SEM5136 Compact Meteorological Station

MAIN FEATURES

- Miniaturization design
- High integration, all-in-one
- Modular, no moving parts
- Special process heat insulation treatment of protective cover
- Support extended parameter

APPLICATION

- Meteorological monitoring
- Micro environmental monitoring
- Grid environment monitoring
- Agrometeorological monitoring
- Traffic meteorological monitoring
- PV environmental monitoring

OVERVIEW

SEM5136 is a compact meteorological station with 13 parameters, that is, the product parameters are temperature, humidity, air pressure, wind speed, wind direction, PM2.5, PM10, carbon monoxide, nitrogen dioxide, sulfur dioxide, ozone, H2S/TVOC (one of two), a total of 13 parameters. Through a highly integrated structure, it can realize 24-hour continuous online monitoring of outdoor meteorological parameters, and output 13 parameters to users at one time through digital communication interface.

SPECIFICATION

ITEMS	Range	Accuracy	Resolution	Sampling frequency
Wind speed	0-60m /s	±(0.3+0.03V) m/s; V≤30m/s ±(0.3+0.05V) m/s; V≥30m/s (V=standard wind speed value)	0.01m/s	10Hz
Wind direction	0-359.5°	± 3 ° (when wind speed ＜ 10m/s)	0.1°	10Hz
Air temperature	- 40 °C - + 85 °C	±0.3°C@25°C	0.01 °C	1Hz
Air Humidity	0-100%RH	± 3% RH (10% - 80% RH)	0.01%RH	1Hz
Atmospheric pressure	500 -1100hPa	±0.5hPa (25°C,950-1100hPa)	0.1hPa	1Hz
Noise	30-130dB	±1.5dB	0.1dB	1Hz
PM2.5	0-500ug/m ^{3} (expandable 1000ug/m ^{3})	±(10+10%)ug/m ^{3}	1ug/m^3	1Hz
PM10	0-500ug/m ^{3} (expandable 1000ug/m ^{3})	±(10+10%)ug/m ^{3}	1ug/m^3	1Hz
CO	0-10ppm	±5%FS	1ppb	1Hz
NO2	0-5ppm	±5%FS	1ppb	1Hz
SO2	0-5ppm	±5%FS	1ppb	1Hz
O3	0-5ppm	±5%FS	1ppb	1Hz
H2S	0-2ppm	±5%FS	1ppb	1Hz
TVOC	0-10ppm	±5%FS	1ppb	1Hz
Working temperature	-30°C~70°C			
Output signal	Default RS485 interface, ModbusRTU; Customizable SDI-12			
Max. output frequency	Passive mode: 1/S Active mode: 1/min			
Power supply	DC9-24V			
Protection level	IP65			
Fixing method	Default fixed by sleeve (Flange fixing or bending plate fixing optional)			
Fixing bracket	None for standard products, 1.5m and 1.8m brackets are optional			
Cable	Default 3m cable (other length optional)			
Customized functions	Heating function			

