

Litemeter LM1-420 PRO

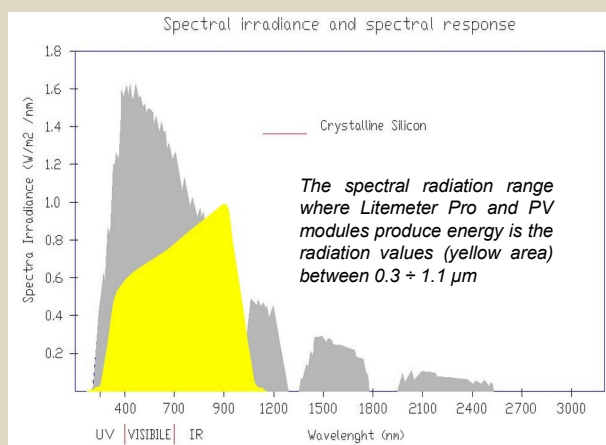
Litemeter LM1-420 PRO is an analog photovoltaic pyranometer (or solar irradiance sensor) equipped with a monocrystalline silicon cell laminated in glass and its output is temperature compensated. Manufacturing and Calibrations are done following the **IEC 61215, IEC 60904-2; 60904-4; 60904-10 regulations**.

Measurement features

Litemeter **LM1-420 PRO** has a **photovoltaic cell** which is laminated **with E.V.A. and a high performance anti-reflective glass for photovoltaic modules**. The **4-20mA current loop output** allows to obtain reliability and a high rejection to signal noise. This guarantees quality signal even at long distances (30m and more) also in areas with many electromagnetic disturbances like industrial areas and photovoltaic systems greater than 100 Kw.

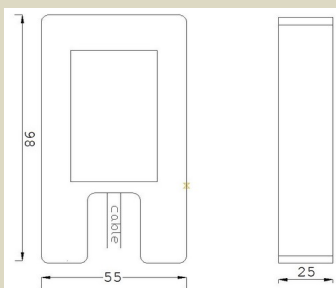
The device is calibrated with our Primary Reference cell calibrated periodically by **ISFH Institute**, accredited by **Dakks**.

Spectrum of interest

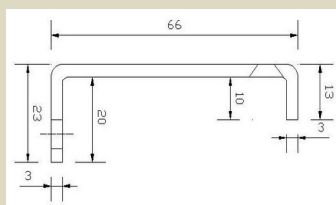


Calibration

Each Litemeter LM1-420 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 LM1-420 PRO is used in small-medium PV systems, but for its high EMC immunity can be used in large PV systems

LITEMETER SENSOR		
Product	Litemeter LM1-420 PRO	
Standard Reference	IEC 60904-2 IEC 60904-4 IEC 60904-10 IEC 61724-1:2017	
Output	Analog	
Input Range	irradiance	$0 \div 1600 \text{ W / m}^2$
Output	Current	$4 \div 20 \text{ mA}$ (max output: 25mA)
Output precision	irradiance	$\pm 3\%$ Temperature compensated
Working temperature	$-25 \div +80 \text{ }^\circ\text{C}$	
Response Time	< 100ms	
Sensor Type	Solarimeter with temperature compensation	
Supply	Ext. Current loop	$9 \div 30 \text{ Vdc}$
Electronics non-linearity	< $\pm 0,2 \%$	
Temperature drift. $-30 \div +90^\circ\text{C}$	< $\pm 0,5 \%$ at 1000 W/m^2	
Overall measurement uncertainty	$\pm 2,5 \%$ @ 1000 W/m^2	
Uncertainty reference cell	$\pm 1,2 \%$ (ISFH , accredited by Dakks)	
PV cell	monocrystalline silicon	
Encapsulant	Glass + E.V.A. + Poliester	
Cable	50cm cable, UV and high temperature resistant	
Connector	Female 3 pin (IP67 code)	
Dimensions	98x55x25 mm without fixing bracket	
Weight	304 g	
IP code	IP 65	