

CDM7162-C00 Carbon Dioxide Sensor Module

characteristic : _____

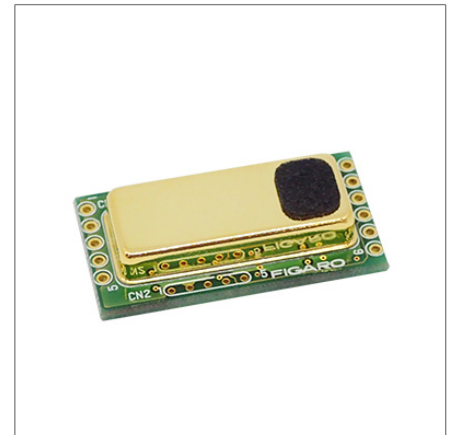
- * small volume
- :: Low power consumption
- :: High precision
- * Single light source dual wavelength mode

apply : _____

- :: Indoor air quality control
- Fresh air exchange
- * air-conditioning
- * Automatic opening of fans and Windows

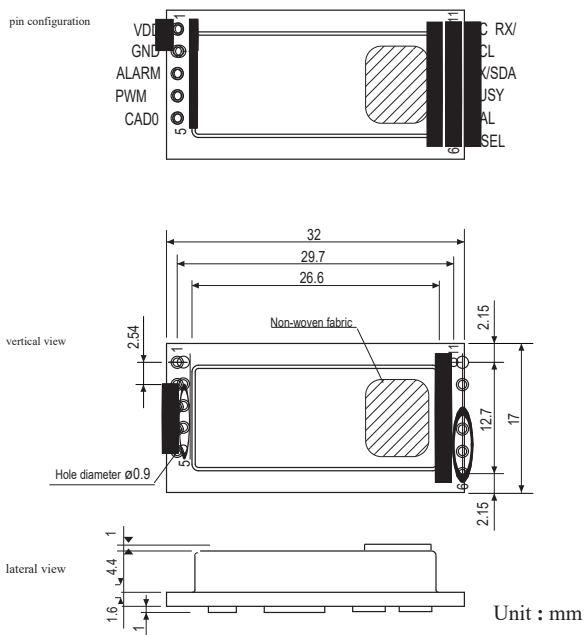
CDM7162* is a high-performance non-dispersive infrared (NDIR) carbon dioxide(CO₂) sensor module with small size, low power consumption, and high accuracy. The module is equipped with a pair of photoelectric detectors and uses unique signal processing technology to achieve long-term stable output. Each module features dual digital interfaces: UART (Asynchronous Receiver-Transmitter) and I²C (Synchronous Serial Interface), allowing independent calibration. The CDM7162 module boasts a straightforward design that seamlessly integrates with customer products, making it ideal for energy-efficient ventilation control systems and indoor climate management solutions.

* CDM (Carbon Dioxide sensor Module)



size : _____

pin configuration : _____



Pin number	name	function
1	VDD	supply voltage
2	GND	Utility grounding
3	ALARM	Alarm outputs
4	PWM	Pulse width modulation output
5	CAD0	I ² C Slave Address Selection Input (Internal Pull-up)
6	MSEL	Communication mode signal input I ² C/UART (internal pull up)
7	CAL	Air adjustment/zero point adjustment input (internal pull up)
8	BUSY	BUSY signal output
9	Tx/SDA	UART Tx output/I ² C SDA input/output
10	Rx/SCL	UART Rx/ I ² C SCL input
11	NC	connectionless

specifications :

name	Carbon dioxide (CO ₂) sensor module
model	CDM7162-C00
Scope of detection	360~5,000ppm CO₂
operational principle	Non-dispersive infrared (NDIR)
supply voltage	3.3±0.3V or 5.0±0.5V DC
power dissipation	75mA peak, 25mA average (@5V DC)
accuracy (※)	± (50ppm+ concentration output value's 3%)
Pressure-dependent properties	Each kilopascal is about 1% of the concentration output value
Response time (T90)	90 Seconds (expanded)
preheating time	> 5 minutes
going	0~50. C / 0~85%RH (non-condensation)
maintaining requirement	-30~60. C (tentative)/ 0~85%RH (non-condensation)
Serial communication interface	UART/I ² C (gas concentration output 360~65,535ppm)
Testing intervals	2 second
PWM (pulse width modulation) output (1kHz)	0~100% (0~5,000ppm) CMOS output
Alarm outputs	CMOS output (high over 1,000ppm, low below 900ppm)
size	32 x 17 x 8.0 (mm)
weight	About 3.0g

(※) The accuracy described here is for a detection range of 360 to 5,000ppm and an input voltage of 3.3±0.3V Or 5.0±0.5V as a prerequisite.

In addition, this is the accuracy value at the time of factory delivery, not the guaranteed accuracy thereafter.

Note: CDM7162 is an electrostatic-sensitive product. This device does not include anti-static components such as Zener diodes or variable resistors. During assembly, it is recommended to use anti-static protection equipment. Additionally, before integrating this component into final products, implement static protection measures or other anti-static solutions in the intended application.

Important Notice: This product is specifically designed for indoor air quality control systems, including outdoor air circulation variable air volume systems and automated ventilation systems. If you intend to use this product for applications beyond those specified, please consult Feijia Luo prior to implementation. The design and manufacturing of this product do not consider its use as a critical component of life support systems. Feijia Luo shall not be held liable for any personal injury or property damage resulting from malfunctions when used for purposes other than those indicated.

The typical characteristics of the sensor are shown in this product specification. The actual characteristics of the sensor vary from product to product. Please refer to the specifications for each sensor.

When purchasing the sensor, please scan the QR code to confirm the limited warranty.



https://www.figaro.co.jp/cn/pdf/Limited_Warranty_cn.pdf

Figaro Technology Research Co., LTD
Osaka City, Kifune City, Shipyards West 1-5-11
Zip code: 562-8505
Tel: + 81727282044
URL: www.figaro.co.jp/cn/