

LiteMeter LM1-10V PRO

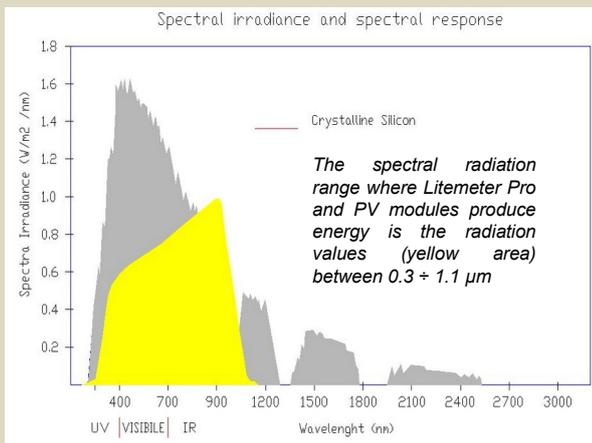
LiteMeter **LM1-10V PRO** is an analog photovoltaic pyranometer (or solar irradiance sensor) with a monocrystalline silicon cell laminated in performance glass. It is equipped with two signal outputs, one for irradiance and one for temperature. Manufacturing and Calibrations are done following the **IEC 61215, IEC 60904-2; 60904-4; 60904-10 regulations.**

Measurement features

LiteMeter **LM1-10V PRO** has a **photovoltaic cell** which is laminated with **E.V.A. and a high performance anti-reflective glass for photovoltaic modules.**

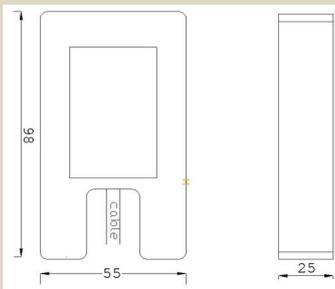
It guarantees the maximum precision in the measurement of irradiance and provides a measurement of the indicative temperature of the photovoltaic modules next to it. The sensor has two signal outputs in voltage: 0 ÷ 10 V, one for solar irradiance and one for temperature. This LiteMeter also has another feature: the solar irradiance signal is temperature compensated; so the solar irradiance values are independent of cell temperature. All LiteMeters are calibrated with our Primary Reference cell calibrated periodically by **ISFH Institute**, accredited by **Dakks**.

Spectrum of interest



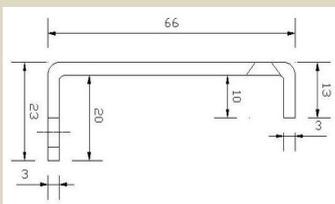
Calibration

Each LiteMeter LM1-10V PRO is calibrated for comparison with our Silicon Reference Cell calibrated periodically by ISFH Institute and a HP34410A Multimeter.



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 LM1-10V PRO is used in medium-sized PV systems.

LITEMETER SENSOR		
Product	LiteMeter LM1-10V PRO	
Standard Reference	IEC 60904-2 IEC 60904-4 IEC 60904-10	
Output	2 analog channels	
Input Range	irradiance	0 ÷ 1200 W / m ²
	Spectral range	0,3 μm ÷ 1,1 μm
	Temperature	-30 ÷ +85 °C
Output	Irradiance	0-10 V for 0-1200W/m ² factory calibrated
	Temperature	0÷10V for -20 ÷ 80°C (V=1.84 +0.092xT[°C]) guaranteed by design
Output precision	Irradiance	±3.5%
	Temperature	± 1.5 °C
	Response Time	< 100ms
Sensor Type	Solarimeter with 2 analog channels	
Supply	Ext. Current loop	12 ÷ 30 Vdc
Electronics non-linearity	< ± 0,1 %	
Temperature drift. -30 + 90°C	< ± 0,5 % at 1000 W/m ²	
Overall measurement uncertainty	± 2,4 % @ 1000 W/m ²	
Uncertainty reference cell	± 1,2 % (ISFH , accredited by Dakks)	
PV cell	monocrystalline silicon	
Encapsulant	Glass + E.V.A. + Poliester	
Cable	60cm or 3 m shielded cable Ø 4.9 mm, conductors 4 x 0,25mm ² , 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	