



# Infrared Refrigerant(R32) Sensor Module (Model: MH-Z1542B-R32)

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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.**

## MH-Z1542B-R32 Refrigerant Sensor Module

### Profile

MH-Z1542B refrigerant (R32) sensor is a smart infrared type sensor, using non-dispersive infrared (NDIR) principle to detect the existence of refrigerant, with good selectivity and non-oxygen dependent. It is developed by the tight integration of mature infrared absorbing gas detection technology, precision optical circuit design and superior circuit design. It is a compact high performance sensor made by combining mature infrared gas detection technology with micro machining and sophisticated circuit design. It is easy to use and can be directly to replace the catalytic type sensor.



### Main Features

- \*High sensitivity, high resolution, fast response
- \*UART 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.	MH-Z1542B-R32
Detection Gas	Refrigerant
Working voltage	3.6~5V DC
Average current	< 85mA
Detection Range	0~5.00% Vol
Interface level	3.0 V
Output signal	UART
Preheat time	3 min
Response Time	T <sub>25</sub> < 7 s
Working temperature	-20 ~ 60 °C
Working humidity	0 ~ 95% RH (No condensation)
Sizes	32.9x22.3x11.9mm
Weight	35 g
Lifespan	> 15 years

### Resolution Table2.

Detection Gas	Formula	Detection Range	Resolution	Accuracy
R32	CH <sub>2</sub> F <sub>2</sub>	0~50% LFL	1% LFL	± 3.75%F.S.

**Dimensions**

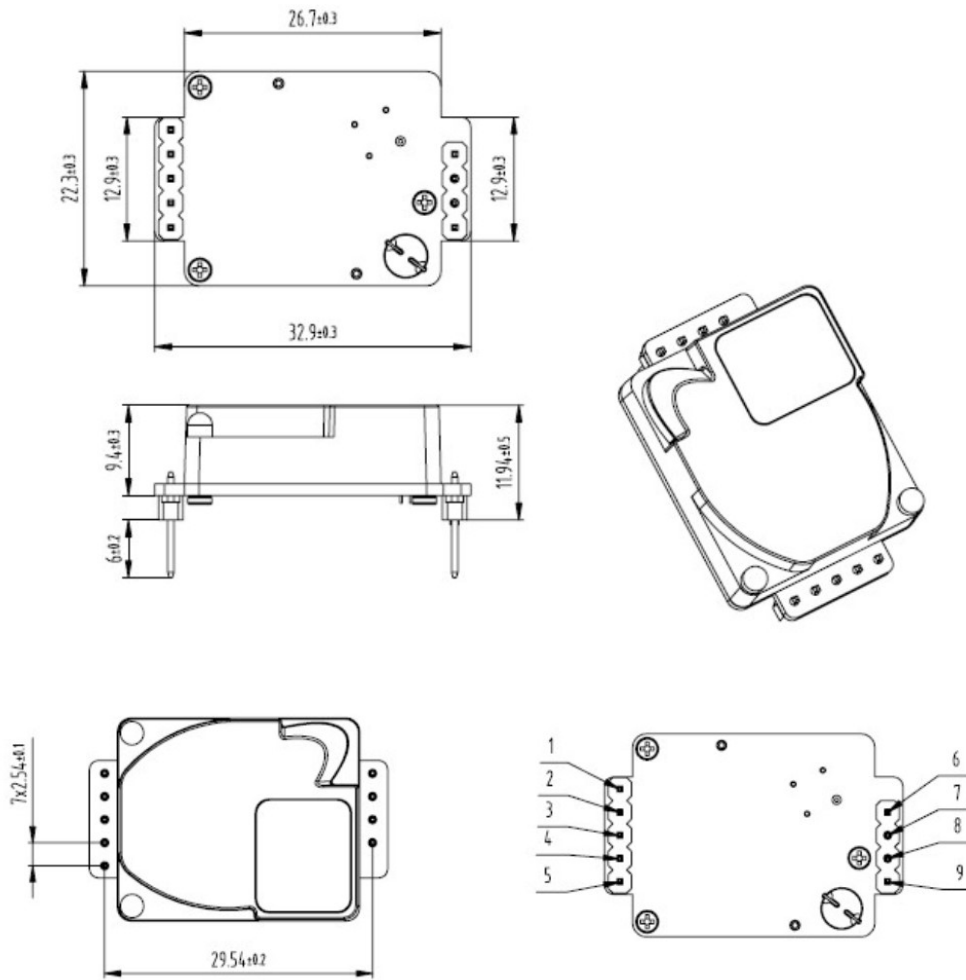


Fig1.sensor size

**Pin Definition:** Table3.

Pin	Pin Definition
Pin 1, 2, 5, 6, 7	Reserved
Pin 3	UART(TXD) 0~3.3V data output
Pin 4	UART(RXD) 0~3.3V data input
Pin 8	GND
Pin 9	Vin voltage input

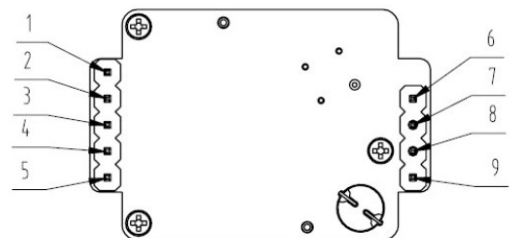


Fig2. Sensor Pins

**Notes**

- The product should be calibrated termly, the suggested period is no longer than 6 months.
- Do not use the product in high dusty environment for long time.
- The product should be away from heat source and avoid direct sunlight or other heat radiation.
- The product should be used within requested voltage range

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