Carbon dioxide Gas Sensor

(Model: MH-V1512A-LGC)

User's Manual

(Version 1.0)
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Zhengzhou Winsen Electronics Technology Co., Ltd

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Zhengzhou Winsen Electronics Technology CO., LTD

MH-V1512A-LGC CO_2 Gas Sensor

Profile

MH-V1512A-LGC CO_2 gas sensor (hereinafter referred to as sensor) is a common type, small size sensor, using non-dispersive infrared (NDIR) principle to detect the existence of CO2 in the air, with good selectivity, non-oxygen dependent and long life. Built-in temperature compensation, and it has LIN output. It is developed by the tight integration of mature infrared absorbing gas detection technology, precision optical circuit design and superior circuit design.



Features

*Chamber is electroplated, water-proof and anti-corrosion
*High sensitivity, low power consumption
*Good stability
*Temperature compensation, excellent linear output
*LIN output
*Long lifespan
*Anti-water vapor interference, anti-poisoning

Mainly application

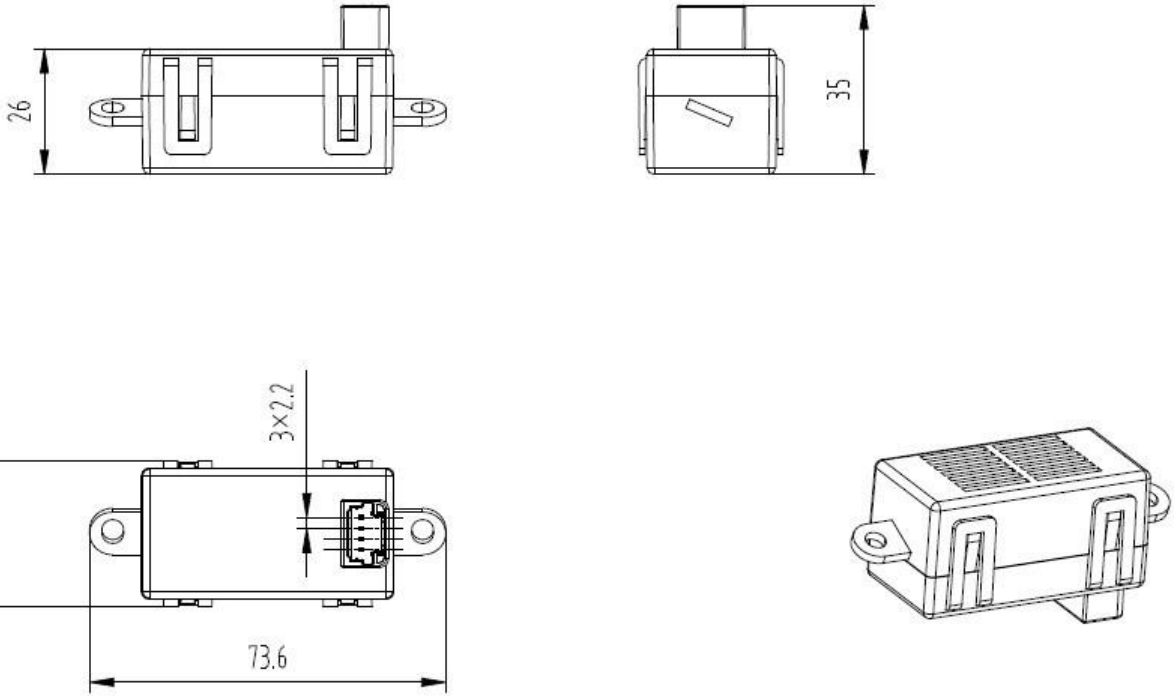
*Automotive air conditioning system

Tab. 1 Technical parameter

Model	MH-V1512A-LGC
Detection Gas	CO2
Working voltage	12V DC
Average current	< 40mA (@12V power supply)
Peak current	125mA (@12V power supply)
Interface level	12 V
Detection Range	400~10000ppm(optional) (Tab2. for details)
Output signal	LIN
Preheat time	20 s
Response Time	T_{90} < 60 s
Working temperature	-40 ~ 85 ℃
Working humidity	0 ~ 95% RH (No condensation)
Storage temperature	-40~85 ℃
Weight	27 g
Lifespan	> 10 years

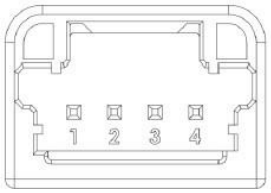
Tab. 2 Detection range and accuracy				
Detection Gas	Formula	Detection Range	Resolution	Accuracy
Carbon Dioxide	CO2	400-5000ppm	1ppm	±75ppm/±10% reading(-5℃~45℃)
		400-10000ppm		±200ppm/±20% reading (-40~-5℃,45℃~85℃)

Product External Dimensional Drawing (Unit: MM)



Pin Definition:

Tab.3	
Pin Name	Pin Description
Pin 1	12V
Pin 2	LIN
Pin 3, 4	GND



Pin Definition Diagram

Notes

- Please avoid the pressure of its gilded plastic chamber from any direction, during welding, installation, and use.
- When placed in small space, the space should be well ventilated, especially for diffusion window.
- The module should be away from heat, and avoid direct sunlight or other heat radiation.
- The module should be calibrated termly, the suggested period is no longer than 6 months.
- Do not use the sensor in the high dusty environment for long time.

Zhengzhou Winsen Electronics Technology Co., Ltd
Add: No.299, Jinsuo Road, National Hi-Tech Zone, Zhengzhou 450001 China
Tel: +86-371-67169097/67169670
Fax: +86-371-60932988
E-mail: sales@winsensor.com
Website: www.winsen-sensor.com