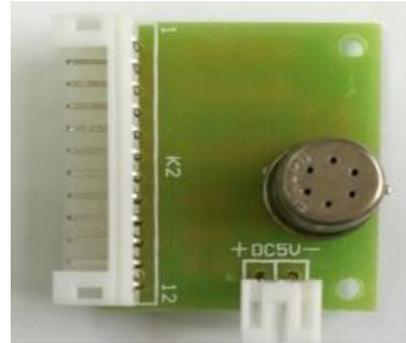


## Air Quality Detecting Module----FAM-001-01

### Features:

- \* Low power consumption
- \* Long Lifetime
- \* High selective to low concentration gas
- \* High sensitivity to cigarette or cooking and VOCS



### Applications:

- \*Indoor Air Purifier
- \*Indoor Air Quality Monitor
- \*Air Condition
- \*HVAC

FAM-001-01 is combined with sensor TGS2600 which detects indoor air quality, it is high sensitivity to low concentration pollutions, like cigarettes, cooking, TVOCS.

### Parameters:

Power Supply	5±0.2V DC
Power consumption	250mW
Operating Temperature	-10~55°C
Dimensions	27.5*23mm
Terminal Type	K2 PH-12AYT(interval 2mm)

Pins	Name	Description
K2-1	Reset	Connect Reset Button
K2-2	Power Indication	High voltage output, I<20mA
K2-3	First level output	High voltage output, I<20mA
K2-4	Second level output	High voltage output, I<20mA
K2-5	Third level output	High voltage output, I<20mA
K2-6	Forth level output	High voltage output, I<20mA
K2-7	Fifth level output	High voltage output, I<20mA
K2-8	Sixth level output	High voltage output, I<20mA
K2-9	Saturation signal output	High voltage output, I<20mA
K2-10	GND	K2 1~9 negative terminal
K2-11	NA	NA
K2-12	NA	NA
K1	Power	5±0.2V DC

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## Running Normal:

Power indication LED lights when supply power ( Assume K2-2 connects to green LED) ,the unit runs normal after about 5 minutes, the unit will detect and judge the air quality level(According to different application, detecting refresh time will be different, hope to ask for supplier before using). The 6 stage shows the pollution level.

## Running Saturation:

At air pollution status, it has two ways to make indoor air quality clean: a. ventilating the outdoor air, b. filtering the indoor pollution air. If using the second way, it can wipe off smell, but it don't filter the hydrogen in pollution air, the sensor will detect the H2 all the time, in the situation, the unit doesn't judge the air clean, it calls saturation status. As the unit judgment does not conform to human feeling, the unit has to add another judgment program to avoid saturation status. When air quality is slight pollution, middle pollution, heavy pollution, the unit judges if it is saturation status every 3 seconds, judge if it resets saturation status every 3 minutes, if it meets saturation condition and does not meet resetting saturation status condition in 30 minutes, the unit will process the sensor signal at this moment as the result of clean air reference to judge pollution level. If it does not meet saturation condition or meets resetting saturation condition in 30 minutes, then it jumps out running saturation mode.

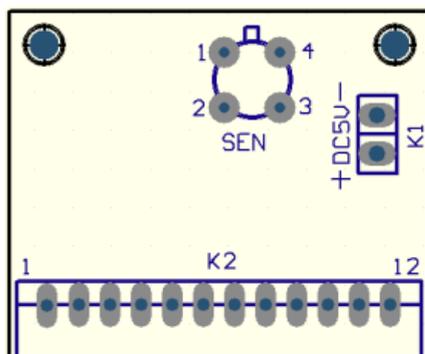
## Abnormal display:

When sensor is abnormal, K9 outputs high and low voltage (it will twinkle if connecting LED). When relieving abnormal, it needs to reset.

## Reset:

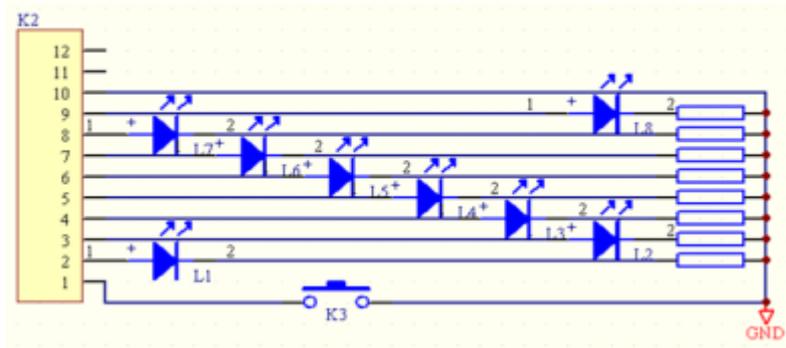
If K2-1 is short to GND(K3 close), the unit will be reset, it is independent of running status. It will judge the air quality again after resetting.

K1, K2 connector shows as below:



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## K2 circuit schematic:



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