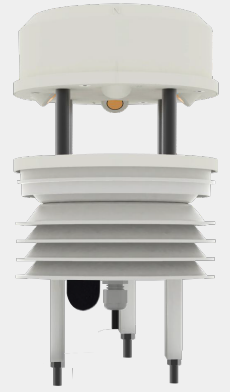


- This integrated meteorological station can be widely used for environmental detection, collecting **wind speed, temperature, humidity, noise, PM2.5 (FSXCS is standard in the selection table).**
- The device adopts the standard ModBus RTU communication protocol, with RS485 signal output.
- There is no directional requirement during installation, just ensure horizontal installation is sufficient.
- Using high-quality UV resistant materials, with a long service life and good waterproof performance.
- The wind speed is measured using the ultrasonic principle, with no starting wind speed limit and zero wind speed operation.
- Noise collection, precise measurement, with a range of up to 30dB~120dB.
- PM2.5 range: 0-1000 $\mu\text{g}/\text{m}^3$, Resolution 1 $\mu\text{g}/\text{m}^3$, Unique dual frequency data acquisition and automatic calibration technology, with consistency up to $\pm 10\%$.
- Measuring environmental temperature and humidity, the measurement unit is imported from Switzerland, and the measurement is accurate.



SPECIFICATION

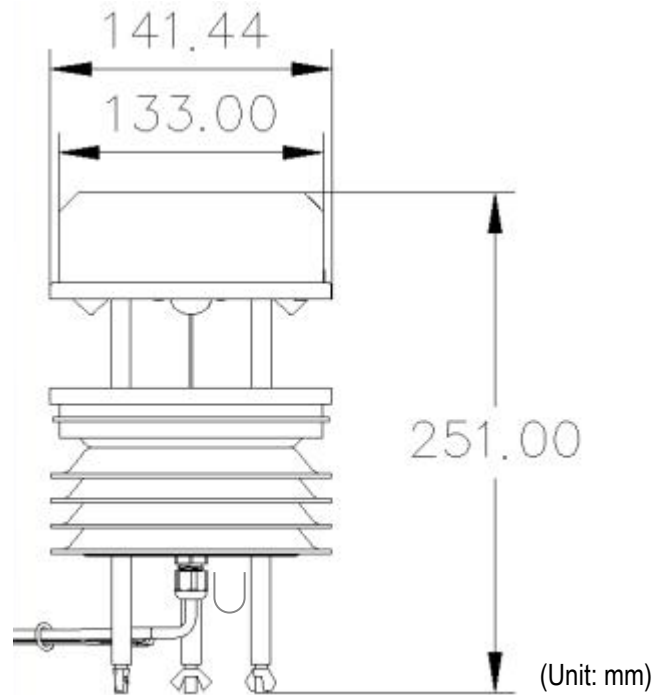
- ◆DC power supply: 10-30Vdc
- ◆Maximum power consumption: RS-485 output 1.2W
- ◆Accuracy:
 - Wind speed: $\pm(0.2\text{m/s}\pm 0.02^*v)$ (V is the actual wind speed) (60%RH, 25°C)
 - Humi.: $\pm 3\%$ RH (60%RH, 25°C)
 - Temp.: $\pm 0.5^\circ\text{C}$ (25°C)
 - Noise: $\pm 0.5\text{dB}$ (At reference pitch, 94dB@1kHz)
 - PM2.5: Particle counting efficiency: 50%@0.3 μm , 98%@ $\geq 0.5\mu\text{m}$
 - PM2.5 Accu. : $\pm 3\%$ FS (@100 $\mu\text{g}/\text{m}^3$. 25°C. 50%RH)
- ◆Measuring range:
 - Wind speed: 0~60m/s
 - Humi.: 0%RH~99%RH
 - Temp.: $-40^\circ\text{C}\sim+80^\circ\text{C}$
 - Noise: 30dB~120dB
 - PM2.5: 0~1000 $\mu\text{g}/\text{m}^3$
- ◆Long term stability:
 - Temp.: $\leq 0.1^\circ\text{C}/\text{y}$
 - Humi.: $\leq 1\%/y$
 - Noise: $\leq 3\text{dB}/y$
 - PM2.5: $\leq 1\%/y$
- ◆Response time:
 - Wind speed: 1s
 - Temp. &Humi.: $\leq 1\text{s}$
 - Noise: $\leq 1\text{s}$
 - PM2.5: $\leq 90\text{s}$
- ◆Output Signal: RS-485 output (Modbus communication protocol)

ORDER INFORMATION

DRS-FSXCS- Code1 - Code2 - Code3 (Code 2 and code 3 are expansion functions)

Code1	Output Signal	Code2	Detection	Code3	CO/PM
N01	RS-485	KPa	Atmospheric pressure	CO2	CO2
L01	LoRa AS923	Lux	Illumination	10	PM10
		Deg	Wind direction	N	None
		N	None		

DIMENSION



WIRING CONNECTION

	Color	Description
Power	Brown	Power+(10-30Vdc)
	Black	Power-
RS-485	Yellow(Green)	485-A
	Blue	485-B

DC power supply 10-30V
 When RS-485 signal, pay attention that the A/B wires cannot be reversed, and the addresses of multiple devices on the bus cannot conflict.

OPTIONAL FEATURES

1. **The atmospheric pressure** has a wide range of 0-120kPa and can be applied to various altitudes.
2. **Illumination** range: 0-200000 Lux with a resolution of $\pm 0.7\%$. Imported components with high stability long lifespan.
3. **The wind direction** is measured using the principle of ultrasonic waves, with no angle restrictions, and 360 degrees in all directions.
4. **CO2** measurement: 0-5000ppm, resolution of 1 ppm.
5. **PM10** range 0~1000 $\mu\text{g}/\text{m}^3$, Resolution 1 $\mu\text{g}/\text{m}^3$, Unique dual frequency data acquisition and automatic calibration technology, with consistency of up to $\pm 10\%$.