

MS-20T, MS-20P

Superior Longwave Radiation Accuracy on a Budget



Overview

The MS-20 Pyrgometer 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 $4.5\mu\text{m}$ to $42\mu\text{m}$, 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 $4.5\mu\text{m}$.

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



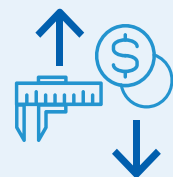
Low temperature dependency, excellent stability



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 ²	
Zero Offset B	< 5 W/m ²	
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 ²	
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 ² x 4 pins (Φ6.7mm)	AWG20: 0.5mm ² 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.

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