

SEM1000B Ultrasonic integrated weather station
MAIN FEATURES

- Wide range 0-120Kpa air pressure range, applicable to various altitudes;
- Integrate wind speed, wind direction, temperature and humidity, noise collection, PM2.5 and PM10, CO2, atmospheric pressure in one;
- Wind speed and direction are measured by ultrasonic principle, no start-up wind speed limit, zero wind speed work, no angle limit, 360° omni-directional, wind speed and wind direction data can be obtained at the same time;
- The key components adopt imported components, which are stable and reliable, and have the characteristics of wide measurement range, good linearity, good waterproof performance, convenient use, easy installation, and long transmission distance.

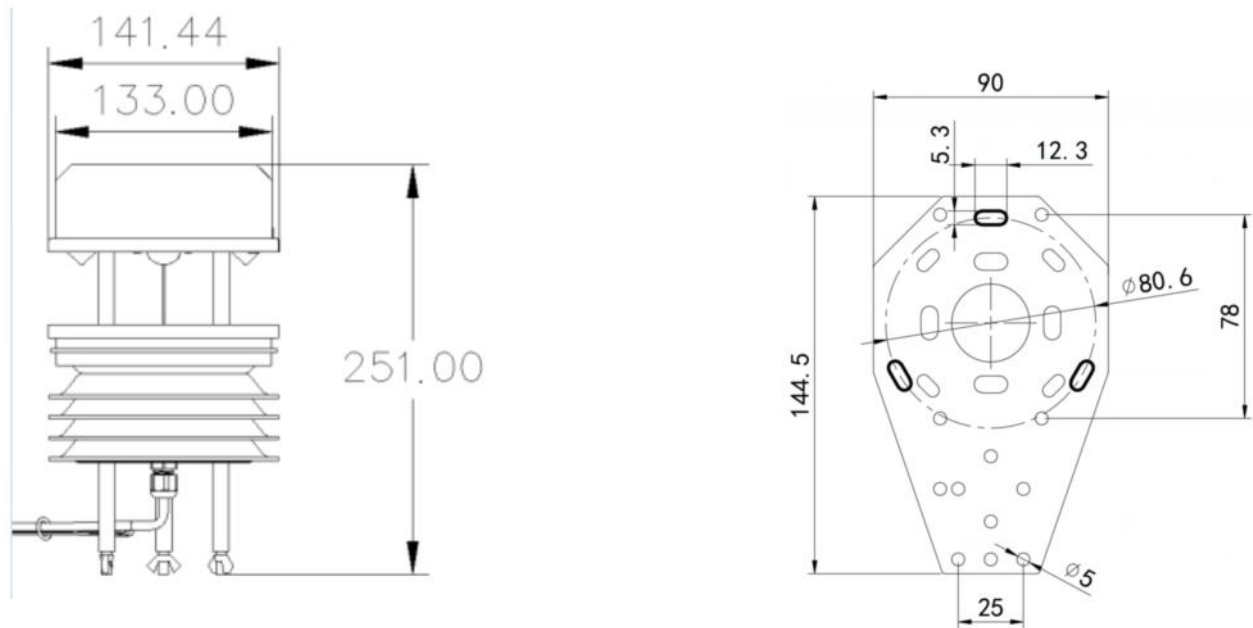

OVERVIEW

SEM1000B this all-in-one weather station can be widely used in environmental detection, integrating wind speed, wind direction, temperature and humidity, noise collection, PM2.5 and PM10, CO2, atmospheric pressure, and light. The equipment adopts standard MODBUS-RTU communication protocol and RS485 signal output, The communication distance can be up to 2000 meters, and the data can be uploaded to the customer's monitoring software or PLC configuration screen through 485 communication, and it also supports secondary development. With the built-in electronic compass selection device, there is no longer a position requirement during installation, just ensure that it is installed horizontally. It is suitable for use in mobile occasions such as marine, ship, and automobile transportation, and there is no direction requirement during installation. This product is widely used in various occasions that need to measure environmental temperature and humidity, noise, air quality, CO2, atmospheric pressure, light, etc. It is safe and reliable, beautiful in appearance, easy to install, and durable.

SPECIFICATION

ITEMS	Range	Accuracy	Stability	Response time
Wind speed	0~60m/s	$\pm(0.2\text{m/s}\pm 0.02*v)$	-	1S
Wind direction	0-359 °	$\pm 3^\circ$	-	1S
Temperature	- 40 °C - + 80 °C	$\pm 0.5^\circ\text{C}$ (25°C)	$\leq 0.1^\circ\text{C}/\text{y}$	$\leq 1\text{s}$
Humidity	0%RH~99%RH	$\pm 3\%\text{RH}$ (60%RH,25°C)	$\leq 1\%/y$	$\leq 1\text{s}$
Atmospheric pressure	0-120Kpa	$\pm 0.15\text{Kpa}@25^\circ\text{C}$ 75Kpa	-0.1Kpa/y	$\leq 1\text{s}$
Noise	30dB~120dB	$\pm 3\text{db}$	$\leq 3\text{db}/y$	$\leq 1\text{s}$
PM10 PM2.5	0-1000ug/m3	$\pm 10\%$ (25°C)	$\leq 1\%/y$	$\leq 90\text{S}$
Illuminance	0-200000lux	$\pm 7\%$ (25°C)	$\leq 5\%/y$	$\leq 0.1\text{s}$
CO2	0-5000ppm	$\pm(40\text{ppm}+ 3\%F\cdot S)$ (25°C)	$\leq 1\%/y$	$\leq 90\text{S}$
Digital output	RS485(Modbus)			
Power supply	10V-30V DC			
Operating environment	-40°C - 70 °C, 0-100%RH			
Power consumption	1.2W			
Material	White/ABS+Aluminum alloy			

DIMENSION



ORDER CODE

Name	Micro automatic meteorological station / urban ambient air station	
SEM1000 B	CODE	Function type
	A	Wind speed + wind direction+temperature +humidity + atmospheric pressure
	B	Wind speed + wind direction+temperature +humidity + atmospheric pressure+PM2.5/PM10
	C	Wind speed + wind direction+temperature +humidity + atmospheric pressure+PM2.5/PM10+illumination
	D	Wind speed + wind direction+temperature +humidity + atmospheric pressure+illumination+noise
	E	Wind speed + wind direction+temperature +humidity + atmospheric pressure+illumination+noise+PM
F	Wind speed + wind direction+temperature +humidity + atmospheric pressure+PM-illumination+noise+PM+CO2	
<p>Note: the above parameters can be selected and combined according to the user's requirements. Please specify the specific parameters and quantity when ordering.</p>		