

# BREAKTHROUGH!

setting the standard in  
**PV soiling monitoring**



What if you could measure soiling of PV panels with a solution that does not require any maintenance?! The new DustIQ is a sensor without moving parts, does not need cleaning and uses a breakthrough technology to accurately measure soiling. This fundamental new Optical Soiling Measurement (OSM) technology provides you with insights into the power loss due to soiling. With a network of DustIQs you will know exactly when it is time to clean and where on the plant.



**Know exactly when and  
where to clean**



**Optimize  
yield**



**The only maintenance free  
solution to measure soiling**

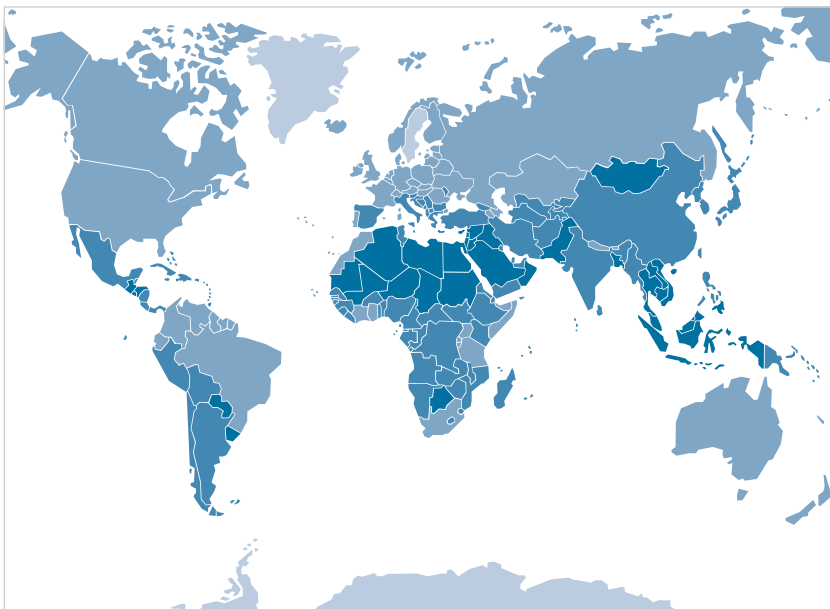


**Integrated in the leading  
monitoring software systems**





# DustIQ PV soiling monitoring



## Benefits of the DustIQ sensor solution

- Patented, unique new technology
- Small panel (990 x 160 mm) with solar industry standard materials
- Flexible mounting to fit everywhere: at the side or in the middle of solar arrays
- Measures soiling ratio from 100% (clean) to 50%
- Can be upgraded with a PV back panel temperature sensor
- Cost effective solution that allows for multiple points of measurement
- Doesn't need sun to operate



## Better than alternatives

- Completely passive: no need for daily cleaning as it follows the plant's cleaning schedules
- 24/7 day and night measurements, 1 minute measurement interval
- Multiple sensors are better than existing spot-measurement solutions
- Integration in solar array provides more reliable measurements than existing solutions
- Easy to mount and install

## Preliminary specifications

Soiling Ratio's	2 sensor values 50 to 100%
Soiling ratio measurement accuracy	
90 to 100 %	± 1 %
80 to 90 %	± 2 %
50 to 80 %	± 5 %
	After post-processing
Stability	Auto calibrating, better than ±1 % of full scale per year
Connections	1 - RS485 Modbus® to host
	2 - daisy chain to next device or PV panel temp sensor
Voltage range	10 to 30 VDC
Current range	70 to 200 mA
Power consumption max.	< 2 Watt
Ambient operating temperature	-20 to +60 °C
Glass type	Standard PV panel glass with all coatings and laminates
Instrument dimensions	990 x 160 x 40 mm
Instrument weight	4 kg
Optional PV panel temperature sensor	-20 to +100 °C, ± 1 °C