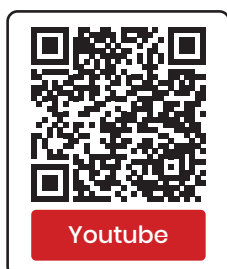


PORTABLE SOILING SENSOR



Patented portable solution for on-site PV soiling measurement

Key highlights

- Portable field device
- Direct soiling ratio reading
- Instant LCD display
- No site-specific dust calibration
- For PV plants, O&M teams, and cleaning companies



Fast cleaning decisions based on real panel data

Technical Specifications

	3S-SMS-P
Soiling Ratio	2% - 20%
Resolution	0.1%
Uncertainty	≤ 2%
Operating Temperature Range	-10°C to +50°C
Operating Humidity Range	0 ... 90% RH
Power Supply	12 V 24 Ah Lithium Battery
Working Time	5 hours
Battery Charging Time	3 hours
Portable Soiling Sensor Dimensions	Ø 280 mm x 180 mm (D x H)
Portable Soiling Sensor Weight	4 kg
Battery Box Dimensions	220 mm x 232 mm x137 mm (W x L x H)
Battery Box Weight	3.6 kg

Portable soiling insight for smarter PV maintenance

What it does?

Measures dust-related soiling on solar panels and shows the result directly on screen.

Why it matters?

- Supports faster cleaning decisions
- Helps reduce guesswork
- Ideal for field inspections
- Useful across multiple site areas

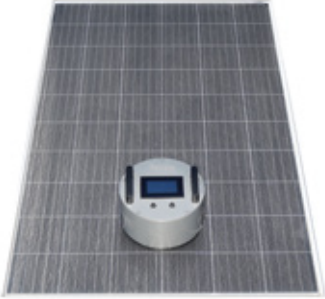
How it works?

The sensor calculates soiling ratio using the reflection and scattering behavior of light on the panel surface. Before measurement, the user enters panel and soil characteristics such as:

- Panel color
- Soil color
- Soil tone

The device then emits stable high-lumen light onto the panel surface, measures reflected light with a high-precision sensor, and processes the data through its integrated electronics and software to display the soiling ratio digitally.

Step 1 1 min.



Portable Soiling Sensor

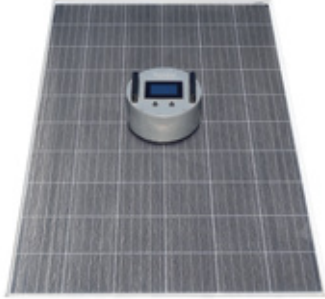
Soiling Ratio: ~-1%

1st Soiled Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 05 : 05

Step 2 1 min.



Portable Soiling Sensor

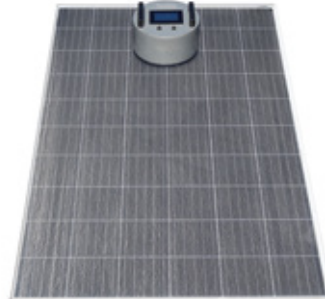
Soiling Ratio: ~-1%

2nd Soiled Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 08 : 04

Step 3 1 min.



Portable Soiling Sensor

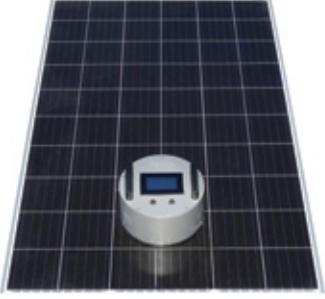
Soiling Ratio: ~-1%

3rd Soiled Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 10 : 05

Step 1 1 min.



Portable Soiling Sensor

Soiling Ratio: ~-1%

1st Clean Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 20 : 02

Step 2 1 min.



Portable Soiling Sensor

Soiling Ratio: ~-1%

2nd Clean Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 22 : 02

Step 3 1 min.



Portable Soiling Sensor

Soiling Ratio: ~-1%

3rd Clean Calculation is Being Performed

Remaining Time For Calculation: 00 : 58

Settings Lights On: 00 : 24 : 02

Measurement Completed ✔

Portable Soiling Sensor

Soiling Ratio: 7.5%

Calculate

Settings Lights On: 00 : 26 : 09

Price

2900€

Qty based discount:	3%	for	2-4	pcs
	5%	for	5-9	pcs
	10%	for	10-24	pcs
	15%	for	>25	pcs