SainSmart Pure Morning Series Quality Monitor

User Manual

Thank you for choosing SainSmart Pure Morning Air Quality Monitor. This detector can detect PM2.5, PM1.0, PM10, formaldehyde, and Carbon Dioxide. It also can measure temperature and humidity. We have 3 models: PM-P5, PM-P6, and PM-P7.

Specification:

Product Name	SainSmart Pure Morning Series
Display	2.8 inch TFT LCD
Working Environment	0~50°C (32~122°F); 20%~85%RH; 1kPa
Sensor Model	G5ST
Measurement Method	PM2.5: laser scattering Formaldehyde: electrochemistry method(optional) CO_2: non-dispersive infrared (NDIR)(optional)
Detection	Automatically

Product Name		SainSmart Pure Morning Series
Index Exceeding Reminde		Index color changes according to the nation's standard
Measuring Range	Formaldehyde	0~2mg/m³; resolution: 0.001mg/m³; accuracy: ±5%F.S
	PM2.5	0~999ug/m³; resolution: 1ug/ m³; accuracy: ±10%
	CO_2	0~5000ppm; resolution: 1ppm; accuracy: ± (50ppm+5%)
	Humidity	25%~90%RH
	Temperature	0~55°C (32~131°F)

Formaldehyde standard: < 0.08 (PM-P6, PM-P7)

Favorable inhabiting environment:
· Temperature: 15-24°C (approx. 59-75°F)
· Humidity: 45-65%RH

PM2.5 index guidance

AQI Category	Index Values	Previous Breakpoints (1999 AQI) (ug/m³, 24-hour average)	Revised Breakpoints (ug/m³, 24-hour average)
Good	0 – 50	0.0 – 15.0	0.0 – 12.0
Moderate	51 – 100	>15.0 – 40	12.1 – 35.4
Unhealthy for Sensitive Groups	101 – 150	>40 – 65	35.5 – 55.4
Unhealthy	151 – 200	>65 – 150	55.5 – 150.4
Very Unhealthy	201 – 300	>150 – 250	150.5 – 250.4
Hazardous	301 – 400	>250 – 350	250.4 – 350.4
Hazardous	401 – 500	>350 - 500	350.5 – 500

CO2 index guidance (PM-P7)

AQI Category	Index Values	Explanation
Good	350 –450	Fresh outdoor air
Moderate	450 – 1000	Good to breathe
Unhealthy	1000–2000	Feel like turbid air, makes people sleepy
Very Unhealthy	2000–5000	May cause headache, sleepiness, cardio-acceleration; unable to concentrate
Hazardous	5000–	May cause anoxia, which leads to permanent brain damage, coma, or even death

Operation Instruction

1. Put the monitor on ventilation for 24 hours after you receive it.
   In order to protect the product during the shipping, we use firm and strong package, which may release formaldehyde in a completely sealed environment and the sensor may exceed its limit. We suggest to put the detector on ventilation for 24 hours after you receive it. Then it will be more accurate in the testing.

2. Charge the monitorvia micro-USB cable and turn on the device.
   It will detect automatically.

3. No need to calibrate the device, it is checked and calibrated before it leaves the factory.

4. In PM-P6 and PM-P7, HCHO detection uses smell sensor, which is sensitive to gas, but cannot recognize and separate HCHO from other type of gas. Please avoid interference of other environment with strong smell, such as cigarette, perfume etc. When these strong smelling gases reach certain concentration, it may be regarded as HCHO as well.

Gas	Concentration(ppm)	HCHO sensor detection (ppm)
Hydrogen sulfide	100	3.7
Ethanol	2000	76.3
Formaldehyde	10	10
Chlorine	10	0.1
Sulfur dioxide	20	0.8
hydrogen	500	5.5
Ammonia	50	0
Methyl chloride	5	0.1
Ethylene oxide	10	0.5
benzene	100	0.1
acetone	100	0.2
Methanol	200	23.9

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