Air-Quality Detection Module

（Model：ZP07-MP503
Terminal Reverse Welding）

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 with Terminal Reverse Welding

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
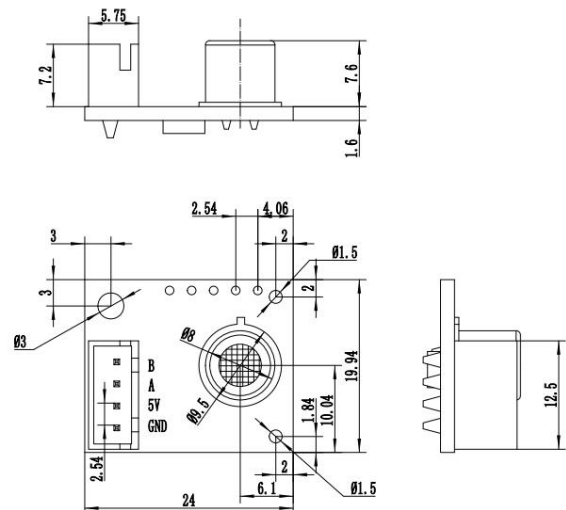
Faulty auto-check, High cost-effective

Application

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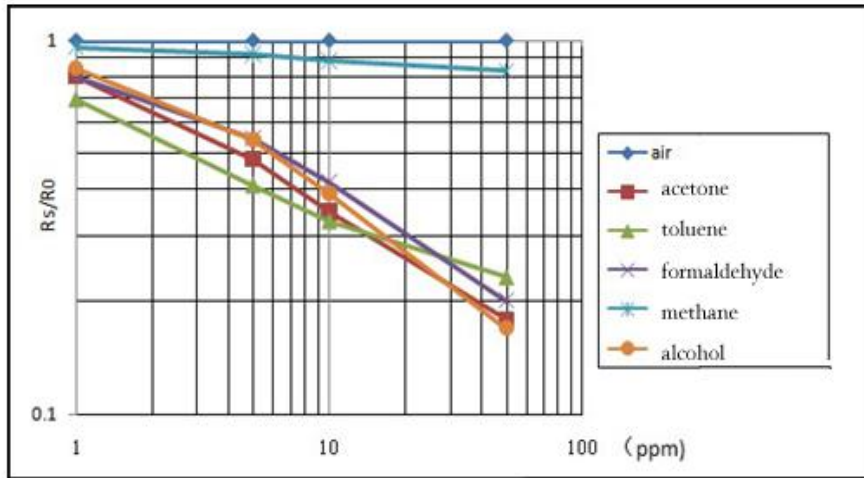
Technical Index   Table 1

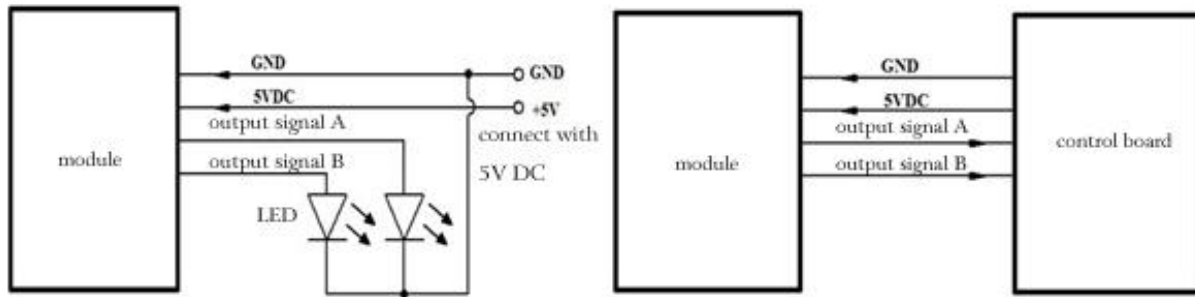| Model No.	ZP07
Detection Gas	formaldehyde, benzene, carbon monoxide, hydrogen, alcohol, ammonia, smoke of cigarette, essence &etc.
Physical Interface	XH2.54-4P terminal sockets
Output Data	0-10 grade pollution signal(0-50ppm alcohol)
Working Voltage	5.0±0.2V DC (No voltage reverse connect protection)
Output Data	TTL level (200ohm protected resistance inside)
Working Current	≤60mA
Warm-up Time	≤3 min
Response Time	Alcohol ≤20s Smoke ≤30s
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 (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.