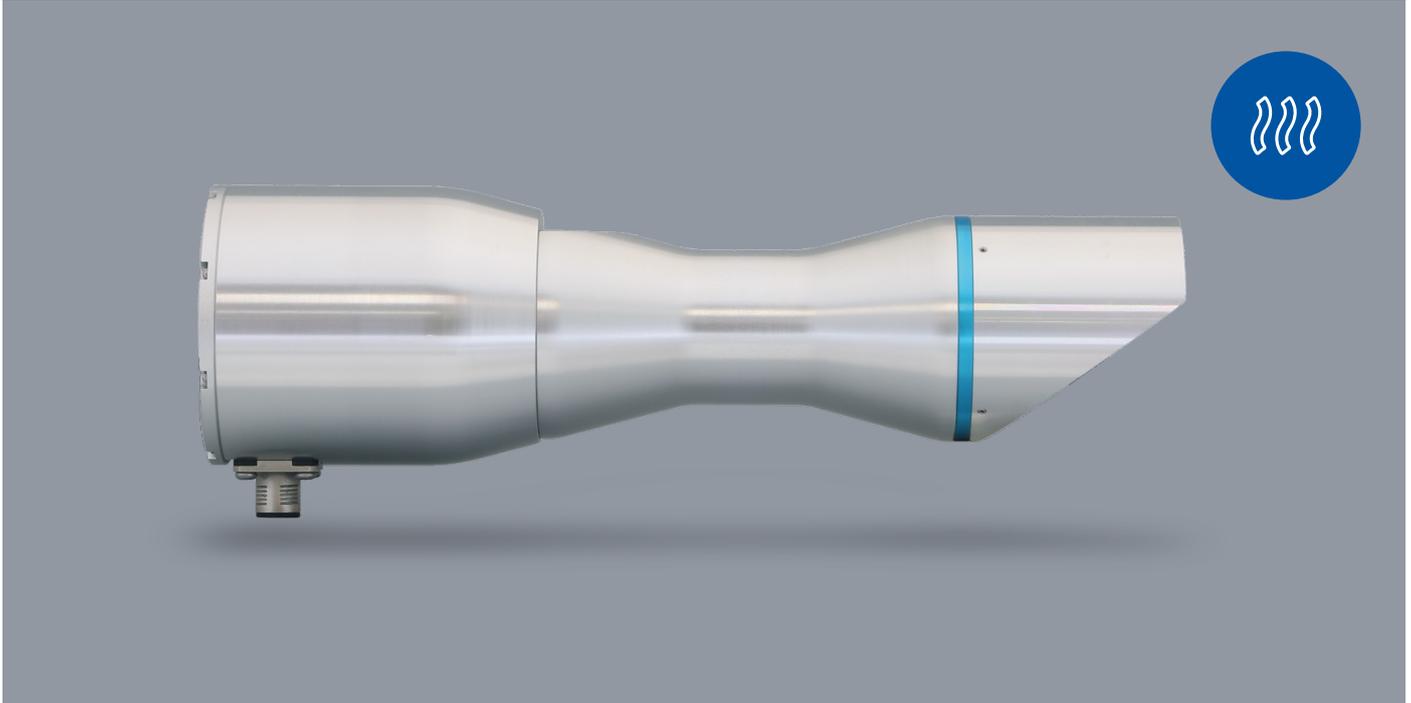


MS-57SH Digital Pyrheliometer

Integrated Window Heating, Class A, Spectrally Flat & Fast Response



Overview

Ultra-fast and incredibly accurate, with competition-beating long-term stability and exceptional reliability; the ISO 9060:2018 Class A MS-57SH Pyrheliometer is a unique, second-to-none, direct normal incidence (DNI) solar irradiance sensor fully traceable to the World Radiometric Reference.

Part of EKO's elite SH-Series range of solar monitoring solutions, the MS-57SH features digital Modbus 485 RTU and SDI-12 interfaces with internal diagnostic sensors for remote visibility over internal temperature, humidity, tilt angle; ensuring optimum performance with reduced maintenance costs.

Designed for solar energy research, monitoring, and meteorological applications and built to weather extreme conditions, the MS-57SH features an operating temperature range from -40 to $+80^{\circ}\text{C}$ and comes with an integrated low power heater to prevent dew and frost deposition on the outside window. Made in Japan, our design and commitment to quality ensure that the MS-57SH is the best choice for every application.

Features



<0.3 Ultra-fast response for always accurate measurements



Integrated anti-frost & dew window heater



Unique <0.5% non-stability change of 5-years



Internal Diagnostics for temperature, tilt and humidity

Explore EKO Instruments



Sun Trackers



Pyranometers



Pyrogeometers



Solar Monitoring Station

ISO Specifications

ISO 9060:2018 Parameters	Class A	MS-57SH
Response time 95%	< 10 sec	< 0.3 sec
Zero offset B - Temperature change (5K/hr)	+/- 1 W/m ²	+/- 1 W/m ²
Non-stability (change/year)	+/- 0.5 %	+/- 0.5 % (5 years)
Non-linearity (100 to 1000W/m ²)	+/- 0.2 %	+/- 0.2 %
Spectral error	+/- 0.2 %	+/- 0.2 %
Spectral selectivity	+/- 3 %	+/- 1 %
Temperature response (-10 to +40°C)	+/- 0.5 %	+/- 0.5 % (-30 to +60°)
Temperature response (-40 to +70°C)	-	+/- 1 %
Tilt response	+/- 0.2 %	+/- 0.2 %
Additional signal processing error	+/- 1 W/m ²	< 1 W/m ²

Technical Features

Operating temperature range	-40 to +80°C
Wavelength range (50% points)	200 to 4000 nm
Field of view	5 degrees
Irradiance range	0 to 4000 W/m ²
Ingress protection	IP67
Supply voltage range	8 to 30 VDC
Power consumption	<1.4W
Signal output	Modbus 485 RTU / SDI-12
Sensor diagnostic	Relative humidity ± 2% Temp. ± 0.1% Tilt angle ± 1°

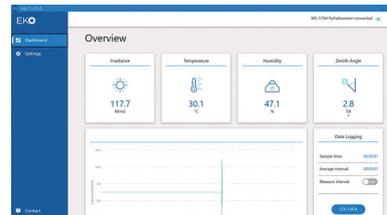
Application



The MS-57SH Pyrheliometer is designed for solar assessment, research, concentrated photovoltaic applications and solar monitoring. Mounted on a sun tracker, the MS-57SH, with its ultra-fast <0.3 response, unique characteristics, S-Series internal diagnostics and superior design, ensure best in class accuracy, speed, and reliability whatever your application.

Software

With 'Hibi', a custom pyranometer management programme developed by EKO, users can connect their sensors to a standard laptop, access the window heating controls for the MS-57SH, internal diagnostics, custom settings, and irradiance data. Hibi makes the MS-57SH one of the most accessible Class A sensors available. Easy to use, deploy, and maintain.



Download HIBI

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