



Refrigerant gas detection module

(Model: ZP201)

User's Manual

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Zhengzhou Winsen Electronics Technology Co., Ltd

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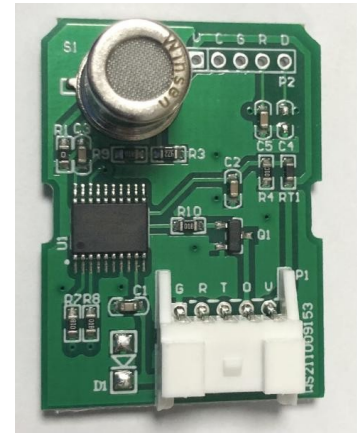
Please keep the manual properly, in order to get help if you have questions during the usage in the future.

Zhengzhou Winsen Electronics Technology CO., LTD.

ZP201 Refrigerant gas detection module

Product Description

ZP201 refrigerant gas detection module adopts advanced multi-layer thick film manufacturing process semiconductor gas sensor element. The gas sensor element contains a filter adsorption layer to reduce the interference of alcohol and other gases, and has extremely high sensitivity to refrigerant gas. The module has been aged, calibrated, with good consistency and high sensitivity.



Features

High sensitivity, fast response, strong anti-interference ability, long life, stable operation, factory calibrated, sensor fault self-diagnosis

Application

Used for air conditioning, refrigeration system refrigerant leak detection.

Parameters

Model	ZP201
Target Gas	Refrigerant gas R32
Output Data	PWM
Working Voltage	5.0±0.2V DC (No voltage reverse connect protection)
Output Data	TTL level (200ohm protected resistance inside)
Working Current	≤80mA
Warm Up Time	≤3 min
Alarm point	5000ppm
Operating Temperature	0~50℃
Operating Humidity	≤95% RH
Storage Temperature	-20~60℃
Storage Humidity	≤60% RH
Size	25×34×14.1mm (L×W×H)
Weight	5g

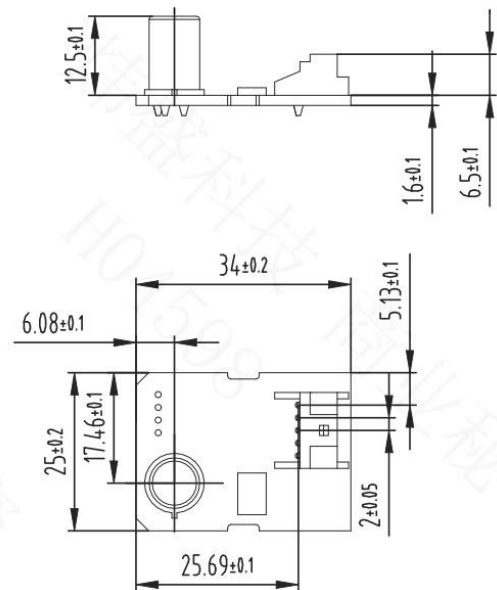


Fig1.Structure(tolerance ±0.2mm)

Terminal definition

Pin	Name	Function
G	GND	Input power -
R	/	/
T	/	/
O	Output	PWM signal output (need to connect external pull-up resistor)
V	5V	Input power +

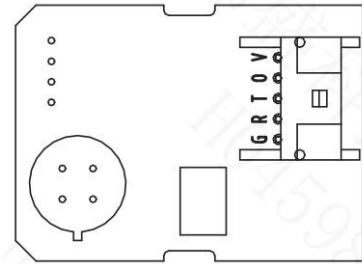


Figure 2: Module Pin Diagram

Definition of output signal

Status	PWM	
	output	
Preheating	H: 75ms	L: 300ms
Work	H: 75ms	L: 300ms
Alarm	H: 225ms	L: 150ms
Fault	H: 300ms	L: 75ms

Note: After the module enters the alarm state, it will keep the alarm state and will not switch to other states. It needs to be powered on again to exit the alarm state.

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.

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