

# MS-20T, MS-20P

Superior Longwave Radiation Accuracy on a Budget



## Overview

The MS-20 Pyrgeometer is built for research, agricultural and architectural field applications.

More accurate and lower cost than competing 'budget' sensors, the MS-20 is designed to capture downward atmospheric longwave radiation from 4.5µm to 42µm, and can measure the net radiation between the earth and the atmosphere by using two MS-20 upward and downward facing, with a specially coated silicon window to block solar radiation wavelengths below 4.5µm.

Based on EKO's universal sensor design, the MS-20 is robust, weather-proofed and compatible with the MV-01 Ventilator & Heater perfect for for continuous outdoor measurement, whatever the conditions.

Available in two variants; the MS-20T with a high grade Japanese Industrial Standard (JISC1611) thermistor and the MS-20P with a PT-100/3W IEC60751 Class A Industrial platinum resistance thermometer; each unit comes with a 5-year warranty and World Infrared Standard Group (WISG) traceable calibration assuring top-quality performance and reliability for every application.

## Features



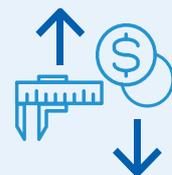
Low temperature dependency, excellent stability



Competition busting low window heating offset



5-year warranty & EKO quality guarantee



Higher accuracy, lower cost Vs. competing sensors

## Specifications

	MS-20T	MS-20P
Response Time 95% Output	< 18 Sec	
Window Heating Offset	< 6 W/m <sup>2</sup>	
Zero Offset B	< 5 W/m <sup>2</sup>	
Temperature Response	< 4 % (-10 to +40°C)	
Operating Temperature	-40 to +80°C	
Wavelength Range	4.5 to 42µm	
Impedance	Approx. 50 to 100Ω	
Sensitivity	10 to 25µV/ W/m <sup>2</sup>	
Field of View	150°	
Detector Temperature Sensor	Thermistor 10kΩ	Pt-100 Class A
Ingress Protection	IP67 Equivalent (IEC60529)	
Output Cable (outer diameter)	AWG20: 0.5mm <sup>2</sup> x 4 pins (Φ6.7mm)	AWG20: 0.5mm <sup>2</sup> x 5 pins (Φ6.7mm)
Output Cable Terminal	Pin-Terminal (0.3 to 9.5)	
Output (or Signal)	Voltage (mV)	
Mass	0.35 kg	

## Applications

The MS-20 measures longwave radiation with a 150° field of view in a wide spectral band, whatever the measurement conditions, and is designed as a low-cost, high-quality solution for research, agricultural and architectural field applications.

## Related Products

**MS-21 Pyrgeometer** Designed to raise the bar, the MS-21 is research-grade, accurate, robust and delivers superior stability independent of the sensors' operating temperature. Based on a new design concept and built for consistency, the MS-21 minimises temperature differences and suppresses window heating errors.

## QR

Use the QR code to visit our website, contact our team, or to find out more about the **MS-20** and our full range of industry-leading, high-quality, scientific and meteorological measurements.



## Accessories



**MV-01** Compatible with all MS & S-Series sensors, the MV-01 is an optional add-on that helps to reduce sensor soiling, keeping sensors free from dew, ice and snow. Proven in challenging environmental conditions, the MS-20 plus MV-01 is a go-to option globally for longwave radiation measurement applications in weather monitoring sensor networks of all sizes. The MV-01 features a low-power fan and highly effective heater, with independent on/off settings for variable operating conditions, a standard tachometer output for fan speed monitoring and a temperature safety switch to protect the ventilator from overheating.

### EKO Instruments Co. Ltd

info@eko.co.jp  
+81-3-3469-6713

### EKO Instruments Sales India

sales-in@eko-instruments.com  
+91 9869047721

### EKO Instruments Europe B.V.

sales-eu@eko-instruments.com  
+31-0-703050117

### EKO Instruments Sales China

sales-cn@eko-instruments.com  
+81-3-3469-6713

### EKO Instruments USA Inc.

sales-usa@eko-instruments.com  
+1-408-977-7751

[eko-instruments.com](http://eko-instruments.com)