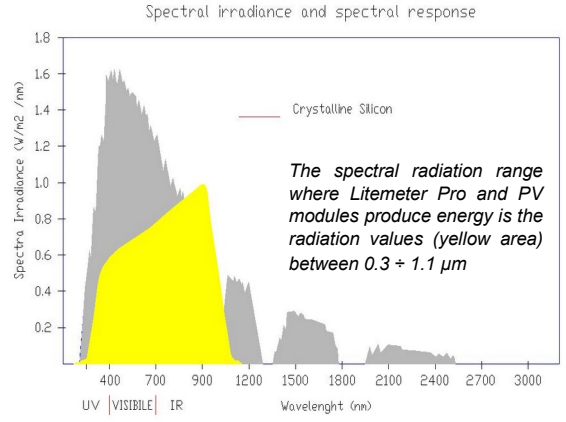
Litemeter LM2-485 PRO

Litemeter LM2-485 PRO is a digital photovoltaic pyranometer (or solar irradiance sensor) equipped with a monocrystalline silicon cell laminated in performance 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

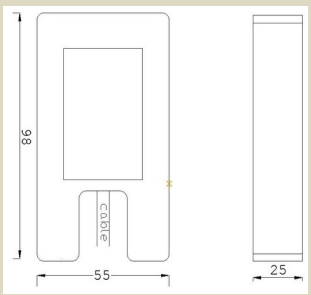
Litemeter **LM2-485 PRO** has a **photovoltaic cell** which is laminated **with E.V.A. and a high performance anti-reflective glass for photovoltaic modules.** It guarantees a fair precision in the measurement of irradiance and provides a measurement of the indicative temperature of the photovoltaic modules next to it.
This sensor has an RS485 bus interface, using the well known industry standard protocol Modbus RTU.
It is calibrated with our Primary Reference cell calibrated periodically by **ISFH Institute** , accredited by **Dakks**.

Spectrum of interest



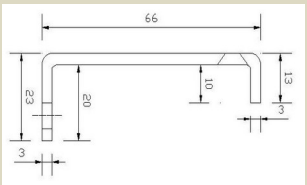
Calibration

Each Litemeter LM2-485 PRO is calibrated for comparison with our Silicon Reference Cell calibrated periodically by ISFH Institute.



Physical features

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



Most common uses

Litemeter LM2-485 PRO is used where the monitoring system has RS485 input channels and a 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 ÷ 1250 W / m²*
	Spectral range	*0,36 µm ÷ 1,14 µm*
	Temperature	*-30 ÷ +85 °C*
Output (digital RS485 standard Modbus RTU)	*Irradiance*	*0 ÷ 1250 W / m² (not compensated in temp.)*
	Temperature	*-30 ÷ +85 °C (1)*
Output precision	*Irradiance*	*±5% (2.5% @S.T.C. (25°C))*
	Temperature	*± 1.0 °C*
	Response Time	*< 100ms*
Sensor Type	*Solarimeter with digital output*	
Supply	*Ext. Current loop*	*12 ÷ 30 Vdc*
Electronics non-linearity	< ± 0,1 %	
Temperature drift. 0 + 85°C	≃ +5 % at 1000 W/m2	
Overall measurement uncertainty	± 2,4 % @ 1000 W/m2	
Uncertainty reference cell	*± 1,2 % (* ISFH , accredited by Dakks*)*	
PV cell	monocrystalline silicon	
Encapsulant	*Glass + E.V.A. + Poliester*	
Cable	*60 cm or 3 m shielded cable Ø 5.7 mm, conductors 4 x 0,25mm², UV and high temperature resistant*	
Connector	*4+1 GND loose pins (or M8 4 pin)*	
Dimensions	*98x55x25 mm without fixing bracket*	
Weight	304 g	
IP code	*IP 65*	

(1): Note: the temperature value is predetermined at project stage and verified at the production stage.

Company with ISO 9001 quality management system certification