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The most affordable ISO9060 Solar PV Monitoring Sensor



MeteoSolar SR05

The most affordable pyranometer meeting ISO 9060 requirements for solar power monitoring. They are ideal for general solar radiation measurements in meteorological networks and photovoltaic weather monitoring stations WMS.

Easy to mount and install into SCADA systems, it offers the most affordable high-reliability solar measurement solution.

Lowest priced pyranometer to exceed ISO 9060 "Second Class" requirements. MODBUS RTU & analog outputs.



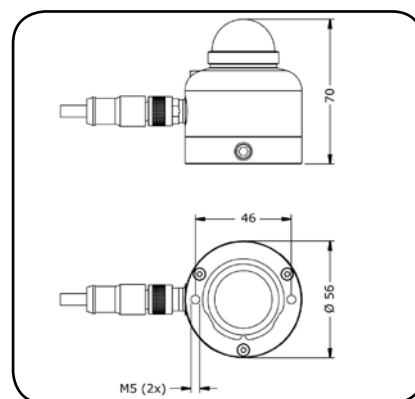
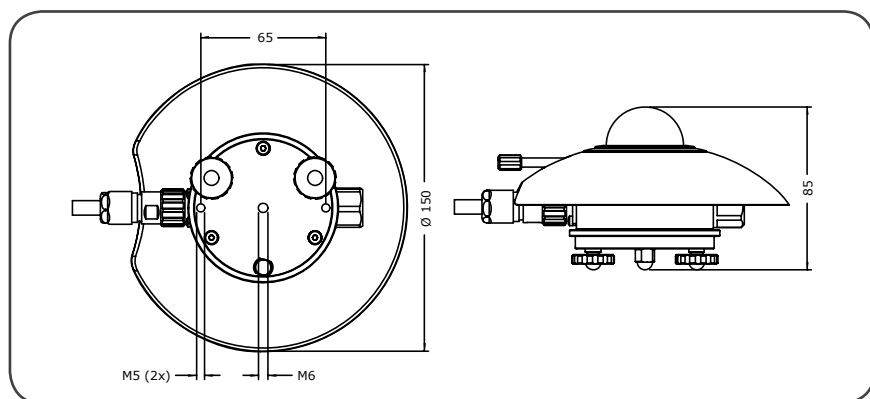
The "Standard" of Solar Measurement Quality

MeteoSolar SR20

Exceeds the highest requirements for pyranometers per ISO 9060, the "Secondary Standard". Designed for the Photovoltaic industry, featuring long-term stability of measurement even in dirty and dusty climates. Each unit is tested for temperature and directional response for immediate and reliable operation for up to 5 years without calibration. It offers the best value for PV operators & meteorological applications.

Digital "Secondary Standard" pyranometer with MODBUS RTU and 4-20 mA output.

Type	Absolute Accuracy	Stability	Zero offset	Measuring spectral range	Operating range	Temperature Response	Response Time	Meets WMO & ISO 9060 standards
SR05 Hemispherical solar radiation sensor	Expanded uncertainty < $\pm 1.8\%$	< 1% per year	< 15 W/m ² unventilated	285 ... 3000 nm Full spectrum UV, Visible & IR	-40°C ... 80°C 0...100%RH	< $\pm 5\%$ -30°C ... +50°C	< 18 s	yes (ISO9060 2nd class)
SR20 Hemispherical solar radiation sensor	Expanded uncertainty < $\pm 1.2\%$	< 0.5% per year	< 5 W/m ² unventilated < 2.5 W/m ² ventilated	285 ... 3000 nm Full spectrum UV, Visible & IR	-40°C ... 80°C 0...100%RH	< $\pm 0.4\%$ -30°C ... +50°C	< 3s	yes (ISO9060 highest Secondary Standard)



For cost conscientious PV producers who realize the long-term value in quality measurement systems for financial decision making.

5 YEARS MAINTENANCE FREE OPERATION

Mechanically strong with up to 5 years of stable maintenance free measurement within ISO 9060 requirements.





Electrical specifications of sensor		
Output signal & communication	RS-485 with Modbus RTU & ASCII, (also available: Frequency, 0-10V, 4-20mA, RS232, RS422)	
Supply Voltage	5...15VDC with reverse polarity protection (startup in-rush <100mA for 1ms)	
Power consumption	800µA at 1Hz output including RS485 communication	
Lightning & surge protection	per IEC EN 61000-4-2, EN 61000-4-4, EN 61000-4-5 on both data & power lines, Surge, EFT/Burst, ESD 15kV	
Environmental rating of sensor		
Operating temperature & humidity	-40°C to +105°C	0% to 100%RH
Connection	Bayonet connector with silicone o-ring	
IP – Protection rating	IP66W (DIN 40050)	
General specifications		
Dimensions	Length = 128mm (164mm with mating connector), Ø17mm base, Ø12mm PTFE sensor cap	
Weight (mass)	approx. 20g (without mating connector and cable)	

Reach your Gold Standard of measurement with BARANI sensors. ISO:9001 quality.

