

MS-700 Spectroradiometer

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The compact all-weather MS-700 spectroradiometer is unique in many ways. It is a reference instrument for outdoor spectral irradiance measurements in many high-end research applications. The MS-700 covers a spectral range from 350nm to 1050nm and benefits from an advanced spectrometer which gives a stable output over time. The detector unit is temperature controlled at a fixed temperature to maximize the performance in a wide operating temperature range. It can be fully controlled by the data-logger through the serial command interface without the need for a separate PC.

The MS-700 DNI with 5 degree angle collimating tube benefits from the same characteristics as the MS-700. The quartz window is heated and will remain free from dew deposition and ice. Due to its compact size in can be used in combination with the STR-21G and STR-22G Sun Trackers.

Features

- Suitable For Permanent Outdoor Use
- Excellent Long Term Stability Of Detector Array
- Good Cosine Response Due To Integrated Diffusor And Optics
- Low Temperature Dependency
- Fully Controllable By Data Logger
- High Quality Calibration



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Specs

Specifications (Typical)	MS-700	MS-700 DNI
Sensor head		
Wavelength range	350 to 1050 nm	350 to 1050 nm
Wavelength interval	3.3 nm	3.3 nm
Spectral resolution FWHM	10 nm	10 nm
Wavelength accuracy		
Exposure time (Exposure time)	10ms - 5sec	10ms - 5sec
Temp. dependency (-20°C to 50°C)	< ± 1 %	< ± 1 %
Temperature control	25 +/- 5°C	25 +/- 5°C
Cosine response (0...80°)	< 7%	-
Aperture	180°	5°
Slope angle	-	1°
Stray light	0.15%	0.15%
Window material	Optical glass	Quartz glass
Communication	RS-422 (Between head and power supply)	
Cable length	10m (Optional max. 30m)	10m (Optional max. 30m)
Power requirements	12VDC, 50VA (power supply)	
Operating temperature range (°C)	- 10 to +40	- 10 to +40
Dimensions (sensor)	200(φ)×175(H) mm (With sun screen: 240(φ)×175(H) mm)	200(φ)×300(H) mm
Weight (sensor)	4kg	4.5kg
Power supply		
AC supply voltage	AC100-240V, 50/60 Hz, 50VA	
DC supply voltage	DC 12V	DC 12V
Operating and environmental conditions	0 - 40°C, Relative Humidity: 0 - 90 (%) *No condensation	
Dimensions	200 (W) x 140 (D) x 80 (H) mm	
Weight	1 kg	1 kg