



IoT World, Sensing Leads the Way

Refrigerant Sensor Solutions

Semiconductor and NDIR infrared refrigerant sensors are used for qualitative and quantitative detection of R32, R290, R454B, R410A, R134A, etc. in different application scenarios. The sensors are designed with function of self-diagnosis, meeting standard of UL60335-2-40:2022. With the sensors, refrigerant gas leakage alarm and automatic switch-off can be realized. More different functions can be equipped according to the needs of manufacturers of air conditioner, heat pump, and refrigerant detection instrument.



R&D, Production, Sales and Solutions of Sensing Products

30+ YEARS OF EXPERIENCE

R&D, manufacture and sales of sensors, covering an area of 30,000m²

INTERNATIONAL MARKET

60M+ PCS delivery yearly to 100+ countries & regions

R&D STRENGTH

100+ patents of sensors, 100+ team members self-built lab for continuous innovation



EXCELLENT QUALITY

Complete and strict process flow from raw materials to outgoing, rigid quality control

AUTOMATIC PRODUCTION

500+ sets of equipment for development manufacturing and test

ONE-STOP SERVICE

Professional consultation, fast delivery 24 hours after-sales support

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Winsen Zhengzhou



Winsen Shanghai

Create Value for Customers, Create Win-win Future with Customers



Technical Specifications

- Semiconductor Gas Sensor
- High Sensitivity to R290
- Good Consistency
- Anti-interference Filter Layer
- Aged & Calibrated
- Long Life Span

Model	ZP211	Working voltage	5.0±0.2V DC	Working temperature	-20~55°C
Target gas	Refrigerants R290	Working current	≤80mA	Working humidity	≤95%RH
Physical interface	S05B-PASK-2	Warm-up time	3min	Storage temperature	-20~60°C
Output signal	PWM	Recover time	≤120s	Storage humidity	≤60%RH
Output data	/	Alarm point	2000ppm	Initial alarm accuracy	1340~2660ppm
Size (L×W×H)	25×34×14.1mm	Weight	5g	Life span	10 years



Technical Specifications

- Semiconductor Gas Sensor
- High Sensitivity to R32
- Good Consistency
- Anti-interference Filter Layer
- Aged & Calibrated
- Long Life Span

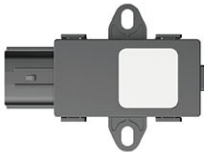
Model	ZP201	Working voltage	5.0+0.2V DC	Working temperature	20~55°C
Target gas	Refrigerants R32	Working current	≤80mA	Working humidity	≤95%RH
Physical interface	S05B-PASK-2	Warm-up time	3min	Storage temperature	-25~60°C
Output signal	PWM	Recover time	≤120S	Storage humidity	≤60%RH
Output data	TTL level	Alarm point	5000ppm	Initial alarm accuracy	3000~7000ppm
Size (L×W×H)	25×34×14.1mm	Weight	5g	Life span	10 years



Technical Specifications

- Smart NDIR Gas Sensor
- Good Selectivity
- Non-oxygen Dependent
- Sophisticated Circuit Design
- Easy to Use
- Long Life Span

Model	MH-Z1542B-R32	Detection range	0~5.00% Vol	Resolution	1% LFL(R32)
Target gas	Refrigerants R32	Working voltage	3.6-5V DC	Working temperature	-20~60 °C
Interface level	3.0V	Average current	<85mA	Working humidity	0-95%RH
Output signal	UART	Warm-up time	3min	Response time	T25 < 7 s
Size (L×W×H)	32.9×22.3×11.9mm	Weight	35g	Life span	> 15 years



Technical Specifications

- Smart NDIR Gas Module
- High Sensitivity
- High Resolution & Fast Response
- Temperature Compensation
- Excellent Linear Output
- Anti-vapor Interference

Model	ZRT510	Detection range	0~50% LFL	Resolution	0.1% LFL
Target gas	Refrigerants R454B	Working voltage	5±0.1 V DC	Working temperature	-40~85 °C
Interface mode	XHQ-4	Average current	< 70 mA	Working humidity	0~100% RH
Output signal	RS485	Warm-up time	<30s	Response time	<10s
Size (L×W×H)	75.4×57×21.5mm	Weight	32.5g	Life span	> 15 years

Application

