

FCM2610-L - R-290 Refrigerant Gas Sensor Module

Features:

- * Small size and long life
- * Factory calibrated
- * Temperature compensation circuit
- * Proprietary semiconductor-type gas sensor
- * Meets IEC TS 63542 requirements

FCM2610-L is an embedded type module using the proprietary semiconductor gas sensor which has high sensitivity to A3 refrigerant gas R-290. This module enables users to easily build a reliable gas leakage detection system by eliminating electronic circuit design for temperature compensation and the calibration process.

By utilizing dual gas sensors, a longer life is achieved than our single sensor modules.

The refrigerant gas sensor has a built-in filter to reduce the influence of alcohol and other interference gases, resulting in high selectivity to R-290.

FCM2610-L is capable of satisfying the IEC TS 63542 (*TBD).

Applications:

- * Refrigerant gas leak detection in air conditioning/refrigeration systems



Pin Connections:

Pin No.	Name	Description
1	GND	Common ground
2	—	No connection
3	—	No connection
4	Vout1	Total running time output
5	Vout2	Monitoring/alarm/malfunction output
6	VDD	Power supply

Connector model: B06B-PASK-1 (LF) (SN)
Recommended connector: PAP-06V-S

Specifications (tentative):

Model No.	FCM2610-L
Target gases	R-290
Circuit voltage Vc	DC 5V $\pm$ 4%
Output signals	Open collector (*TBD) *See below about Vout 1, 2 output
The alarm set point declared by the manufacturer	R-290: 6.2%LFL (1,302ppm) (*TBD)
Warm-up time	60 seconds after power ON
Design Life	15 years
Operating conditions (NOTE 1)	-30 °C to +60 °C, 0 to 95% RH
Current consumption	Approx. 75 mA (Max. 125 mA)
Power consumption	Approx. 0.375 W
Dimensions	Approx. 26 × 26 × 16 mm
Weight	Approx. 6 g

*NOTE 1: The upper limit of the absolute humidity is 50 g/m³.

Vout1: Time notification (375msec. cycle)

State	Vout 1 (Time)
0 to 10 years	75msec HiZ / 300msec Low
10 to 15 years	225msec HiZ / 150msec Low
Over 15 years	300msec HiZ / 75msec Low

*TBD

Vout2: State output (375msec. cycle)

State	Vout 2 (State)
Initial /Monitoring	75msec HiZ / 300msec Low
Alarm	225msec HiZ / 150msec Low
Malfunction	0msec HiZ / 75msec Low
Power OFF	375msec HiZ / 0msec Low

*TBD

All sensor characteristics shown in this brochure represent typical characteristics. Actual characteristics vary from sensor to sensor. The only characteristics warranted are those in the Specification table above.