



Air-Quality Detection Module

(Model: ZP07-MP503)

User's Manual

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Zhengzhou Winsen Electronics Technology Co., Ltd

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Zhengzhou Winsen Electronics Technology CO., LTD.

ZP07 Air-Quality Detection Module

Product Description

ZP07 air-quality module adopts flat surface semiconductor gas sensor. The module has good sensitivity to volatile organic gases such as formaldehyde, benzene, carbon monoxide, ammonia, hydrogen, alcohol and smoke of cigarette, essence &etc. The module has been aging, debugged, adjusted and calibrated. So it has good consistency and high sensitivity.



Features

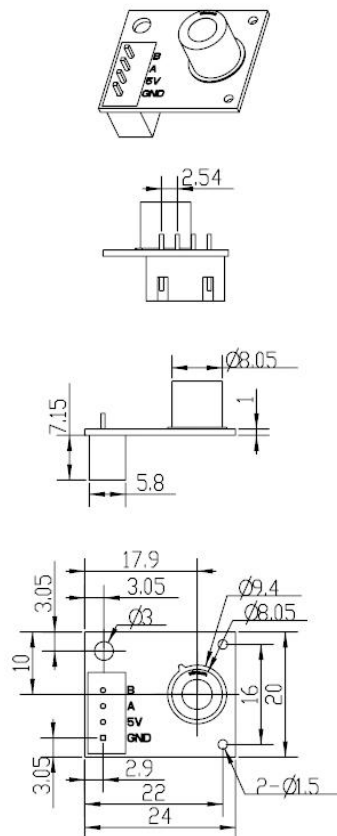
- High sensitivity
- Low power consumption, long life
- Calibrated before shipment
- 10 seconds to 3 minutes with auto-preheating function
- Faulty auto-check, High cost-effective

Application

Air cleaner, fresh-air system, intelligent integrated ceiling, air quality detector, ventilator, air-condition.

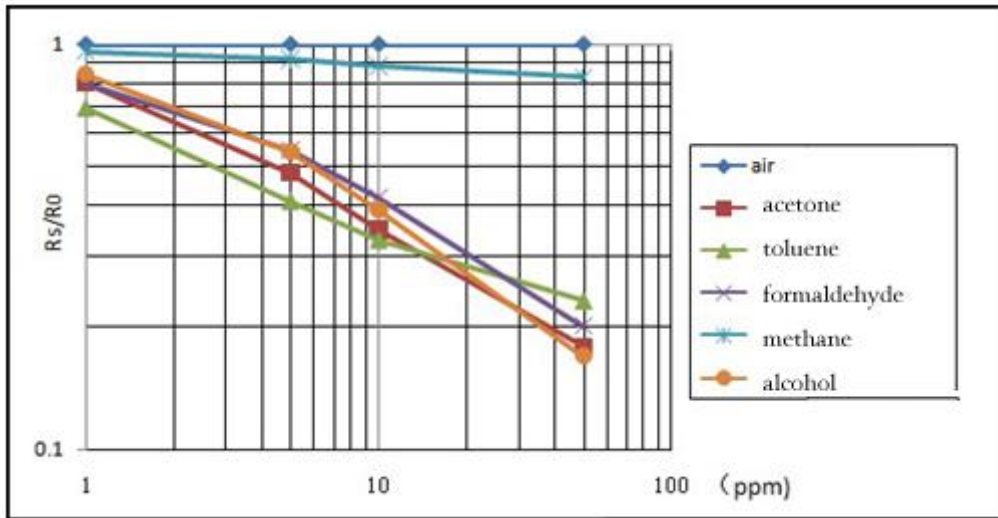
Technical Index **Table 1**

Model No.	ZP07
Detection Gas	formaldehyde, benzene, carbon monoxide, hydrogen, alcohol, ammonia, smoke of cigarette, essence &etc.
Physical Interface	XH2.54-4P terminal sockets
Output Data	0-3 grade pollution signal
Working Voltage	5.0±0.2V DC (No voltage reverse connect protection)
Output	TTL level (200ohm protected resistance inside)
Working Current	≤60mA
Warm-up Time	≤3 min
Response Time	≤20s
Recovery Time	≤60s
Operating Temperature	0~50℃
Operating Humidity	≤95%RH
Storage Temperature	-20~60℃
Storage Humidity	≤60%RH
Size	24×20×16mm(L×W×H)
Weight	≤ 20g
Sensitivity Attenuator	≤1%/year
Life Span	≥5 years



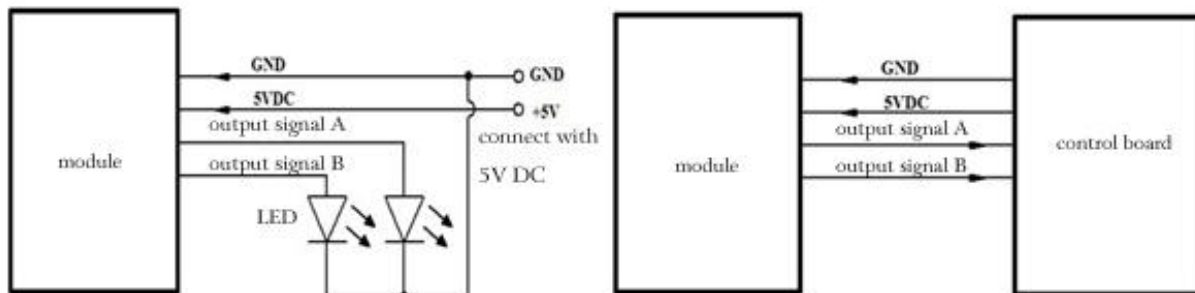
Picture 1:Module structure diagram

Sensitivity Characteristics



Picture 2: Contrast of the sensitivity in different gases

Application of schematic diagram



Picture 3: Module application diagram

Pin definition Table2

Pin	Name	Function
1	GND	Input power -
2	5V	Input power +
3	A	Output signal A
4	B	Output signal B

Output Signal Table3.

Pollution class	A output	B output	Air concentration
0	0V	0V	Clean air
1	0V	+5V	Slight pollution air
2	+5V	0V	Middle pollution air
3	+5V	+5V	Heavy pollution air

Cautions

- Please do not put the module in organic solvent (include silica gel and other cementing compound), painting, medicament, oils and fuels, high concentration gas etc.
- Please do not impact or vibrate the module seriously.
- Please warm up for 5 min before first using.
- Please do not use the module related with personal safety.
- Please do not install the module in the severe convection environment.
- Please do not put in the module in high concentration organic gas for long time.