

Pyranometer EKO MS-40M

ISO 9060 Spectrally flat Class C + IEC 17025 calibrated



Description

- ISO 9060 Spectrally flat Class C + IEC 17025 calibrated
- 5-year warranty

MS-40M Second Class pyranometer is based on the EKO's universal sensor platform with MODBUS RTU output.

The MS-40 pyranometers have been designed for agro meteorological networks and professional small scale PV sites where solar radiation is taken seriously.

The MS-40M can be used with the optional MV-01 ventilator / heater.

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.

Specifications

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	Pyranometer MS-40	Pyranometer MS-40A	Pyranometer MS-40M
Order No.	S64111	S64113	S64115
Classification	ISO 9060 Second Class	ISO 9060 Second Class	ISO 9060 Second Class
Output	Voltage [mV]	Current [4 ... 20 mA]	Modbus RTU
Sensitivity	7 ... 14 $\mu\text{V}/\text{W}/\text{m}^2$	7 ... 14 $\mu\text{V}/\text{W}/\text{m}^2$	7 ... 14 $\mu\text{V}/\text{W}/\text{m}^2$
Resolution	-	< 0.5 W/m ²	< 0.5 W/m ²
Wavelength range	285 ... 3000 nm		
Max. irradiance	2000 W/m ²		
Response time (95%)	< 18 s		
Zero offset			
(a) thermal radiation (200 W/m ²)	< 12 W/m ²		
(b) temperature change (5K/hr)	± 5 W/m ²		
Non-linearity @ 1000 W/m ²	± 1 %		
Non-stability change/1 year	± 1.5 %		
Direction response @ 1000 W/m ²	± 20 W/m ²		
Temperature response (-10 ... +40°C)	< 3 %		
Temperature response (-20 ... +50°C)	< 4 %		
Tilt response @ 1000 W/m ²	± 1 %		
Impedance @ 25°C	60 ... 100 Ω	-	-
Operating temperature	-40 ... +80 °C		
Power supply	-	12 ... 24 V DC ± 10%	12 ... 24 V DC ± 10%
Power consumption	-	0.08 ... 0.75 W	< 0.3 W
Cable length	10 m		
Weight	0.33 kg	0.36 kg	
Protection class	IP67		
Warranty	5 years		
Manufacturer	EKO Instruments		
Accessory		Module M83572	Module M83570
MV-01 ventilator / heater (Order-No. S64060)			

Delivery includes IEC 17025 calibration certificate.

Sensor connection diagram

Connecting EKO MS-40M to Ammonit Meteo-40 data loggers

MS-40M

Sensor	EKO Wire Color	Meteo-40 RS485 Master	Supply Sensor
Data (+)	blue	B+	
Data (-)	black	A-	
RS485 G	grey		GND
Supply	brown		12 V DC
GND	white		GND

