# **Apollosense**®

## AG-2-LPG-M2610(D)

### **Features**

- ✓ High Sensitivity to LP gases
- ✓ Long life and cost-effective
- ✓ UART digital output
- ✓ pre-calibrated before leaving the factory



## **Product Description**

The AG-2-LPG-M2610(D) is an embedded type module equipped with the Figaro's TGS26 series semiconductor Sensor, capable of detecting LP and its component gases (e.g. propane and butane). The module has been pre-calibrated before leaving the factory and has good durability, stability, and anti-poisoning. It utilizes digital communication through a UART bus output for gas concentration readings, which makes it suitable for Residential / Portable LP gas detectors.

## **Technical Specification**

Item	Specification
Model Number	AG-2-LPG-M2610(D)
Target Gases	LP and its component
	gases (e.g. propane and butane)
Sensing Principle	Semiconductor
Detection Range	1 ~ 25% LEL
Resolution	1 ppm
Measurement Error	< ±3% LEL
Operating Voltage	5V±0.1V DC
Power Consumption	≤1.5W
Output Signal	UART (+3.3V TTL)
Temperature Range	-10 - 55°C
Humidity Range	20% -95%RH
Pressure Range	1 ± 0.1 atm
Storage Temperature	-10 - 40°C
Size	L*W*H=41mm*27mm*22mm
	(TGS2610-D)
Expected Life	See the corresponding sensor
	data sheet for details.

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## Application

- Residential LP gas detectors
- Residential LP gas alarms
- Portable LP gas detectors

## **Product Appearance and Dimensions**



## **Pin Configuration**

The module reserves a 3P + 4P pin header with a pitch of 2.54 mm as the electrical interface. Pin descriptions are as follows:

Pin Number	Name	Functional Description
1	VIN	Power supply, 5 - 12V DC
2	GND	Signal ground
3	RXD	Serial port input, Connected to the host TXD
4	TXD	Serial port output, Connected to the host RXD
5 V	VOT	Module onboard 3.0V reference power output
	VOI	(maximum output capacity 100mA)
6	FAT	Fault signal output pin (reserved)
7	ALM	Alarm signal output pin (reserved)

Note:

- After being powered-on, the module needs approximate 3 minutes to warm up. Once the process is complete, the module enters into normal monitoring state.
- 2) After being powered-on, the module's serial port outputs a frame of data containing status and concentration values every 1 second.

#### **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.
- 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.

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