FCM2630 Refrigerant Gas R-32 Pre-Calibration Module

characteristic：

* Calibrated for shipment

* Internal temperature compensation circuit

:: Anti-interference gas

* Compact structure and small size

apply：

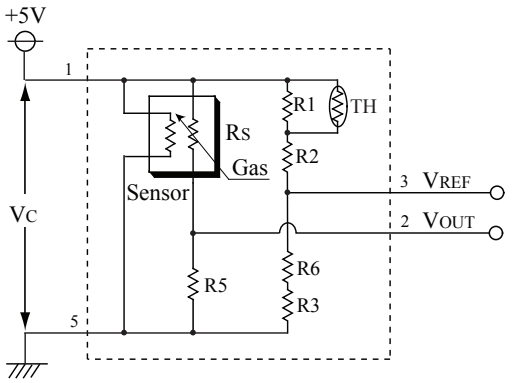
* For refrigerant leakage detection in air conditioning and refrigeration systems

The FCM2630 is a pre-calibrated module featuring R-32, a non-flammable refrigerant gas detection technology. Its compact design enables seamless integration with various equipment. This solution eliminates the need for sensitive adjustments, temperature compensation, and other specialized processes required in conventional gas sensor systems, allowing rapid deployment of highly reliable leak detection solutions. The module's plug-in sensor design significantly simplifies maintenance procedures, including routine replacements and upkeep requirements.

The gas sensor TGS2630 installed in this module has a built-in filter and adsorption layer to reduce the influence of interfering gases such as alcohol, which makes it highly selective for non-flammable refrigerants like R-32. For information about sensitivity characteristics, please refer to the product introduction of the gas sensor TGS2630.

FCM2630 can meet the performance requirements of JRA4068:2016 (Performance 3) formulated by the Japan Frozen Air Conditioning Industry Association.

circuit diagram：



V C: Circuit voltage
V OUT: Output voltage
V REF: Reference voltage

Pin setting:

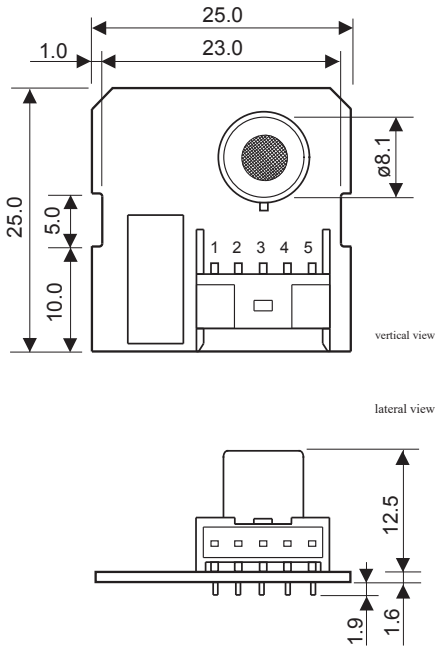
pin	name	description
1	Vc	loop voltage
2	Vout	Sensor output voltage
3	VREF	reference voltage
4	-	-
5	GND	Common ground line

Connection model: S05B-PASK-2 (JST)
Recommended use: PAP-05V-S type socket (JST made)

specifications：

model		FCM2630
gas transducer		TGS2630
Object gas		Refrigerant gas R-32
loop voltage	Vc	5.0±0.2V DC
output voltage	VOUT	2.5±1.0V 5000ppm R-32 in (standard test conditions) Fault state: V OUT <0.05V or V OUT> 4.95V (V C = 5.00V)
reference voltage	VREF	2.5±1.0V (under standard test conditions) Fault status: V REF <0.50V or V REF> 4.00V (V C =5.00V)
Initial alarm sensitivity		2800~9000ppm R-32 (standard test conditions) Alarm status: V OUT ≥ V REF Normal state: V OUT <V REF
preheating time		⩽60 seconds (the required time for V OUT <V REF to be energized in clean air)
Use temperature and humidity range		-10. ~+50. C, 20~95%RH (no condensation)
power dissipation		About 0.3W
size		25 x 25 x 17mm
net weight		About 4g
standard test conditions	Test gas conditions	20°±2°C, 65±5%RH
	Loop conditions	Vc = 5.00±0.05V DC
	preheating time	⩾1 day

Structure and size:



Unit : mm

Note 1) If the temperature around the gas sensor module exceeds the ambient temperature by 10℃ due to heat from circuit components within the equipment housing where this module is installed, the reference voltage will change, consequently altering the alarm threshold. Should the internal temperature rise fail to remain below 10℃ during system design, please contact our technical team for customized solutions.

In order to improve performance, the contents of this specification may be changed without prior notice.

深圳市杰晟兴电子有限公司 JM Components Limited

地址：深圳市福田区中航路7号鼎诚国际大厦南座2007室 邮编：518031

手机：13662266995 马少良 电话：0755-83951311 传真：0755-83952401

官网：cn-sensor.com 电邮：jackson@jmcomponents.com