



Infrared Refrigerant Sensor Module (Model: ZRT510)

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ISO9001 Certificated Company

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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.

ZRT510 Refrigerant Sensor Module

Profile

ZRT510 refrigerant sensor module is a smart infrared type sensor module, using non-dispersive infrared (NDIR) principle to detect the existence of refrigerant, with good selectivity and non-oxygen dependent. It is a compact high performance sensor module made by combining mature infrared gas detection technology with micro machining and sophisticated circuit design. It is easy to use with excellent performance.



Main Features

- *High sensitivity, high resolution, fast response
- *R485 output
- *Temperate compensation, excellent linear output, good stability, long lifespan
- *Anti-water vapor interference, anti-poisoning, direct replacement for catalytic sensors

Main applications

- *HVAC
- *Industrial process and safety monitoring

Main parameters

Table1.

Model No.	ZRT510
Detection Gas	R454B
Working voltage	5.0-14VDC (input $\le 50mA$)
Average current	< 70mA
Peak current	< 300mA
Interface mode	XHQ-4
Output signal	RS485
Data update	1s
Preheat time	< 30s
Response Time	Under 25% LFL environment, the time reaching alarm point (7% LFL) is less than 10 seconds
Working T&H	40~95 °C 0~100% RH
Storage T&H	40~95 °C 0~100% RH
Sizes	75.4*57*21.5 mm (without connecting cable)
Weight	32.5g (without connecting cable)
Lifespan	> 15 years
Certification	UL Version 4

Resolution Table2.

Detection Gas	Detection Range	Resolution	Accuracy
R454B	0~50% LFL	0.1% LFL	±2.5%LFL

Dimensions

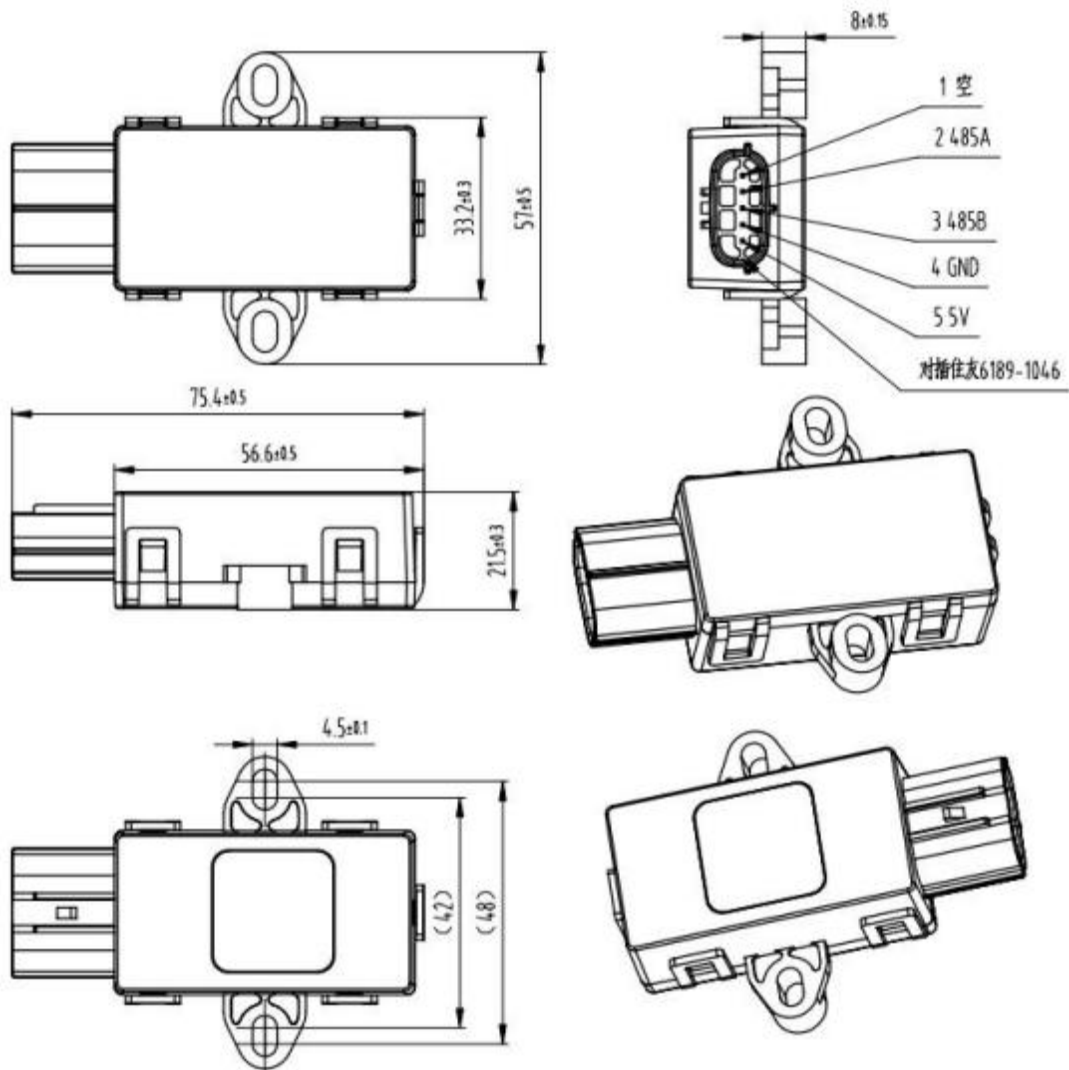


Fig1.sensor module size

Pin Definition: Table3.

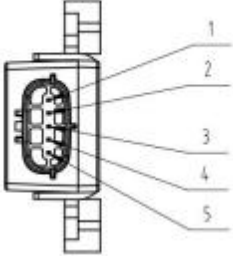
Pin	Pin Definition	
Pin 1	Reserved	
Pin 2	RS485-A	
Pin 3	RS485-B	
Pin4	GND	
Pin 5	VCC	

Fig2. Sensor Module Pins

Notes

- Please use the sensor module within requested and stable voltage. It may be damaged if too high voltage or not work properly if too low voltage.
- Please do not use the product in high T&H, strong electromagnetic or dusty environment for long time.
- Please do not impact or vibrate the module seriously.
- Please do not install the module in the severe convection environment.