AG-3-CHX-CHA3(D)

Features

- ✓ Digital output UART/TTL/ RS232
- ✓ pre-calibrated before leaving the factory

Product Description

The AG-3-CHX-CHA3(D) is an embedded type module equipped with the Alphasense CH-A3 Catalytic Sensor, capable of detecting combustible gases such as methane (CH_4), LP gas, and 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 utilizes digital communication through a UART bus output for gas concentration readings, which allows users to easily and quickly integrate the module into various systems. This makes it suitable for industrial gas detection applications.

Technical Specification

Item	Specification
Model Number	AG-3-CHX-CHA3(D)
Target Gases	CH_4, C_3H_8, H_2 etc.
Sensing Principle	Catalytic
Detection Range	0-100% LEL
Resolution	1% LEL
Measurement Error	< ±5% FS
Operating Voltage	5-12V DC
Operating Current	≤ 100mA@5V
Output Signal	UART (+3.0V TTL)
Temperature Range	-40 - 70°C
Humidity Range	0% -90%RH
Pressure Range	900.0 to 1120 mbar
Storage Temperature	10 - 40°C
Size	L*W*H=49mm*34mm*26mm
Expected Life	≥ 2years

Application

- LNG and LPG alarms
- detectors for LNG and LPG

Product Appearance and Dimensions
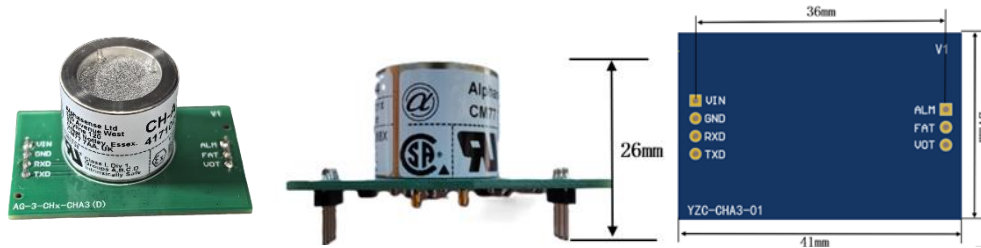
Pin Configuration

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	VOT	Module onboard 3.0V reference power output (maximum output capacity 100mA)
6	FAT	Fault signal output pin (reserved)
7	ALM	Alarm signal output pin (reserved)

Note:
1) 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.