



Winsen ZP01-MP503 Air-Quality Detection Module User Manual

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ZP01-MP503 Air-Quality Detection Module

Statement

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Thanks for purchasing our product. In order to let customers use it better and reduce the faults caused by misuse, please read the manual carefully and operate it correctly in accordance with the instructions.

If users disobey the terms or remove, disassemble, change the components inside of the sensor, we shall not be responsible for the loss.

The specific such as color, appearance, sizes &etc., please in kind prevail.

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Please keep the manual properly, in order to get help if you have questions during the usage in the future.

Zhengzhou Winsen Electronics Technology CO., LTD.

ZP01-MP503 Air-Quality Detection Module

Product Description

ZP01-MP503 air-quality module adopts flat surface semiconductor gas sensor. The module has very high 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 and good long-term stability

Calibrated before shipment

10 seconds to 3 minutes with auto-preheating function

Faulty auto-check, low power consumption

Long lifespan, high cost-effective

Application

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

Parameters

Sensor	Air quality sensor
Target 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 Data	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	24x20x16mm (LxWxH)
Weight	≤ 20g
Sensitivity Attenuator	≤1%/year

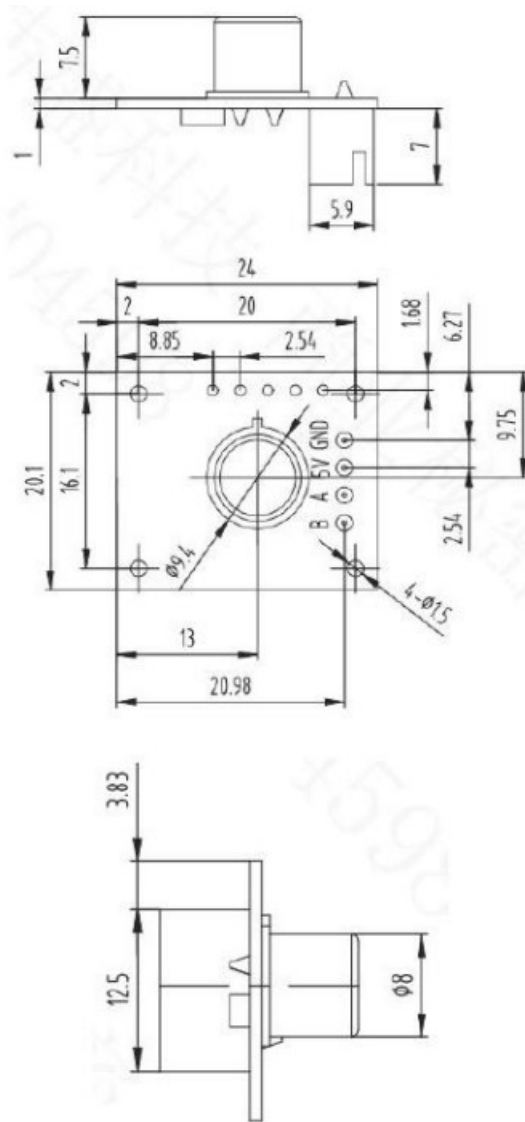


Fig1.Structure(tolerance $\pm 0.2\text{mm}$)

