



Refrigerant gas detection module

(Model: ZP201)

User's Manual

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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 , calibration, calibration, with good consistency and high



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

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Model	ZP201	
Target Gas	Refrigerant gas R32	
Output Data	PWM	
Morking Voltage	5.0±0.2V DC (No voltage	
Working Voltage	reverse connect protection)	
Output Data	TTL level (200ohm protected	
Output Data	resistance inside)	
Working Current	≤80mA	
Warm Up Time	≤3 min	
alarm point	5000ppm	
Operating	0° 'E0°C	
Temperature	0∼50°C	
Operating Humidity	≤95%RH	
Storage Temperature	−20~60 °C	
Storage Humidity	≤60%RH	
Size	25×34×14.1mm(L×W×H)	
Weight	5g	

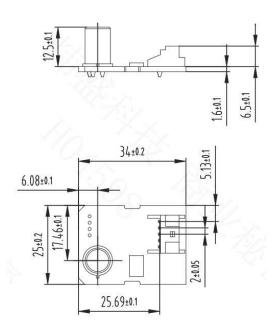


Fig1.Structure(tolerance ± 0.2 mm)

Terminal definition

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

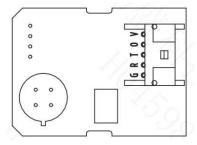


Figure 2: Module Pin Diagram

Definition of output signal

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