MIS503 Pyranometer

MIS503 pyranometer is designed for simple maintenance and has a wide range of accessories available. The long operational life and reliability is proven by an MTBF (Mean Time Between Failures) of more than 10 years.

The best and most reliable pyranometer available

Accurate and independent data for performance ratio calculations

Best MTBF performance

Analogue and digital outputs

The pyranometer has been developed to be suitable for use in all environments, from the Antarctic to deserts. They are installed around the world for meteorology, hydrology, climate research, solar energy, environmental and materials testing, greenhouse control, building automation and many other applications.

specifications

Classification to ISO 9060:2018	Spectrally Flat Class C (Second Class)
Sensitivity	5 to 20 µV/W/m²
Impedance	20 to 200 Ω
Expected output range (0 to 1500 W/m²)	0 to 30 mV
Maximum operational irradiance	2000 W/m²
Response time (63 %)	< 6 s
Response time (95 %)	< 18 s
Detector type	Thermopile
Operating and storage temperature range	-40 °C to +80 °C
Humidity range	0 to 100 %
MTBF (Mean Time Between Failures)	> 10 years
Ingress Protection (IP) rating	67
Onsite pyranometer uncertainty	Calculate with Suncertainty App
Recommended applications	Economical solution for routine measurements in weather stations, field testing

Instrument accuracy

Spectral range (20 % points)	285 to 3000 nm
Spectral range (50 % points)	300 to 2800 nm
Zero osets (unventilated) **(a) thermal radiation (at 200 W/m)** **(b) temperature change (5 K/h)**	 < 15 W/m² < 5 W/m²
Non-stability (change/year)	< 1 %
Non-linearity (100 to 1000 W/m²)	< 1.5 %
Directional response (up to 80° with 1000 W/m² beam)	< 20 W/m²
Spectral selectivity (350 to 1500 nm)	< 3 %
Tilt response (0° to 90° at 1000 W/m²)	< 1 %
Temperature response	< 5 % (-10 °C to +40 °C)
Field of view	180°
Accuracy of bubble level	< 0.2°