Sensitivity Characteristics

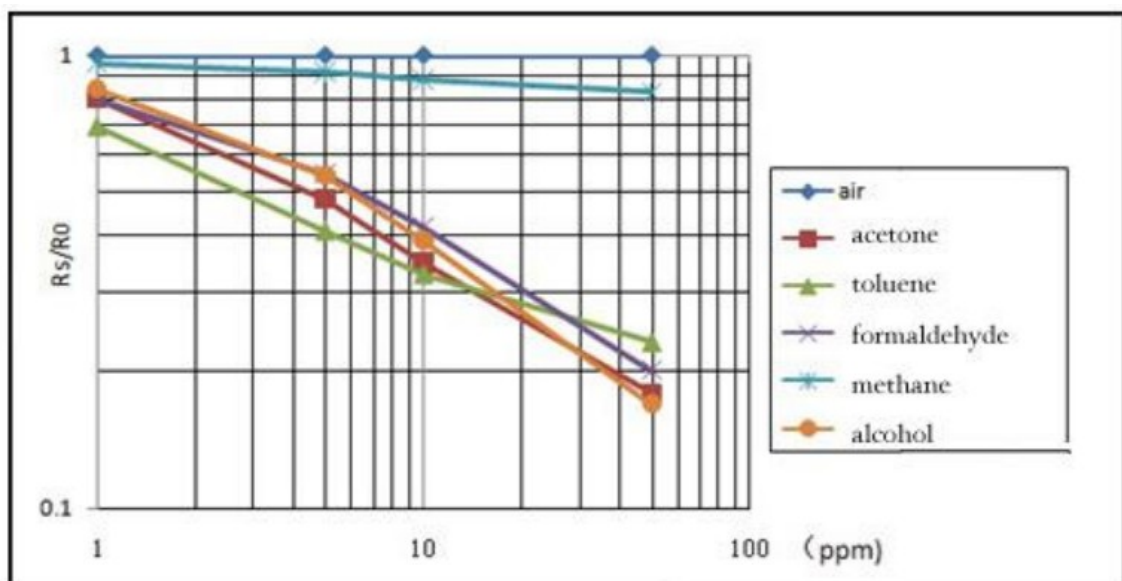
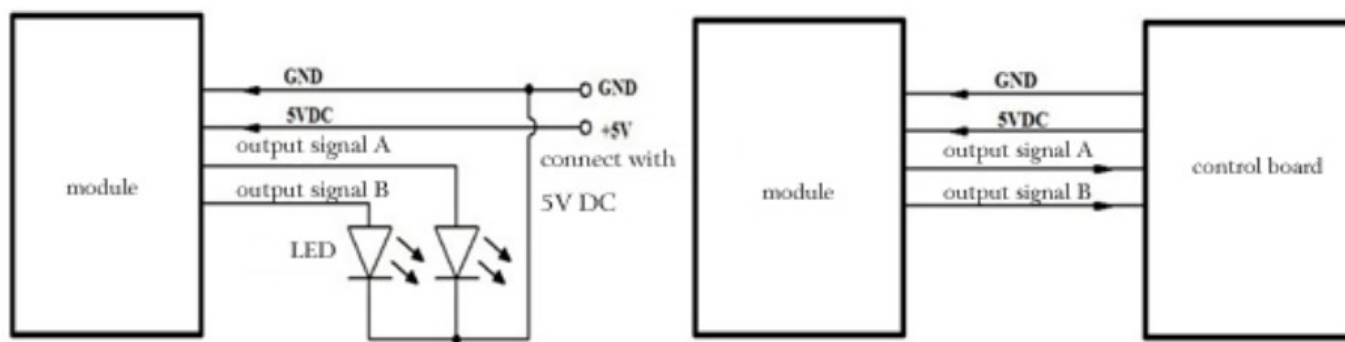


Fig2.Contrast of the sensitivity in different gases

Application of schematic diagram



Terminal definition

Name	Function
GND	Input power –
5V	Input power +
A	Output signal A
B	Output signal B

Output Signal

Grade	Output A	Output B	Pollution Grade
0	0V	0V	Clean
1	0V	5V	Light pollution
2	5V	0V	Moderate pollution
3	5V	5V	Severe pollution

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 use.
- 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.
- Please supply the module with requested voltage as manual strictly, if voltage is higher than 5.5V, the module will be destroyed irreversibly.

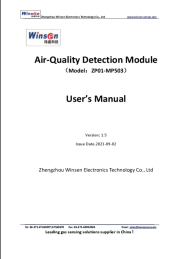
Note: To keep continual product development, we reserve the right to change design features without prior notice.

Leading gas sensing solutions supplier in China!

ZP01-MP503 Air-Quality Detection Module

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Documents / Resources

	<p>Winsen ZP01-MP503 Air-Quality Detection Module [pdf] User Manual ZP01-MP503 Air-Quality Detection Module, ZP01-MP503, Air-Quality Detection Module, Detection Module, Module</p>
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References

- [Winsen Gas Sensor_CO2 Sensor_Air Quality Sensor_Dust Sensor_CO Sensor-Winsen Electronics](#)
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