KSCH4 Methane sensor manual

Introduction

KSCH4 is a based on NDIR non-dispersed infrared absorption principle of gas detection module, adopt the dispersive air inlet. KSCH4 using porous inner light tube and casing outside the card slot, not only ensure the characteristics of air convection diffusion speed, and strong and durable, easy to install.

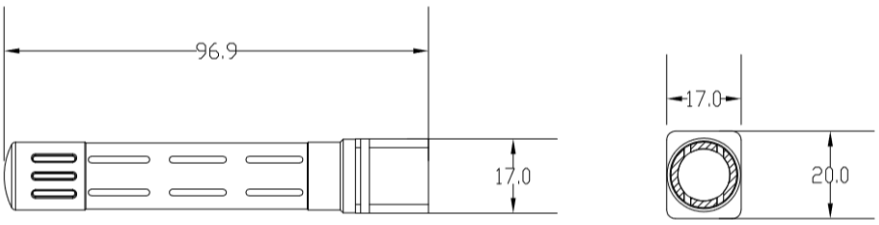
KSCH4 uses an imported light source and a dual-channel detector. Has the very good selectivity, no oxygen dependence, long life characteristics.

KSCH4 with UART, IIC digital output and analog output voltage (or the PWM frequency output mode), facilitating the clients to choose application; KSCH4 provide zero calibration, calibration and sensitivity of clean air relative zero calibration command, and to provide customers a manual clean air relative zero calibration MCDL pin, convenient to customers in the use of the free flow of clean outdoor air relative zero calibration of sensor module.

Feature

- Advanced circuit design, high accuracy, stable performance
- The shell is light and easy to install on site
- Rich interface, convenient for customer choice
- Provide zero point calibration, sensitivity calibration and clean air calibration

Dimension



Application

- Petrochemical industry
- Biogas monitoring
- Thermal power plant
- Pipe gallery
- Gas pipes, etc

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Technical Specifications

Parameters	Technical Indicators
Sensor type	Infrared Principle
Measurement accuracy	± (500PPM+5%reading)
Measurement range	0 ~ 50000PPM can be customized
Resolution	100PPM
Repeatability	2.5%
Response time (T90)	<30s
Calibration	Standard Calibration
Signal output	Serial IIC PWM analog output (0.4-2V)
Power supply source	5VDC±5%
Current range	150mA
Work environment	Temperature -20... + 50 ℃ Humidity 0... 95%RH, no condensation
Storage environment	Temperature -20... + 80 ℃ Humidity 0... 95%RH, no condensation

Installation

Installation instructions:

1.Wiring according to the electrical wiring diagram.

2. After confirming that the wiring is correct, please install it according to the on-site conditions.

3.After the installation is completed, please carry out the power test in the specified power supply range.

Wiring

Terminal definition			
Pin	Function	Pin	Function
1	Power supply positive electrode	1	I2C- SCL
2	Power negative electrode	2	I2C- SDA
3	Serial port reception	3	PWM/DA
4	Serial port sending	4	MCDL

Note: MCDL - Clean Air relative to calibration function pin

Precautions

- When the module is cold start, the warm-up time is not less than 2 minutes.
- Sensors should be calibrated regularly, recommended no more than 3 months.
- do not long-term use of sensors in dust dense environment.
- Please pay attention to the connection of the positive and negative electrodes of the power supply and the signal output end, do not reverse connection.

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