

FSM-T-601 Pre-calibrated Module for Combustible Gas

Features:

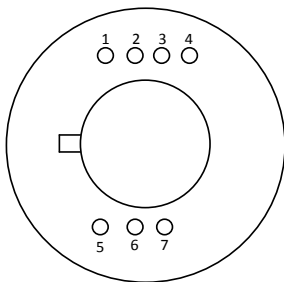
- * Analog linear output proportional to gas concentration
- * Maintenance free
- * Small volume
- * RoHS Compliant

The pre-calibrated module for combustible gas sensor FSM-T-601 is a new module in which Figaro's catalytic pellistor TGS6812 is installed and features good durability as well as high stability. It is able to provide analog voltage output (the module is equipped with a memory in which the factory pre-calibration data are stored) proportional to the concentration detected. Meanwhile, the module could detect whether there is a sensor disconnection. And it can be operated over a wide temperature range.

In addition, if detecting methane, propane and hydrogen etc., the module has neglectable cross sensitivities to organic gases, and has a better tolerance against silicone compounds, for which it is more suitable to adverse environment.

Sensitivity characteristics:

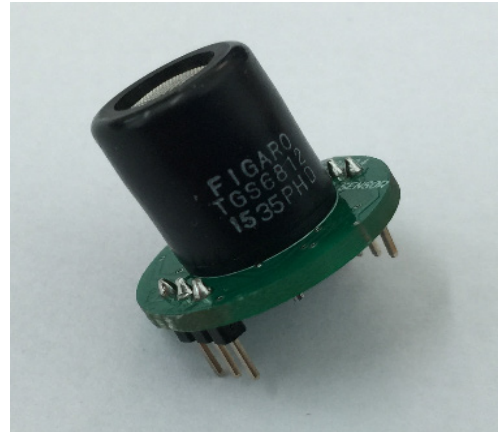
The output of the module is analog voltage signal linear with the concentration of methane gas in the air.



Top View

Applications:

- * Leakage detection for methane gas
- * Combustible gases leaking detector
- * Industrial detector



Pin connections:

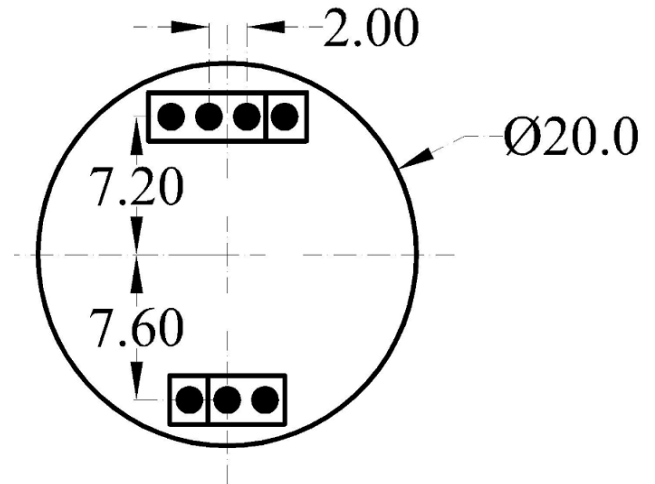
| Pin | Name | Description |
|-----|------|-----------------------|
| 1 | WP | I2C write protection |
| 2 | SCK | I2C clock |
| 3 | SDA | I2C data |
| 4 | +5V | Voltage in |
| 5 | +3V | Voltage in |
| 6 | GND | Ground |
| 7 | Vout | Analog voltage output |

IMPORTANT NOTE: OPERATING CONDITIONS IN WHICH FIGARO SENSORS ARE USED WILL VARY WITH EACH CUSTOMER'S SPECIFIC APPLICATIONS. FIGARO STRONGLY RECOMMENDS CONSULTING OUR TECHNICAL STAFF BEFORE DEPLOYING FIGARO SENSORS IN YOUR APPLICATION AND, IN PARTICULAR, WHEN CUSTOMER'S TARGET GASES ARE NOT LISTED HEREIN. FIGARO CANNOT ASSUME ANY RESPONSIBILITY FOR ANY USE OF ITS SENSORS IN A PRODUCT OR APPLICATION FOR WHICH SENSOR HAS NOT BEEN SPECIFICALLY TESTED

Specifications:

| | | |
|-------------------------------------|---|---------------------------|
| Name | Pre-calibrated module for combustible gas | |
| Model No | FSM-T-601 | |
| Gas sensor | TGS6812 (catalytic combustible) | |
| Measuring range | 0 ~ 50,000ppm Methane (Other flammable gases can also be detected) | |
| Error | ± 3%LEL | |
| Voltage output (V _{conc}) | 0.5~4.5V DC (Max. +5V) | |
| | Fault | V _{conc} =0~0.1V |
| Factory setting output | V _{conc} in air 1.0±0.5V | |
| Response time(T ₉₀) | ≤ 30 s | |
| Working condition | -10° C ~+70° C, 20~95%RH (non-condensing) | |
| Storage | -10°C ~+80°C, 20~95%RH | |
| Input voltage (V _{IN}) | 5.0±0.2V DC, 3.0±0.1V DC | |
| Power consumption | ≤ 1.5W | |
| Net weight | < 15g | |
| Dimension | φ 23.6mm H23.2mm | |
| Standard Test Condition | Environment | 20±2°C, 65±5%RH |
| | Loop | 5.0±0.2V、3.0±0.1V DC DC |
| | Warming up | ≥ 10 Min. |

Dimensions:



Unit: mm

Note: 1. Please contact us if the module is used to detect other combustible gases or alarm points (calibration points) of different measuring ranges are to be used.

2. The detection errors may be different due to the difference of detection gases and ranges.

3. Please consult relevant personnel of us before using the data stored in the memory of the module.

All sensor characteristics shown in this brochure represent typical characteristics. Actual characteristics vary from sensor to sensor and from production lot to production lot. For more information, please refer to sensor spec and related info. For performance improvement, product is subject to change without notice.◦