

## Compact Weather Station



The Compact Weather Station is part of the SEVEN meteorological sensor range, which includes professional and intelligent measuring sensors with a digital interface for environmental and industrial applications such as PV plants.

It is a compact all-in-one weather station with measures of irradiance, temperature, wind speed, wind direction, relative humidity, air pressure and rainfall.

All measured meteorological data are transferred to dataloggers and receiver units via a 2-wire RS485 bus with Modbus RTU protocol.

The flexible design of the Compact Weather Station makes it possible to select external sensors according to the required parameters in meteorological applications.

SEVEN products use reliable and high-quality components to provide accurate meteorological information in environmental and industrial applications. They are specially designed according to the requirements of PV plant monitoring systems.

## Benefits and Features

- Removable Not Required Sensors
- Compact Flexible Design
- High Accuracy
- Fast & Simple to Install
- Low Power Consumption
- Free Software Update
- SunSpec Compliant
- SEVEN Remote Setup Service
- SEVEN Customer Support
- 2 Years Warranty

## Specifications

<b>Measured Data</b>	Global & Plane of Array Irradiance, Module & Ambient Temperature, Wind Speed & Direction, Relative Humidity, Air Pressure and Precipitation.
<b>Standards</b>	Compliant to IEC 61724-1:2021
<b>Digital Outputs</b>	RS485 up to 38400 Baud
<b>Communication Protocol</b>	Modbus RTU (Optional Modbus TCP/IP)
<b>Output Rate</b>	1/s
<b>Operating Temperature Range</b>	-40°C to +85°C
<b>Operating Humidity Range</b>	0 to 100 %RH
<b>Mounting Structure</b>	Aluminum & Stainless Steel
<b>Dimensions</b>	720 x 1370 x 855 mm (W x L x H) (Height can be changed as per request)
<b>Weight</b>	4.8 kg
<b>IP Rating</b>	IP 54 (Optional IP 67)
<b>Power Supply</b>	12 to 30 V DC
<b>Power Consumption</b>	25 mA @ 24 V DC
<b>Electrical Connection</b>	3 m LIYYC11Y PUR Cable, UV and weather resistant
<b>Connection Box Material</b>	ABS*
<b>Galvanic Isolation</b>	1000 V between power supply and RS485 Bus
<b>Origin</b>	TÜRKİYE

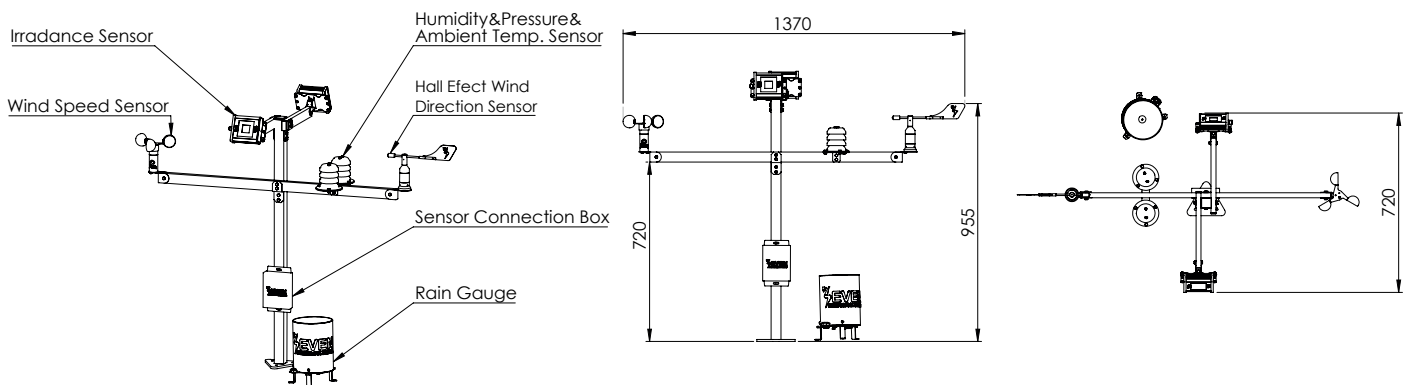
\*Since this product contains plastic parts, color changes may occur when exposed to direct sunlight.

## Technical Data

Irradiance	
Sensor Type	Silicon Reference Cell (31 x 31 mm)
Range	0 to 1600 W/m <sup>2</sup>
Resolution	0.1 W/m <sup>2</sup>
Standard	Class A according to IEC 61724-1 Calibration according to IEC 60904-4
Module & Ambient Temperature	
Sensor Type	PT1000
Range	-40°C to +85°C
Accuracy	± 0.1°C
Resolution	0.1°C
Standard	Class A according to IEC 60751:2022
Pressure	
Range	260 to 1260 hPa
Resolution	0.1 hPa
Accuracy	± 0.5 hPa
Precipitation	
Measurement Type	Tipping Bucket Rain Gauge
Collection Area	200 m <sup>2</sup>
Resolution	0.1 mm
Units	mm/s, mm/min, mm/hr

Wind Speed	
Sensor Type	Cup Star Anemometer (Reed Switch)
Range	0.9 to 40 m/s
Accuracy	± 0.3 m/s or ± 3% of measuring value
Resolution	0.1 m/s
Threshold	0.9 m/s
Standard	Compliant to IEC 61724-1:2021
Wind Direction	
Sensor Type	Wind Vane (Potentiometer)
Range	0° to 359°
Accuracy	± 3°
Resolution	1°
Standard	Compliant to IEC 61724-1:2021
Humidity & Ambient Temperature	
RH Range	0% to 100%
RH Accuracy	± 1 % RH (20...70 %) @ 25 °C
RH Resolution	1%
T Range	-40°C to +85°C
T Accuracy	± 0.1 °C (5...60 °C) @ 20...80 % RH
T Resolution	0.1°C

## Technical Drawings



Note : All dimensions are in mm.