

SEM230 Multifunctional air quality transmitter
MAIN FEATURES

- The temperature and humidity measurement unit is imported from Switzerland, and the measurement is accurate;
- PM2.5 and PM10 are collected at the same time, the range is 0-1000ug/m³, the resolution is 1ug/m³, the unique dual-frequency data collection and automatic calibration technology, the consistency can reach $\pm 10\%$;
- The gas unit adopts electrochemical and catalytic combustion sensors, which have excellent sensitivity and repeatability;
- The air pressure range is a wide range of 0-120Kpa, which can be applied to various altitudes;
- The TVOC measuring unit adopts imported high-sensitivity gas detection probes, with mature technology and high-performance signal acquisition circuits, with stable signals and high accuracy.


SPECIFICATION

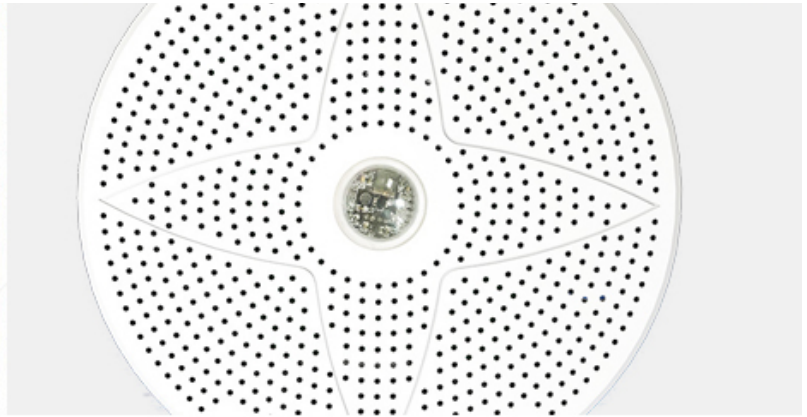
Parameters	Range	Resolution	Accuracy	Preheating time
Air temperature	-40°C~+120°C	0.1°C	$\pm 0.5^{\circ}\text{C}(25^{\circ}\text{C})$	$\leq 2\text{min}$
Air humidity	0~100%RH	0.1%RH	$\pm 3\%RH(60\%RH, 25^{\circ}\text{C})$	$\leq 2\text{min}$
Air pressure	0~120Kpa	0.1Kpa	$\pm 0.15\text{Kpa}@25^{\circ}\text{C}75\text{Kpa}$	$\leq 2\text{min}$
Illuminance	0-200,000 Lux	1Lux	$\pm 7\%(25^{\circ}\text{C})$	$\leq 2\text{min}$
Noise	30-130db	$\pm 3\%F.S$	0.1dB	$\leq 2\text{min}$
PM2.5 / PM10/PM1.0	0~1000ug/m ³	$\pm 10\%$	1ug/m ³	$\leq 2\text{min}$
TSP/PM100	0~20000ug/m ³	$\pm 3\%F.S$	1ug/m ⁴	$\leq 2\text{min}$
TVOC	0~60000ppb	1ppb	$\pm 8\%FS \pm 125\text{ppb}$	$\leq 2\text{min}$
CO ₂	0~5000ppm	1ppm	$\pm (40\text{ppm} + 3\%F.S)$	2min
Formaldehyde	0~5ppm	0.01ppm	$\pm 5\%FS$	$\geq 5\text{ minutes}$
Ozone	0~10ppm	0.01ppm	$\pm 6\%FS$	$\geq 5\text{ minutes}$
O ₂	0~25%Vol	0.1%Vol	$\pm 3\%FS$	$\geq 5\text{ minutes}$
H ₂ S	0~100ppm	1ppm	$\pm 3\%FS$	$\geq 5\text{ minutes}$
CH ₄	0~100%LEL	1%LEL	$\pm 5\%FS$	$\geq 5\text{ minutes}$
CO	0~1000ppm	1ppm	$\pm 3\%FS$	$\geq 5\text{ minutes}$
NO ₂	0~20ppm	0.1ppm	$\pm 3\%FS$	$\geq 5\text{ minutes}$
SO ₂	0~20ppm	0.1ppm	$\pm 3\%FS$	$\geq 5\text{ minutes}$
H ₂	0~1000ppm	1ppm	$\pm 3\%FS$	$\geq 5\text{ minutes}$
NH ₃	0~100ppm	1ppm	$\pm 2\%FS$	$\geq 5\text{ minutes}$
Power supply	DC 10-30V (default)			
Max. power	1.2W			
Test parameters	TVOC, formaldehyde, O ₃ , Co, CH ₄ , O ₂ , SO ₂ , NO ₂ , H ₂ , H ₂ S, NH ₃			
Work environment	Temperature - 10 °C - 55 °C; humidity 0 ~ 95% RH, non condensing			
Signal output	RS485 output (standard Modbus RTU protocol), analogue output, RJ45			
Product material	ABS			
Installation method	Bracket installation			

