

# MS-10S UV-A Sensor

## Technical Specifications

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UV stabilized UV-A filter optics

Spectral response 315 - 400 nm

Traceable to NIST Standard lam

Accurate temperature compensation

The UV spectral range is subdivided into two bands: UV-A and UV-B. In contrast to the traditional technology used in UV-radiometers, the MS-10S (315-400 nm) and MS-11S (280-315 nm) have an outstanding stability and measurement repeatability in harsh UV applications. The two UV-radiometer series with Smart technology provide multiple outputs and embedded sensors for remote performance diagnostics. Body-temperature, relative-humidity and tilt-angle can be permanently monitored through the digital interface (Modbus 485 or SDI-12).

Similar to all EKO pyranometers, the UV-radiometer models are based on the compact and light-weight universal EKO sensor platform which offers several benefits. All sensors can be easily combined with the MV-01 ventilation/heater for accurate UV measurement in harsh outdoor environments.

Different Smart radiometer models now can be used within the same sensor network in any application for material testing, medical research or industrial monitoring field

All UV-radiometers are spectrally characterized and calibrated against a NIST traceable standard lamp. This way the UV-radiometers can accurately measure the UV-A and UV-B integrated irradiance independently from the Solar spectral conditions outdoors.

	<b>MS-10S</b>
<b>Irradiance measurement range</b>	0 - 150 W/m <sup>2</sup>
<b>Temperature response -20°C to 50°C</b>	< 1 %
<b>Wavelength range</b>	315 - 400 nm (50% points)
<b>Spectral selectivity</b>	< 20 %
<b>Response time 95%</b>	< 0.5 Sec.
<b>Non-linearity</b>	< 1 %
<b>Operating temperature range</b>	-40 - 80 °C
<b>Directional response</b>	< 5 %
<b>Sensor diagnostics</b>	Relative humidity +/- 2% Temp. +/- 0.3 °C / Tilt angle +/- 1°
<b>Output</b>	(MODBUS 485 RTU, SDI-12, 4-20mA, configurable 0-10mA / 0-1V with external optional 100Ω precision shunt resistor)
<b>Power supply</b>	5 - 36 VDC
<b>Cable length</b>	10 m
<b>Power consumption</b>	< 0.2 W

	<b>MS-11S</b>
<b>Irradiance measurement range</b>	0 - 150 W/m <sup>2</sup>
<b>Temperature response -20°C to 50°C</b>	< 1 %
<b>Wavelength range</b>	280 - 315 nm (50% points)
<b>Spectral selectivity</b>	< 20 %
<b>Response time 95%</b>	< 0.5 Sec.
<b>Non-linearity</b>	< 1 %
<b>Operating temperature range</b>	-40 - 80 °C
<b>Directional response</b>	< 1 %

<b>Sensor diagnostics</b>	Relative humidity +/- 2% Temp. +/- 0.3 °C / Tilt angle +/- 1°
<b>Output</b>	(MODBUS 485 RTU, SDI-12, 4-20mA, configurable 0-10mA / 0-1V with external optional 100Ω precision shunt resistor)
<b>Power supply</b>	5 - 36 VDC
<b>Cable length</b>	10 m
<b>Power consumption</b>	< 0.2 W

Specifications are subject to change without further notice.