Air-Quality Detection Module

（Model：ZP07-MP503）

User's Manual

Version:1. 3

Valid from 2018. 08. 14

Zhengzhou Winsen Electronics Technology Co., Ltd

Statement

This manual's copyright belongs to Zhengzhou Winsen Electronics Technology Co., LTD. Without the written permission, any part of this manual shall not be copied, translated, stored in database or retrieval system, also can't spread through electronic, copying, record ways.

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.

We are devoting ourselves to products development and technical innovation, so we reserve the right to improve the products without notice. Please confirm it is the valid version before using this manual. At the same time, users' comments on optimized using way are welcome.

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.

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 good consistency and high sensitivity after aging, debugged, adjusted and calibrated.

Features

High sensitivity, excellent long-term stability

Low power consumption, long life

Calibrated before shipment

10 seconds to 3 minutes with auto-preheating function
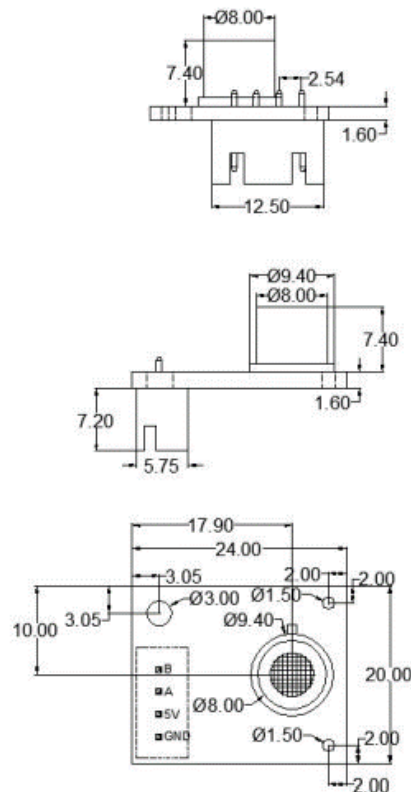
Faulty auto-check, High cost-effective

Application

Air cleaner, fresh-air system, intelligent integrated ceiling, air quality detector, ventilator, air-condition.
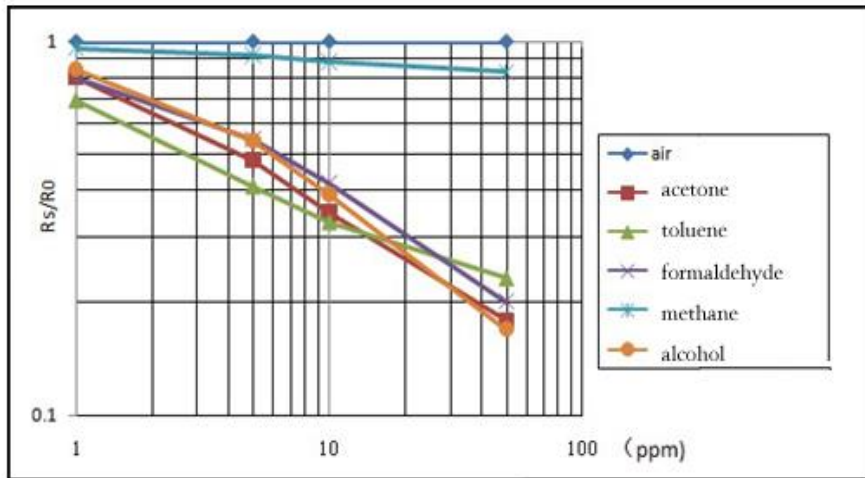
Technical Index   **Table 1**

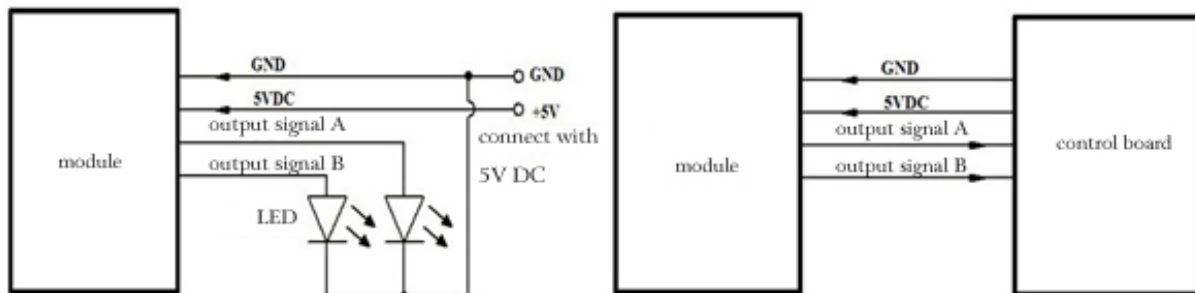|	
Model No.	ZP07
Detection Gas	formaldehyde, benzene, carbon monoxide, hydrogen, alcohol, ammonia, smoke of cigarette, essence &etc.
Physical Interface	XH2.54-4P terminal sockets
Output Data	0-10 grade pollution signal
Working Voltage	5.0±0.2V DC (No voltage reverse connect protection)
Output Data	TTL 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	24×20×16mm(L×W×H)
Weight	≤ 20g
Sensitivity Attenuator	≤1%/year
Life Span	≥5 years

Picture 1:Module structure diagram(Dimension tolerance ±0.2mm)

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 (reserved by factory)

A Output Signal   Table3.

High ms	Low ms	Pollution Class
0	100	0
10	90	1
20	80	2
30	70	3
40	60	4
50	50	5
60	40	6
70	30	7
80	20	8
90	10	9
100	0	10

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.
- Please power the module strictly according to the power supply voltage of the module. If the voltage exceeds 5.5V, the module will be irreversibly damaged.