OUTLINE CONSTRUCTION

1

DUAL-FREQUENCY

Unique dual-frequency data acquisition and automatic calibration technology



2

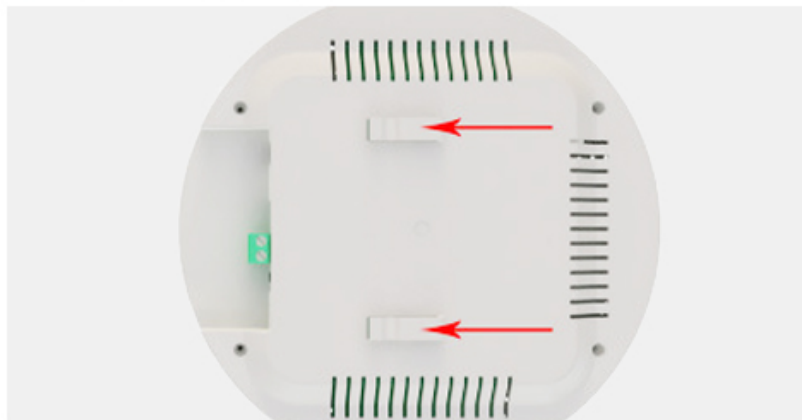
ABS MATERIAL

Engineering plastic ABS shell lighter weight, more stable structure

3

WALL-MOUNTED

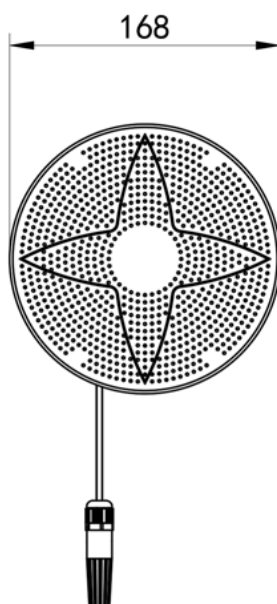
Snap-in installation Device snap-on installation, ceiling installation or wall-mounted installation



4

PROBE

Electrochemical and catalytic combustion sensors, with excellent sensitivity and repeatability

DIMENSION

ORDER CODE

SEM230	Multifunctional air quality transmitter		
	CODE	Function code	
	A	Temperature and humidity	
	B	formaldehyde	
	C	illumination	
	D	atmospheric pressure	
	E	PM2.5/PM10	
	F	carbon dioxide (CO ₂)	
	G	TVOC	
	H	ozone(O ₃)	
	I	oxygen(O ₂)	
	J	ammonia(NH ₃)	
	K	hydrogen sulfide(H ₂ S)	
	L	sulfur dioxide(SO ₂)	
	M	carbon monoxide(CO)	
	N	H ₂ S	
	N	Nitrogen dioxide(NO ₂)	
		CODE	Output
		1	RS485
		2	RJ45 network port
SEM230	A+M	1	Order example