SEM1000 Mini Weather Station

MAIN FEATURES

- Wind speed and direction are measured by the principle of ultrasonic wave, no angle limit, 360° omni-directional
- Noise collection, accurate measurement, the range is as high as 30dB~120dB.
- PM2.5 and PM10 are collected at the same time, range: 0-1000ug/m3, resolution 1ug/m3, unique dual-frequency data collection and automatic calibration technology, the consistency can reach ±10%.
- Measure the environmental temperature and humidity, the measuring unit is imported from Switzerland, the measurement is accurate.
- For devices with built-in electronic compass, there is no direction requirement during installation, and it can be installed horizontally.
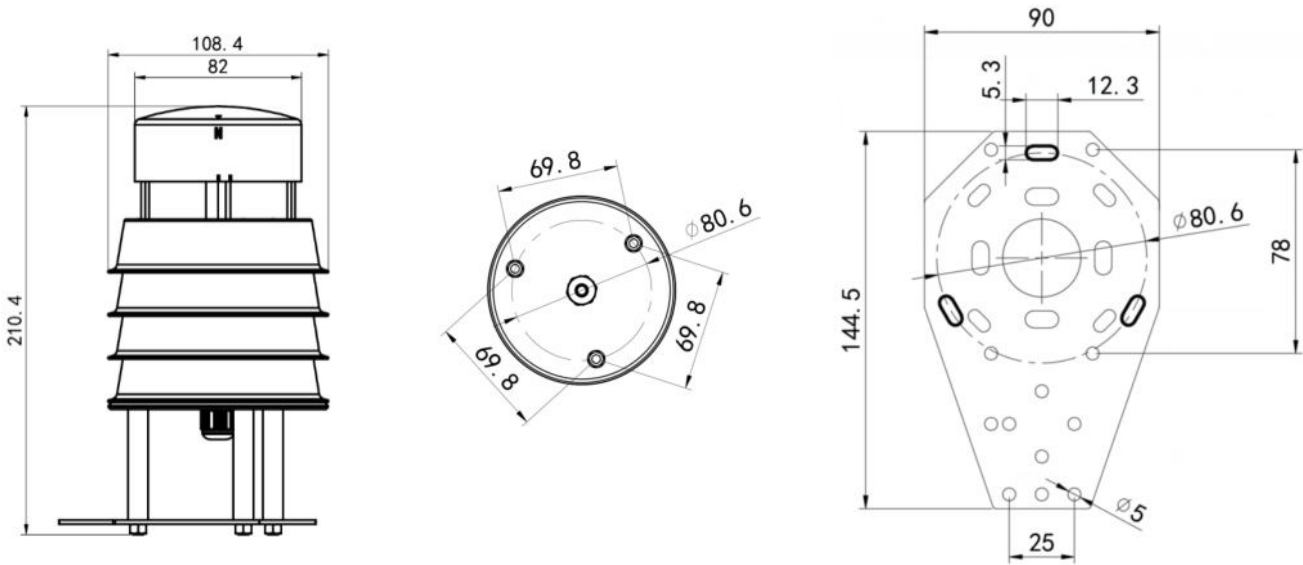
OVERVIEW

SEM1000 integrated weather station can be widely used in environmental detection, integrating wind speed, wind direction, temperature and humidity, noise collection, PM2.5 and PM10, atmospheric pressure, light, and rainfall. The equipment adopts standard MODBUS-RTU communication protocol and RS485 signal output. , The communication distance is 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 ships 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, 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	0~40m/s (0.5m/s start)	±0.5+2%FS	-	1S
Wind direction	0-359 °	±3 °	-	1S
Temperature	- 40 °C - + 80 °C	±0.5°C（25°C)	≤0.1°C/y	≤1s
Humidity	0%RH~99%RH	±3%RH(60%RH,25°C)	≤1%/y	≤1s
Atmospheric pressure	0-120Kpa	±0.15Kpa@25°C 75Kpa	-0.1Kpa/y	≤1s
Noise	30dB~120dB	±3db	≤3db/y	≤1s
PM10 PM2.5	0-1000ug/m3	±10%（25°C)	≤1%/y	≤90S
Illuminance	0-200000lux	±7%(25°C)	≤5%/y	≤0.1s
Rainfall*	24mm/min (Max. instantaneous rainfall)	±5% (Accuracy)	6cm (Sense of rain diameter)	0.1mm (Resolution)
Digital output	RS485(Modbus)			
Power supply	10V-30V DC			
IP protection	IP65			
Operating environment	-40°C - 70 °C, 0-100%RH			
Power consumption	0.7W			
Material	White/ABS+Aluminum alloy			

DIMENSION

ORDER CODE

Name	Micro automatic meteorological station / urban ambient air station	
	CODE	Function type
SEM1000	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+illumination+noise+PM+rainfall

Note: the above parameters can be selected and combined according to the user's requirements. Please specify the specific parameters and quantity when ordering.