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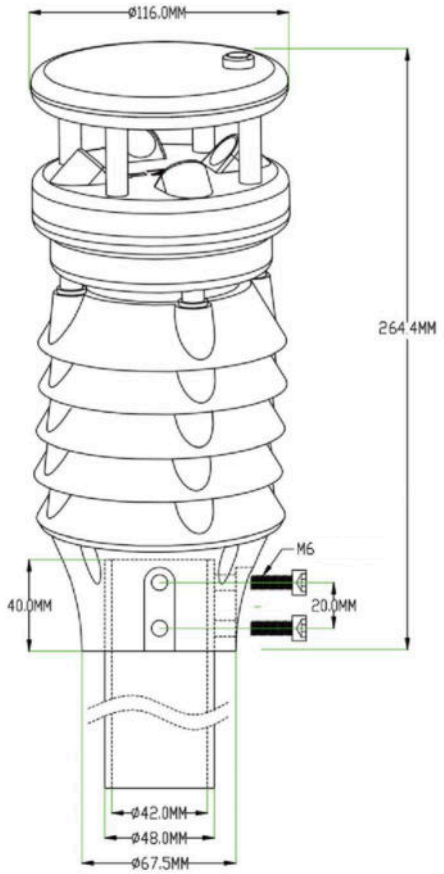
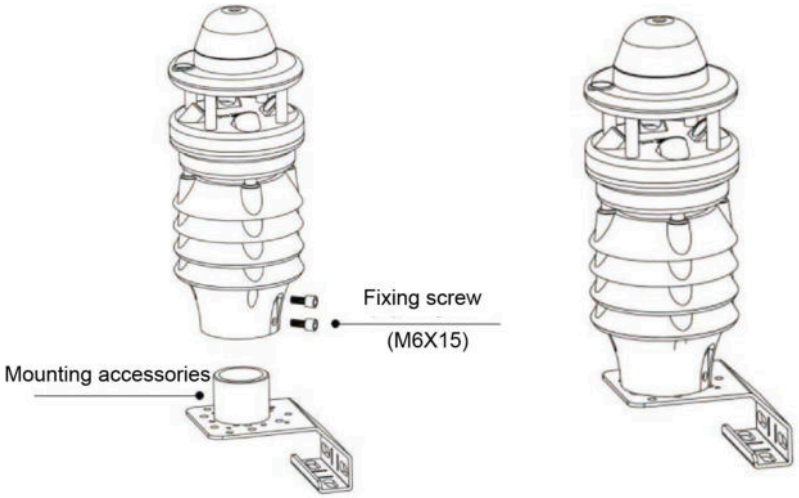
DIMENSION

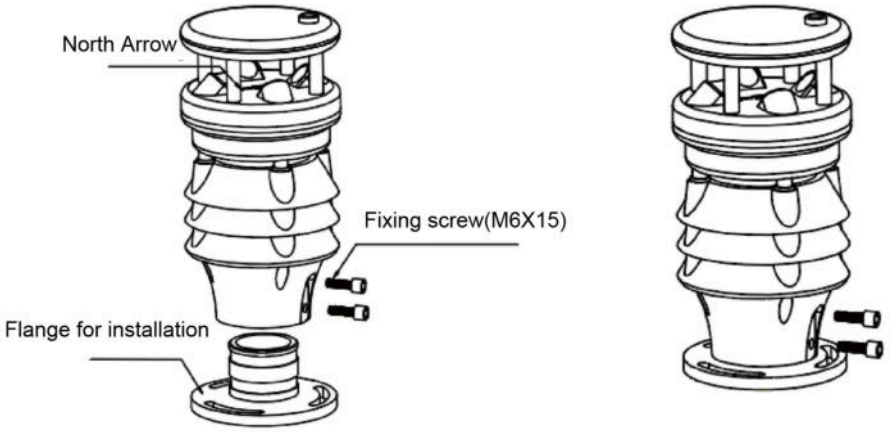


INSTALLATION

- *Fixing method of bending plate:*



- *Fixing method of flange plate:*



ORDER CODE

Name	Compact Weather Station	
Model	**Code**	Function
	SEM5136	Wind speed+wind direction+Temperature +humidity+Atmospheric pressure +Noise+PM2.5+PM10+CO+NO2+SO2+O3+H2S+TVOC

Note:

1. The sensor with integrated atmospheric temperature, humidity and pressure parameters is installed in a three-layer outdoor radiation shield, which is configured with special proportion of PC+fiber, and the internal thermal insulation layer is sprayed to minimize the impact of solar radiation. No moving parts, ensuring the accuracy of long-term measurement data.
2. Two parameters of wind speed and direction: measure the wind speed and direction through ultrasonic principle, and output the instantaneous wind speed, instantaneous wind direction, average wind speed, average wind direction and other data.
3. Noise: High precision electret pickup is selected to measure the environmental noise by A-weighting method. It has the characteristics of small volume, high precision and high sensitivity.
4. PM2.5/PM10 particles: Based on the principle of laser scattering, the number of suspended particles with different diameters in the air per unit volume can be continuously collected and calculated, that is, the particle concentration distribution.
5. The solid polymer probe is used for the measurement of pollution gas, which has a significant response to the change trend of pollution gas, and is suitable for the extensive point distribution measurement of pollution in the urban environment. The precise measurement of a single area is not its strong point.