CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

METSENS500
Compact Weather Sensor for Temperature, RH, Barometric Pressure, and Wind with Compass

Measures 5 Common Meteorological Parameters

Includes a compass

Overview

The MetSENS500 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 double-louvered, naturally aspirated radiation shields with no moving parts. An integrated electronic compass provides apparent wind measurements. WMO average wind speed and direction and gust, temperature, relative humidity, barometric pressure, absolute humidity, air density, and wet bulb temperature data are provided. The MetSENS500 is compatible and easily integrated with the MeteoPV Solar Resource Platform and any Campbell Scientific data logger using SDI-12, RS-485, ModbusRS-485, or NMEA RS-232.

Benefits and Features

❯ Quality measurements

❯ Fast and simple to install

❯ Compact, integrated design

❯ Lightweight and robust

❯ Two-year warranty

Specifications

Sampling Rate	1 Hz
Digital Communication Modes	Serial RS-232, RS-422, RS-485, SDI-12, NMEA, Modbus, ASCII
IP Rating	66
Compliance	CE, RoHS
Operating Temperature Range	-40° to +70°C
Operating Voltage	5 to 30 Vdc

Typical Current Drain @ 12 Vdc	❯ 25 mA (continuous high mode) ❯ 0.7 mA (eco-power mode; 1 hour polled)
Weight	0.7 kg (1.5 lb)

Air Temperature Measurement

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 Pressure Measurement

Measurement Range	300 to 1100 hPa
Resolution	0.1 hPa
Accuracy	±0.5 hPa (@ 25°C)

Wind Speed Measurement

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	› ±3° (up to 40 m s^{-1}) › ±5° (up to 60 m s^{-1})
Resolution	1°

For comprehensive details, visit: www.campbellsci.com/metsens500