AG-2-CH4-MA2611(D)

Features

- ✓ High selectivity to methane
- ✓ Long life and low cost
- ✓ Programmable Alarm output
- ✓ USART digital output
- ✓ pre-calibrated before leaving the factory

Product Description

The AG-2-CH4-MA2611(D) is an embedded type module equipped with the Figaro's semiconductor Sensor TGS2611-E00, the module has been pre-calibrated before leaving the factory and it includes a specialized filter that reduces interference from gases like alcohol, ensuring a selective response to methane (CH_4). It utilizes digital communication through a USART and a programmable Alarm output interface for gas concentration readings. This allows users to easily and quickly integrate the module into residential gas leakage alarm systems, such as household natural gas detectors.

Technical Specification

Item	Specification
Model Number	AG-2-CH4-MA2611(D)
Target Gases	CH_4
Sensing Principle	Semiconductor
Detection Range	0 ~ 20% LEL
Measurement Error	< ±2.5% LEL (4000ppm~5000ppm) < ±5.0% LEL FS
Response time(T90)	≤ 30 s
Output Signal	USART Programmable Alarm output
Resolution USART	1 ppm
Operating Voltage	5V±0.2V DC
Power consumption	≤ 0.5 W

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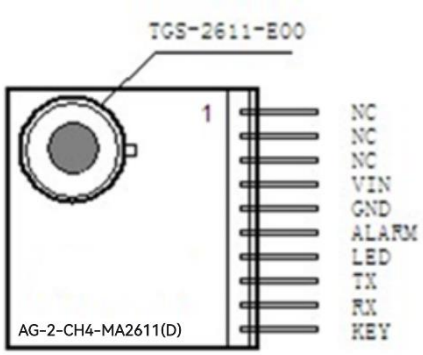
Technical Specification

Humidity Range	20% ~ 95%RH
Pressure Range	1 ± 0.1 atm
Temperature Range	-10 ~ 55°C (Operating) -25 ~ 60°C (Storage)
Warm up time	≥ 5 min
Electrical interface	2.54 mm pitch 1-row pin header
Size	L*W*H=27.2mm*22.8mm*17mm (TGS2611-E00)

Pin Configuration



Pin	Name	Functional Description
1	NC	
2	NC	
3	NC	
4	+5V	Power supply, 5V DC
5	GND	Signal ground
6	Alarm	Alarm output
7	LED	States display
8	TX	transmitter
9	RX	receiver
10	KEY	Address Setting Button

Note:

1) After being powered-on, the module needs approximate 5 minutes to warm up. Once the process is complete, the module enters into normal monitoring state. (Standard test conditions: 7 days; Methane in air at 20±2˚C, 65±5%RH)
2) **USART Output:** Baud rate: 9600, data bits: 8bit, stop bits: 1bits, parity bit: no parity
For detailed information on sensor operation, please refer to the application manual.
3) An **Alarm output** signal is automatically triggered on the Alarm terminal when the gas concentration reaches a predetermined level. This feature eliminates the need for additional processing, which helps to minimize development and production costs. As a result, users can create residential natural gas alarms more easily and efficiently. Additionally, alarm manufacturers have the option to program different alarm thresholds through communication.

Application Notes

1. The module is not protected against reverse polarity or ESD (Electrostatic Discharge). Users should ensure correct power connection and implement appropriate ESD protection measures when using the module.
2. Exceeding the module power supply voltage range may cause damage to the module or the module may fail to operate properly.
3. Please follow precautions specific to the sensor when using the module.
4. For detailed information on sensor operation, please refer to the application manual.