

Pyranometer EKO MS-80

ISO 9060 Spectrally flat Class A + IEC 17025 calibrated



Description

- ISO 9060 Spectrally flat Class A + IEC 17025 calibrated
- 5-year warranty and re-calibration period
- Fast response time < 1s @ 95%
- Exceptional long-term stability $\pm 0.5\%$ /5 years
- MS-80 with analog voltage output

The MS-80 Secondary Standard pyranometer was inspired by the combination of latest technologies and state-of-the-art thermopile sensors, enabling a breakthrough in unprecedented low zero-offset behaviour and fast sensor response. The compact sensor with single dome, based on a isolated thermopile detector and Quartz diffuser is immune to offsets and integrates all optional value added functions such as a ventilator, heater and different industrial interfaces. The heater and ventilator are recommended, particularly over areas impacted by dew, frost, snow, and dust.

MS-80 is designed with analog voltage output. The analogue MS-80 pyranometer can be used as a reference sensor to measure the global broad-band solar radiation with a high accuracy. With excellent temperature response and non-linearity characteristics, it provides optimal performance throughout the year.

Specifications

Classification	ISO 9060 Secondary Standard
Output	Voltage (mV)
Sensitivity	$\sim 10 \mu\text{V}/\text{W}/\text{m}^{-2}$
Resolution	-
Wavelength range	285 ... 3000 nm
Max. operational irradiance	4000 W/m ²

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Response time (95%)	< 0.5 s
Response time (99%)	< 1 s
Zero offset (a) thermal radiation (200 W/m ²) (b) temperature change (5k/hr)	1 W/m ² ± 1 W/m ²
Non-linearity	± 0.2 %
Long-term stability	± 0.5 % / 5 years
Direction response	± 10 W/m ²
Temperature response (-20 ... +50°C)	< 1 %
Tilt response @ 1000 W/m ²	± 0.2 %
Impedance	approx. 45 kΩ
Operating temperature	-40 ... +80 °C
Power supply	
Power consumption	
Cable length	10 m
Weight	0.4 kg
Protection class	IP67
Warranty	5 years
Manufacturer	EKO Instruments
Accessory	Thies Universal Amplifier (Order-No. S05000)
	MV-01 ventilator / heater (Order-No. S64060)

Delivery includes IEC 17025 calibration certificate.