MS-40 Pyranometer

Technical Specifications

ISO 9060:2018 Class C (Second class)

Sub-category "Spectrally flat"

Analog output

ISO 17025 certified calibration

Optional ventilator MV-01

The MS-40 is an ISO 9060:2018 Class C pyranometer which is based on the EKO's universal sensor platform. It is the most cost effective irradiance sensor to measure Solar irradiance accross the full Solar spectrum. It can be used for agro meteorological networks and professional small scale PV sites where solar radiation is taken seriously. The MS-40A and MS-40M provide a digital output (4-20mA or Modbus 485 RTU). The MS-40/40A/40M can be used with the optional MV-01 ventilator / heater or can be combined with the optional mounting kit for albedo measurements.

The MS-40 pyranometers are manufactured in a consistent way followed by strict quality inspection and performance evaluation. EKO provides a unique calibration compliant to the international standards defined by ISO/IEC17025/9847.

The sensor has a 5 years warranty with a 2 years re-calibration interval recommended and it is no longer necessary to change the desiccant.

	MS-40
ISO 9060:2018	Class C
ISO 9060:1990	Second Class
Sub-category "Spectrally flat"	Compliant
Sub-category "Fast response"	Not compliant
Output	Analog (mV)
Response time 95%	< 18 Sec.
Zero off-set a) 200W/m²	+/- 12 W/m²
Zero off-set b) 5K/hr	+/- 5 W/m²
Complete zero off-set c)	+/- 17 W/m²
Non-stability change/1 year	+/- 1.5 %
Non-linearity at 1000W/m²	+/- 1 %
Directional response at 1000W/m²	+/- 20 W/m²
Spectral error	+/- 0.16 %
Temperature response -10°C to 40°C	+/- 3 %
Temperature response -20°C to 50°C	+/- 3 %
Tilt response at 1000W/m²	+/- 1 %
Sensitivity	Approx. 10 µV/W/m²
Impedance	100 Ω
Operating temperature range	-40 - 80 °C
Irradiance range	0 - 2000 W/m²
Wavelength range	285 - 3000 nm
Ingress protection IP	67
Cable length	10 m

Options	MS-40
Cable length	20 / 30 / 50 m
Ventilation unit	MV-01
Albedo mounting kit	MS-albedo Kit

Specifications are subject to change without further notice.