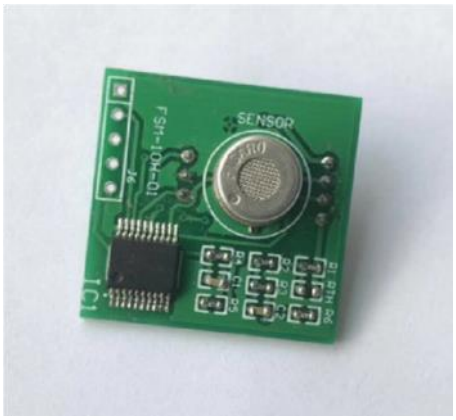
AG-2-H2-M2610(D)



Features

- ✓ Long life and low cost
- ✓ USART or PWM digital output
- ✓ pre-calibrated before leaving the factory

Product Description

The AG-2-H2-MA2610(D) is an embedded type module equipped with the Figaro's semiconductor Sensor TGS2610-D00, capable of detecting Hydrogen (H_2) in diverse environments. The module has been pre-calibrated before leaving the factory and has good durability, stability, and anti-poisoning. It includes a built-in temperature sensor for data correction via software algorithms to minimize environmental impact on measurement accuracy. It utilizes digital communication through a USART or PWM digital output for gas concentration readings, which allows users to easily and quickly integrate the module into various systems. This makes it suitable for both residential and industrial gas detection applications.

Technical Specification

Item	Specification
Model Number	AG-2-H2-M2610(D)
Target Gases	Hydrogen
Sensing Principle	Semiconductor
Detection Range	0 ~ 4,000 ppm
Measurement Error	< ±300ppm
Operating Voltage	5V±0.2V DC
Output Signal	USART PWM (2kHz)
Temperature Range	-40 ~ 70°C
Humidity Range	20% -95%RH
Pressure Range	1 ± 0.1 atm
Storage Temperature	-10 ~ 80°C
Size	L*W*H=26mm*27mm*22mm (TGS2610-D)

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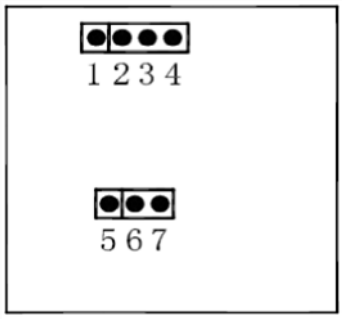
Technical Specification

Item	Specification
Power consumption	≤ 1.5 W
Response time(T90)	≤ 30 second
Warm up time	4 minutes
Resolution USART	1 ppm
Resolution PWM	$V_O = V \times DUTY^2$
Electrical interface	2.0 mm pitch 2-row pin header

Pin Configuration



Pin	Name	Functional Description
1	NC	
2	NC	
3	SDA	USART output
4	+5V	Power supply, 5V DC
5	PWM	PWM output
6	GND	Signal ground
7	FAT	Fault signal output pin

Note:

1) After being powered-on, the module needs approximate 4 minutes to warm up. Once the process is complete, the module enters into normal monitoring state.
2) PWM Output (Frequency: 2kHz): ***V_O*** is the effective output voltage, ***V*** is the input voltage, and ***DUTY*** is the duty cycle.
3) USART Digital Output: The module sends a set of data every 100ms; the concentration data is represented in 2 bytes (checksum not yet added, can be modified according to user requirements).

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.