



# Smart Sensor SS02



SS02 is a device designed for accurate measurements of solar irradiance. Inside SS02 a microprocessor controls three different optical sensors allowing for real-time measurements of: Global, Direct, Diffuse and Reflected solar irradiance. Along with irradiance values the UV radiation is analyzed and coded into the standard UV index scale. SS02 can easily be applied to a smartphone and be used for many applications such as:

- Meteorology, climatology, solar energy studies and building physics
- Power assessment of PV systems
- Assistance in improving the PV performance through reflected irradiance control
- Help in getting a risk-free tan or planning sun-safe outdoor activities



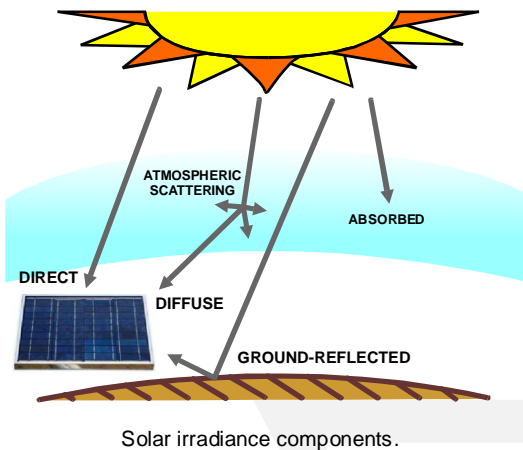
The SS02 device can be interfaced with every smartphone through its standard audio jack connector. As it is powered by an onboard PV cell, it is completely independent from the host phone and doesn't need any additional battery.

With SS02 you can now have a solar test laboratory small enough to fit inside the palm of your hand!

## Ordering codes:

SS02 -

Connector pinout	
C	CTIA
O	OMTP



The SS02 sensor is compatible with the Android app SolarTester. You can download SolarTester from Google Play Store.



## Technical specifications

### IRRADIANCE MEASUREMENTS <sup>(1)</sup>

Operating range: 150...1500 W/m<sup>2</sup>  
Accuracy:  $\pm 5\%$   
Data rate: 4 Hz typ

### UV INDEX MEASUREMENTS

Operating range: 1...11  
Accuracy:  $\pm 0.5$  typ (UVI = 1...9)  
Data rate: 4 Hz typ  
Weighted according to the CIE Erythemal Action Spectrum

### DATA COMMUNICATION

- AudioCom serial interface  
- Conn. Jack 3.5 mm 4P (CTIA or OMTP compatible)

### INTERNAL SENSORS

- Monocrystalline cell (Global Irr)  
- PIN photodiode (Direct Irr)  
- Integrated digital sensor (UV index)

### POWER SUPPLY

Internal PV cell (Irr > 150 W/m<sup>2</sup>)

### OPERATING TEMPERATURE (T<sub>a</sub>)

-10°...55°C working (RH max 85% at 25°C)  
-20°...60°C storage

### DIMENSIONS

30 mm x 30 mm x 10 mm

### WEIGHT

~10 g

(1) Global and Direct solar irradiance