



## ML-02 Si-Albedometer

### Technical Specifications

Albedo or reflected irradiance measurements

Most compact industrial sensor

Low temperature dependency

Fast response photodiode

Compact housing and mounting rod

Compact albedometer based on ML-02 Si-pyranometer which complies to ISO 9060-2018 "Fast response class C". It is a compact and cost-efficient solution for measurements of reflected irradiance and albedo. A special housing with a bubble level and 70cm mounting rod makes it easy to use in any application. The ML-02 albedometer is designed for use at PV plants with bifacial modules, hydrology weather stations, agriculture research and other applications where compact and efficient sensor is needed.

ML-02 is designed for light measurements in industrial environments. The compact dimensions of the sensor body make it easy to integrate within any application. Due to its low weight and low profile, the sensor can be easily attached to any light receiving surface. The Mono-Silicon detector with UV resistant diffuser gives a cosine response also at low solar elevation angles. Besides the effects of soiling or water deposition on top of the diffuser will be minimized due to the cone

shape geometry.

The ML-02 detector has a high analog output and can be combined with our industrial interfaces MC-11, MC-20, A-box and M-box to convert the signal to 4-20mA or Modbus 485 RTUS. The sensor has 2 year warranty and calibration compliant to the international standards defined by ISO9847. A two-channel datalogger L-Box can be used to log the data from the albedometer.

	<b>ML-02</b>
ISO 9060:2018	Class C
ISO 9060:2018	Not compliant
Sub-category "Spectrally flat"	Not compliant
Sub-category "Fast response"	Compliant
Output	Analog (mV)
Response time 95%	< 1 ms
Zero off-set a) 200W/m <sup>2</sup>	0 W/m <sup>2</sup>
Zero off-set b) 5K/hr	0 W/m <sup>2</sup>
Complete zero off-set c)	0 W/m <sup>2</sup>
Non-stability change/1 year	+/- 2 %
Non-linearity at 1000W/m <sup>2</sup>	< 0.2 %
Directional response at 1000W/m <sup>2</sup>	< 10 W/m <sup>2</sup>
Spectral error	+/- 3.07 %
Temperature response -10°C + 40°C	< 0.15 %/°C
Tilt response	0 %
Sensitivity	Approx. 50 μV/W/m <sup>2</sup>
Impedance	50 Ω
Operating temperature range	-30 - 70 °C
Irradiance range	0 - 2000 W/m <sup>2</sup>
Cable length	5 m
Wavelength range	400 - 1100 nm (50% points)

Specifications are subject to change without further notice.