

SEM5084 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

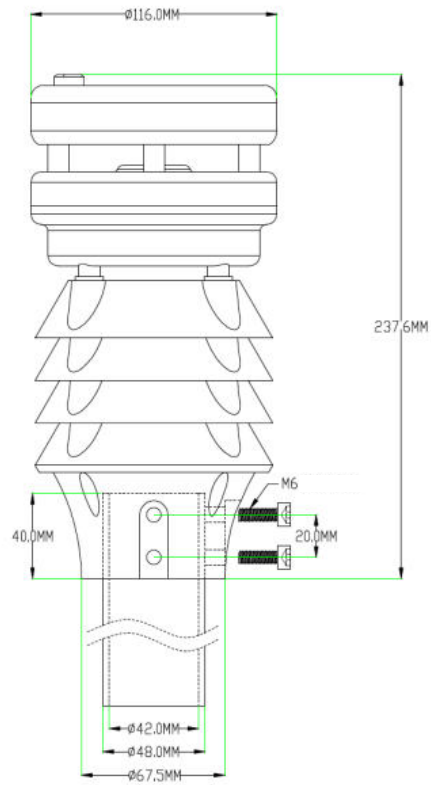

OVERVIEW

SEM5084 is a compact meteorological station, that is, the product parameters include atmospheric temperature, humidity, wind speed (third generation), wind direction (third generation), air pressure, PM2.5, PM10 and noise. Through a highly integrated structure, it can realize 24-hour continuous online monitoring of outdoor meteorological parameters, and output eight parameters to users at one time through the digital communication interface.

SPECIFICATION

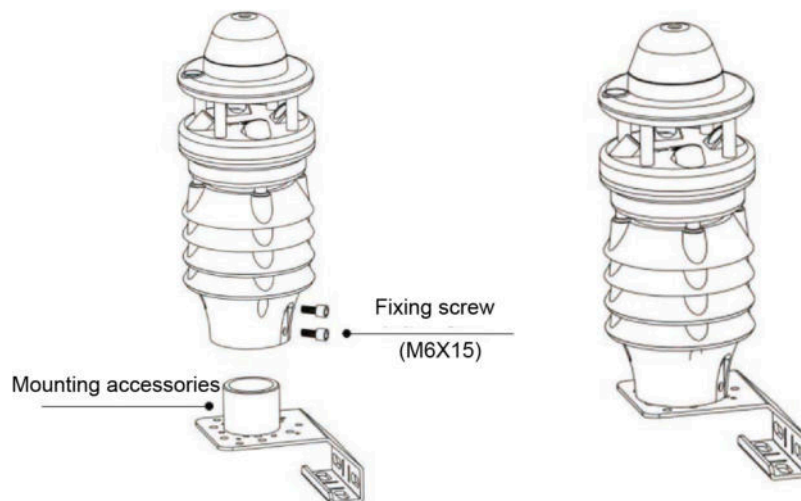
| ITEMS | Range | Accuracy | Resolution | Sampling frequency |
|-----------------------|--|---|--------------------|--------------------|
| Wind speed | 0-40m /s | ± (0.5+0.05V) M/S | 0.01m/s | 10Hz |
| Wind direction | 0-359.5° | ± 5° (wind speed < 10M/S) | 0.1° | 10Hz |
| Air temperature | - 40 °C - + 85 °C | ±0.3°C@25°C | 0.01 °C | 1Hz |
| Air Humidity | 0-100%RH | ± 3% RH (10% - 80% RH, no condensation) | 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 |
| 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) | | | |

DIMENSION

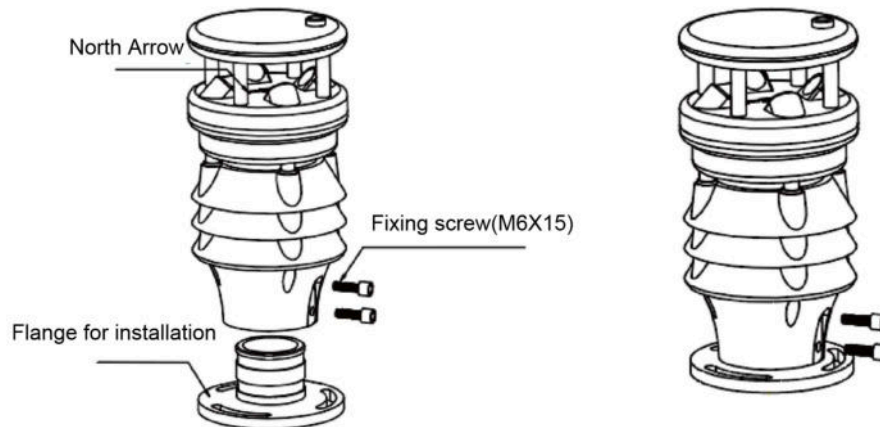


INSTALLATION

- *Fixing method of bending plate:*



- Fixing method of flange plate:



ORDER CODE

| | | |
|--------------|-------------------------|--|
| Name | Compact Weather Station | |
| Model | Code | Function |
| | SEM5084 | Wind speed+wind direction+Temperature +humidity+Atmospheric pressure +Noise+PM2.5+PM10 |

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.