



## MS-80S Smart Albedometer

### Technical Specifications

ISO 9060:2018 Class A (Secondary standard)

"fast response & spectrally flat"

Quartz diffuser technology

ISO 17025 certified calibration

5 year warranty and recommended recalibration

MS-80S Albedometer consists of two MS-80S smart pyranometers and a special albedo kit to measure the albedo with the lowest uncertainty.

This Smart Albedometer has internal temperature, humidity and tilt sensors for remote diagnostics. These additional internal sensors will help the user to monitor the stability of the irradiance sensors as well as to ensure its proper installation and maintenance practices.

The albedometer can be equipped with optional ventilation and heater units MV-01.

MS-80S Albedometer is the ideal instrument for solar power plants with bi-facial PV modules, outdoor material testing and in various meteorological applications.

MS-80S pyranometers have a 5 year warranty, 5 year recommended re-calibration interval and no longer the

requirement for the desiccant to be changed.

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	<b>MS-80S</b>
<b>ISO 9060:2018</b>	Class A
<b>ISO 9060:1990</b>	(Secondary Standard)
<b>Sub-category "Spectrally flat"</b>	Compliant
<b>Sub-category "Fast response"</b>	Compliant
<b>Output</b>	(MODBUS 485 RTU, SDI-12, 4-20mA, configurable 0-10mA / 0-1V with external optional 100Ω precision shunt resistor)
<b>Response time 95%</b>	< 0.5 Sec.
<b>Zero off-set a) 200W/m<sup>2</sup></b>	+/- 1 W/m <sup>2</sup>
<b>Zero off-set b) 5K/hr</b>	+/- 1 W/m <sup>2</sup>
<b>Complete zero off-set c)</b>	+/- 2 W/m <sup>2</sup>
<b>Non-stability change/1 year</b>	-
<b>Non-stability change/5 years</b>	+/- 0.5 %
<b>Non-linearity at 1000W/m<sup>2</sup></b>	+/- 0.2 %
<b>Directional response at 1000W/m<sup>2</sup></b>	+/- 10 W/m <sup>2</sup>
<b>Spectral error</b>	+/- 0.2 %
<b>Temperature response -10°C to 40°C</b>	+/- 0.5 %
<b>Temperature response -20°C to 50°C</b>	+/- 0.5 %
<b>Tilt response at 1000W/m<sup>2</sup></b>	+/- 0.2 %
<b>Operating temperature range</b>	-40 - 80 °C
<b>Irradiance range</b>	0 - 4000 W/m <sup>2</sup>
<b>Wavelength range</b>	285 - 3000 nm (50% points)
<b>Power supply</b>	5 - 30 VDC
<b>Power consumption</b>	< 0.2 W
<b>Ingress protection IP</b>	67

<b>Cable length</b>	10 m
<b>Additional signal processing errors</b>	< 1 W/m <sup>2</sup>

<b>Options</b>	<b>MS-80S</b>
<b>Cable length</b>	20 / 30 / 50 m
<b>Ventilation unit</b>	MV-01
<b>USB Controller / Software</b>	USB-S kit

Specifications are subject to change without further notice.