

METSENS600

Compact Weather Sensor for Temperature, RH, Barometric Pressure, Wind, and Precipitation with Compass



Measures 6 Common Meteorological Parameters

IEC 61724-1 Compliant

Overview

The MetSENS600 compact weather sensor measures wind speed and direction via an ultrasonic sensor, as well as air temperature, relative humidity, and barometric pressure, in a single, combined instrument mounted inside three doublelouvered, naturally aspirated radiation shields with no moving parts. An optical precipitation sensing element senses fine amounts of water. An integrated electronic compass allows the MetSENS500 to provide accurate, relative wind direction measurements without being oriented in a particular way, making installation easier. WMO average wind speed and direction and gust, temperature, relative humidity, barometric pressure, absolute humidity, air density, wet bulb temperature, rainfall total, and rainfall intensity data are provided. The MetSENS600is available as part of a measurement station that employs the MeteoPV Solar Resource Platform and any other Campbell Scientific data logger using SDI-12, RS-485, ModbusRS-485, or RS-232.

Benefits and Features

- Quality measurements
- Fast and simple to install

- Compact, integrated design
- Lightweight and robust

Specifications

Measurements Made	Air temperature, barometric pressure, precipitation, relative humidity, wind direction, and wind speed.
Sampling Rate	1 Hz
Digital Communication Modes	Serial RS-232, RS-485, SDI-12, NMEA, Modbus, ASCII
IP Rating	66
Compliance	CE, RoHS

	Where applicable, all individual parameters meet or exceed specifications of IEC 61724-1 (2017, 2021).
Operating Temperature Range	-40° to +70°C
Operating Voltage	5 to 30 Vdc
Typical Current Drain @ 12 Vdc	 0.7 mA (eco-power mode; 1 hour polled) 25 mA (continuous high mode)

Weight	0.8 kg (1.8 lb)
Air Temperature M	leasurement
Measurement Range	-40° to +70°C
Resolution	0.1°C
Accuracy	±0.3°C (@ 20°C)
Relative Humidity	Measurement
Measurement Range	0 to 100%
Resolution	0.1
Accuracy	±2% @ 20°C (10 to 90% RH)
Barometric Pressu	re Measurement
Measurement Range	300 to 1100 hPa
Resolution	0.1 hPa
Accuracy	±0.5 hPa (@ 25°C)
Wind Speed Mease	urement
Measurement Range	0.01 to 60 m s ⁻¹
Accuracy	 ±3% (up to 40 m s⁻¹) ±5% (up to 60 m s⁻¹)

Resolution	0.01 m s ⁻¹	
Starting Threshold	0.01 m s ⁻¹	
Wind Direction Measurement		
Measurement Range	0° to 359°	
Accuracy	$\pm 3^{\circ}$ (up to 60 m s ⁻¹)	
Resolution	1°	
Precipitation Measurement		
Measurement Type	Optical	
Measurement Range	0 to > 300 mm h^{-1}	
Precipitation Resolution	0.08 mm	
Repeatability	3%	
Compass		
Measurement Range	0 to 359°	
Resolution	1°	
Units of Measure	Degrees	
Accuracy	±3°	

For comprehensive details, visit: www.campbellsci.com/metsens600



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