50°C)
Operating temperature	-40 to +80°C
Field of view	180°
Bubble level accuracy	0.1°
Sensor diagnostics	Relative Humidity ± 2%   Temp. ± ±0.5°C   Tilt Angle ± 1°
Detector temperature sensor	PT100 Class A
Environmental protection (IP Code)	IP67 Equivalent (IEC60529)
Weight	0.7 kg
Output	Modbus RTU, SDI-12
Alert signal	Alert is issued when the internal humidity and current of the dome heating of the pyrgeometer is abnormal.
Supply voltage	8 to 30 VDC
Power consumption	With heating < 1.4W / Without heating < 0.2W

## Application

The MS-21SH Pyrgeometer, a BSRN compatible network pyrgeometer, is essential for energy balance studies and climate change monitoring. It accurately tracks increasing Earth temperatures caused by rising CO<sub>2</sub> and Methane levels. Designed for TIER1 meteorological stations, the MS-21SH ensures precise data collection for critical environmental monitoring and trend detection.

## QR

Use the QR code to visit our website, contact our team, or to find out more about the **MS-21SH** and our full range of industry-leading, high-quality, scientific and meteorological measurements.



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