

# Fluke IRR1-SOL Solar Irradiance Meter



Fluke IRR1-SOL



## One easy-to-use tool for testing solar panels and PV systems.

The Fluke IRR1-SOL Irradiance Meter has been designed from the ground up to simplify the installation, commissioning and troubleshooting of photovoltaic arrays and solar panels. Whether surveying, installing, executing maintenance, or checking the performance of solar panels or photovoltaic systems there are four critical measurements that technicians require, and that the Fluke IRR1-SOL Irradiance Meter delivers:

- **Solar irradiance:** Make instantaneous measurements to determine the watt per square meter solar irradiation, required by the IEC 62446-1 standard
- **Ambient and PV module temperature:** Measure temperature by either placing the meter directly on the panel or by connecting the external probe
- **Array orientation:** Find cardinal direction with the built-in compass
- **Tilt angles:** Verify inclination of a roof or panel with the tilt function

### Built to go where you go

With a rugged, compact design, a protective carrying case, and an easy-to-read, high contrast LCD screen to read measurements in direct sunlight, the IRR1-SOL can go where you go. The simple user interface, instantaneous solar irradiation measurements, and built-in temperature sensor make it easy to meet the IEC 62446-1 requirements for testing, documenting, and maintaining photovoltaic systems.

### The IRR1-SOL features:

- A high precision mono-crystalline solar sensor for irradiance measurements up to 1400 W/m<sup>2</sup>
- Two options for temperature measurement – a built-in sensor and an external suction mount probe
- An integrated compass
- An inclination sensor for the tilt function

### Learn More



Key Features		IRR1-SOL
<b>Irradiance</b>		
Measuring Range		50 to 1400 W/m <sup>2</sup>
Resolution		1 W/m <sup>2</sup>
Measuring Accuracy		±(5% + 5 Digit)
<b>Temperature Measurement</b>		
Measuring Range (° C)		-30° C to 100° C (-22 °F to 212 °F)
Resolution		0.1 °C (0.2 °F / 1 °F @>100 °F)
Measuring Accuracy		±1° C (±2 °F) @ -10° C to 75° C (14 °F to 167 °F) ±2° C (±4 °F) @ -30° C to -10° C (-22 °F to 14 °F) ±2° C (±4 °F) @ 75° C to 100° C (167 °F to 212 °F)
<i>Note: Temperature measurement response time: ~ 30 seconds</i>		
<b>Inclination Angle</b>		
Measuring Range		-90° to +90°
Resolution		0.1°
Measuring Accuracy		±1.5° @ -50° to +50°, ±2.5° @ -85° to -50° and +50° to +85°, ±3.5° @ -90° to -85° and +85° to +90°
<b>Compass</b>		
Measuring Range		0° to 360°
Resolution		1°
Measuring Accuracy		±7°
<i>Note:</i> a) Compass Measurements valid for device inclination between -20° and +20° to horizontal. Measurements taken outside that range appear as "----". b) Result is referred to magnetic North		
<b>Protection</b>		
Ingress Protection		IEC 60529: IP40
<b>General Specifications</b>		
Battery Life (typical)		50 hour (≤9000 readings)
Weight		231 g (8.14 oz)



solar.fluke.com

## Work in the Solar Industry?

Visit the link to learn how Fluke tools can help with the future of power.



### Included Accessories

FLK-80PR-IRR External Temperature Probe with Suction Cup, C250 Carrying Case with Shoulder Strap, Four AA Alkaline Batteries and User Manual.

### Ordering Information

**FLK-IRR1-SOL** Solar Irradiance Meter

Contact your local distributor for price and availability.  
fluke.com/wtb