

FSM-T-01 Pre-calibrated Module for Methane Gas

Features:

- * Gas concentration is digitally and quantitatively output by means of communications
- * Alarm output can be set through programming
- * Factory calibrated, temperature compensated
- * Compact size, low cost

FSM-T-01 is a pre-calibrated module for methane gas alarm which applies TGS2611 sensor together with optimized classic circuit measuring methane gas concentration. The module is pre-calibrated by Figaro's highly accurate calibration equipment and manufactured with mature aging process. The purpose of the module design is to save the development and production cost of the user to its greatest extent, making it easier and more convenient for them to manufacture gas alarm for civil natural gas.

The module is designed with two different interfaces considering the convenience for use. TTL level's asynchronous communication interface allows the user to read real time gas concentrations with very simple commands; also different alarm thresholds can be set through communication programming. When the gas concentration reaches set value alarm output signal would be generated automatically from the alarm terminal.

Besides, this compact sized module applies a socket type design which facilitates regular replacements of the sensors. For some main board, different modules can also be replaced simply by plugging and pulling out, fulfilling the functions of detection and alarming for methane and other gases.

Applications :

- * Front-end solution for methane gas alarm
- * Simple methane gas alarm output



Pin connections:

Pin	Name	Description
1	NC	Not connected
2	NC	Not connected
3	NC	Not connected
4	Vin	Voltage in
5	GND	Ground
6	Alarm	Alarm output
7	LED	Indicator of work status
8	TX	Transmitting
9	RX	Receiving
10	KEY	Add. programming switch

Note: The module can be customized according to various requests, different measured gases, diverse accuracies or different module interfaces. Contact our technical staff for more information.

Specifications:

Name	Methane gas sensor module	
Model No.	FSM-T-01	
Gas sensor	TGS2611-E00	
Range	0~20% LEL	
Accuracy	$\leq \pm 2.5\%$ LEL(4000ppm~5000ppm)	
	$\leq \pm 5\%$ LEL(Full scale)	
Response time (T90)	≤ 30 s	
Operating	$-10^{\circ}\text{C}\sim+55^{\circ}\text{C}, 25\sim 95\%RH$	
Storage	$-25^{\circ}\text{C}\sim+60^{\circ}\text{C}, 20\sim 95\%RH$	
Input voltage	$5.0\pm 0.2\text{V DC}$	
Maximum Power consumption	≤ 0.5 W	
Net Weight	$< 15\text{g}$	
Dimensions	27.2×22.8×17 mm	
Standard Test Conditions	Environment	$20\pm 2^{\circ}\text{C}, 65\pm 5\%RH$
	Loop	$5.0\pm 0.2\text{V DC}$
	Warming-up time	≥ 5 min

Dimensions (mm) :

