SG70S-V1-O
The Solar Irradiance & Temperature Meter

太陽輻射能量監測器
Solar Irradiation Monitor
Model:

| 輻射功率 Active Irradiance W/m² | 總量計量 Total Energy kWh | 周圍溫度 Ambient Temp. ℃ | 模板背溫 Back Temp. ℃ |

The Solar Irradiance & Temperature Meter can transmit measured data to computing system via RS-485 or ZigBee(via SG90-SZ-O RS485 to ZigBee converter). The meter can analyze the long-term power generating performance based on cumulated solar power output (kWh) and temperature of solar panels. Incorporate with DC meter, the Solar Irradiance & Temperature Meter can also measure real-time solar irradiance (W/m^2) and immediately calculate the immediate power generating efficiency of solar panels. Furthermore, the meter can measure maximum 2500W/m^2 irradiance in the wide range of areas as well as temperature of both front and back side of solar panels.

Multi-function
Combine measurement, display and communication functionalities, the meter can measure real-time irradiance (W/m^2), solar power output (kWh), and temperature for both front and back side of solar panels. Besides the liquid-crystal display (LCD) on the meter, users can also oversee Solar Irradiation & Temperature data on a computing system via embedded RS-485 or ZigBee wireless communication technologies.

Real-time and Cumulated Irradiance Power Calculation
The meter can provide both Real-time and cumulated Irradiance Power (kWh). It will maintain the last measured data during power outage and continues to accumulate the value after the power is restored.

Wide Measurement Range, High Resolution
The meter can show real-time irradiance power (10.0-2500.0 W/m2) On LCD Panel and calculate it into solar power output. The resolution range is 0.001kWh~99999kWh.

Easy operation
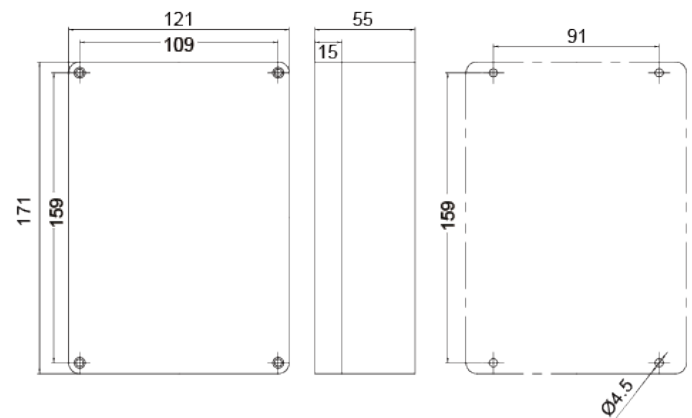With IP55 water/dust resistance transparent enclosure and three touch bottoms, the meter is easy to operate.

Clear Display
Blue backlight liquid-crystal display (LCD) can show 5 digit number.

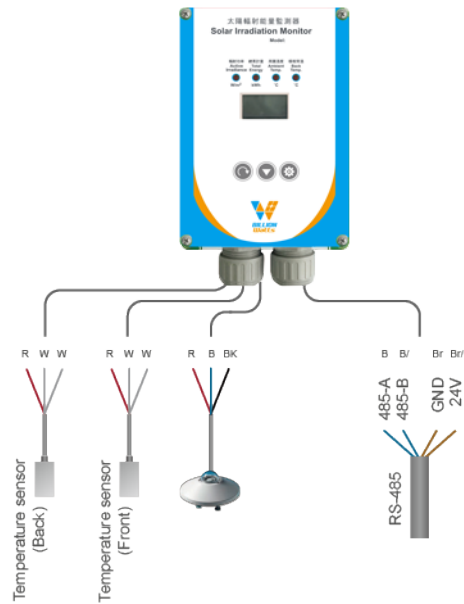## Low power consumption
Less than 0.7W

Dimensions (unit=mm)

121	55	91
109	15	
171 159		159
		Ø4.5

Technical Specifications

Input Voltage	DC18V-24V, <50mA
Pyranometer display range/ Accuracy	0-2500 W/m^2 · ±1%(@ 100 0 W/m^2)
Total cumulated irradiance/ Accuracy	0~99999kWh · ±1%
Temperature display range (Front)	±0.5℃ (@50℃)
Temperature display range (Back)	±0.5℃ (@50℃)
Display	(A) Solar Irradiance (W/m^2) (B) Cumulated solar power output (kWh) (C) Temperature of solar panels (Front) ℃ (D) temperature of solar panels (Back) ℃
Communication interface	RS-485 Interface (Series)
Power consumption	> 0.7W
Operating temperature	-20℃~65℃
IP55 Enclosure size	12.1(W)x17.1(L)x5.5(H)cm

Wiring diagram

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