

Litemeter LM2-485 PRO

Litemeter LM2-485 PRO is a digital photovoltaic pyranometer (or solar irradiance sensor) equipped with a monocrystalline silicon cell laminated in performing glass. Output: digital value of irradiance and temperature (RS485 bus interface). Manufacturing and Calibrations are done following the IEC 61215, IEC 60904-2; 60904-4; 60904-10 regulations.

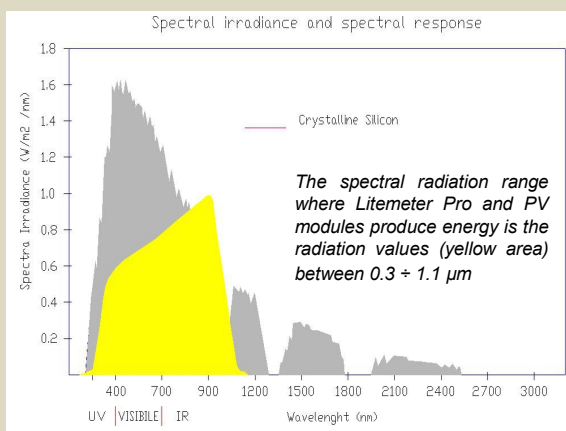
Measurement features

Litemeter LM2-485 PRO has a **photovoltaic cell** which is laminated with **E.V.A. and a performing antireflective glass for photovoltaic modules**. It guarantees a fair precision in the measurement of irradiance and provides a measurement of the indicative temperature of the photovoltaic modules next to it.

This sensor has a RS485 bus interface, using the well known industry standard protocol Modbus RTU.

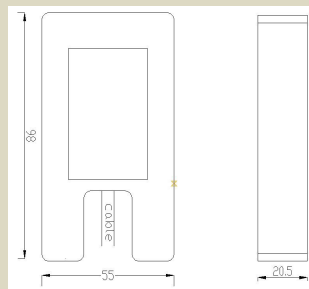
It is calibrated with our Primary Reference cell calibrated periodically by **Fraunhofer Institute** (DE), accredited by **Dakks**.

Spectrum of interest



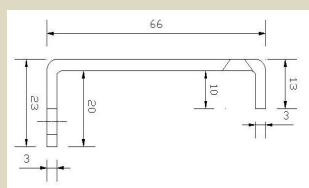
Calibration

Each Litemeter LM2-485 PRO is calibrated for comparison with our Silicon Reference Cell calibrated periodically by Fraunhofer ISE Institute (DE).



Physical features

Silicon sensor glass laminated, anodized aluminum housing, high durability, practical mounting bracket with screw clamp, cable UV-resistant.



Most common uses

Litemeter LM2-485 PRO is used where the monitoring system has RS485 input channels and an high accuracy in the calculation of the performance is not required.

LITEMETER SENSOR		
Product	Litemeter LM2-485 PRO	
Standard Reference	IEC 60904-2; IEC 60904-4; IEC 60904-10	
Output	Digital	
Input Range	Irradiance	$0 \div 1250 \text{ W / m}^2$
	Spectral range	$0,36 \mu\text{m} \div 1,14 \mu\text{m}$
	Temperature	$-30 \div +85 \text{ }^\circ\text{C}$
Output (digital RS485 standard Modbus RTU)	Irradiance	$0 \div 1250 \text{ W / m}^2$ (not compensated in temp.)
	Temperature	$-30 \div +85 \text{ }^\circ\text{C}^{(1)}$
Output precision	Irradiance	$\pm 5\%$ (2.5% @S.T.C. (25°C))
	Temperature	$\pm 1.0 \text{ }^\circ\text{C}$
	Response Time	$< 100\text{ms}$
Sensor Type	Solameter with digital output	
Supply	Ext. Current loop	$12 \div 30 \text{ Vdc}$
Encapsulant	Glass + E.V.A. + Poliester	
Cable	3 m shielded cable $\varnothing 5.7 \text{ mm}$, conductors $4 \times 0,25\text{mm}^2$, UV and high temperature resistant	
Connector	Standard M8 4 pin or not present (4+1 pin)	
Dimensions	55x98x20.5 mm without fixing bracket	
IP grade	IP 65	
(1): Note: the temperature value is predetermined at project stage and verified at the production stage.		

