

**WARNINGS ABOUT USE OF REFERENCE CELL HT304N**

- HT304N is a passive sensor and do not require any power supply
- Avoid exposing the instrument to mechanical shock paying additional attention to the glass
- Protect the glass against any contact with abrasive surfaces
- Do not apply any voltage to instrument's outputs
- Install the sensor in position clear of obstructions that may introduce shading or reflections effects by distorting the sensor reading
- Always check the parallelism between the sensor and the photovoltaic module under consideration (error max  $\pm 2^\circ$ ). The non-perfect parallelism between the sensor and the PV module surface could affect the outcome of the measure
- The usage of the stirrup is highly recommended. Fix the stirrup in a central position of the PV module edge. The stirrup is provide of a fixing screw compatible with holes placed on the back side of the PV module frame
- Once positioned the stirrup, insert the sensor into its holder with its connectors oriented downside (if possible) in order to avoid shadowing effects
- Expose the sensor to the test conditions (radiation temperature, inclination) at least 1 minute before performing the readings in order to avoid working with the sensor not yet in steady state

**1. TECHNICAL SPECIFICATIONS****Irradiation**

Range [W/m <sup>2</sup> ]	Accuracy (*)
50 ÷ 1400	$\pm 3.0\%$ of readings

(\*) Accuracy is grant under the following conditions:

- Temperature:  $-20 \div 50^\circ\text{C}$  ; Incidence angle:  $90^\circ \pm 25^\circ$  ; Air mass (AM): 1.5

**2. GENERAL SPECIFICATIONS**

Available reference cells: MONO Crystalline and MULTI Crystalline Silicon

**Guidelines**

Safety: IEC/EN 61010-1  
Technical literature: IEC/EN 61187  
Calibration: IEC/EN 60904-2  
Mechanical protection: IP65 in compliance with IEC/EN 60529  
Pollution degree: 2

**Mechanical characteristics**

Dimensions (LxWxH): 120x85x40 mm  
Weight: 260g

**Environmental conditions**

Working temperature:  $-20^\circ\text{C} \div 50^\circ\text{C}$   
Storage temperature:  $-20^\circ\text{C} \div 60^\circ\text{C}$

**This instrument complies with the requirements of the European Low Voltage Directive 2006/95/CE (LVD) and EMC Directive 2004/108/CE**