

FSM-T-01 methane gas pre-calibration module

characteristic :

- * Gas concentration is quantitatively output by communication
- * Programmable setting of alarm point output
- :: Factory calibration, temperature compensation
- Small size, low cost

FSM-T-01 is a pre-calibration module for methane gas alarms. This module The methane gas concentration measurement utilizes the TGS2611 sensor with an optimized classical circuit design, pre-calibrated using Tianjin Figaro's high-precision calibration equipment and manufactured through mature aging processes. This module is engineered to maximize cost savings for users in development and production, enabling easier and simpler manufacturing of household natural gas alarm systems.

For user convenience, this module features two distinct interfaces. The TTL-level asynchronous communication interface enables users to read real-time gas concentrations through straightforward commands, while also allowing configuration of customizable alarm thresholds via programming. When gas concentration reaches preset levels, the Alarm terminal automatically generates an alarm output signal.

In addition, this module is designed as a plug-in connection, compact and flexible, can be easily replaced periodically with sensors. For a certain motherboard, you can also replace different modules through simple plug and play to achieve methane or other gas detection and alarm function.

apply :

- * Front-end scheme of methane gas alarm
- * Simple methane gas alarm output



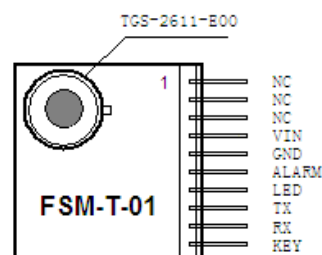
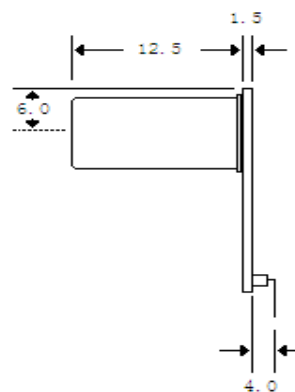
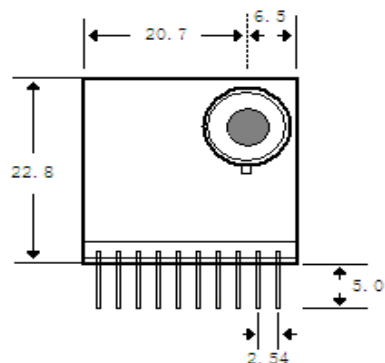
Pin connection:

pin	name	description
1	NC	Not connected
2	NC	Not connected
3	NC	Not connected
4	Vin	input voltage
5	GND	Common ground line
6	Alarm	Alarm outputs
7	LED	working station indicator
8	TX	Communication sent
9	RX	Communication reception
10	KEY	Address programming switch

specifications :

product name	methane gas sensor module	
model	FSM-T-01	
gas transducer	TGS2611-E00	
Scope of detection	0~20% LEL	
accuracy class	$\leq \pm 2.5\%$ LEL(4000ppm~5000ppm)	
	$\leq \pm 5\%$ LEL (full range)	
Gas response time (T90)	≤ 30 seconds	
going	$-10^{\circ}\text{C}\sim+55^{\circ}\text{C}$, 25~95%RH	
maintaining requirement	$-25^{\circ}\text{C}\sim+60^{\circ}\text{C}$, 20~95%RH	
input voltage	$5.0\pm 0.2\text{V DC}$	
maximum power dissipation	$\leq 0.5\text{ W}$	
net weight	Under 15g	
outline dimension	27.2×22.8×17 mm	
standard test conditions	ambient condition	$20\pm 2^{\circ}\text{C}$, $65\pm 5\%$ RH
	Loop conditions	$5.0\pm 0.2\text{V DC}$
	Pre-test warm-up	≥ 5 minutes

Structure and size (unit mm):



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