NDIR CH_4 SENSOR MODULE

LARK-1 CH4 5000PPM| Order No.: 001-0800-100

DATASHEET

Parameters

Principle	NDIR
Range	0 ~ 5000 ppm CH_4
Sampling Mode	Pumping
Response Time	≤ 3 s (@500 ml/min)
Recovery Time	≤ 3 s (@500 ml/min)
Long-term Stability*	≤ ±500 ppm/month
Temperature	-20 ℃ ~ 50 ℃
Tolerance	±100 ppm @20℃ (≤ 2000 ppm) ±5% Conc. @20℃ (≤ 5000 ppm)
Zero Temp. Drift	±500 ppm (Online Zero Calibration Available)
Resolution	20 ppm/sec
Reading Unit	ppm
Detection Limit	20 ppm

*Long-term Stability: 28 days of zero drift measured in clean air of 0~90% RH、0~35 ℃

Mechanics

Optic Path	Steel
Circuit Board	FR4 / Lead-free HASL
Solder	Sn / Ag / Cu
Mounting Plate	ABS

Applications

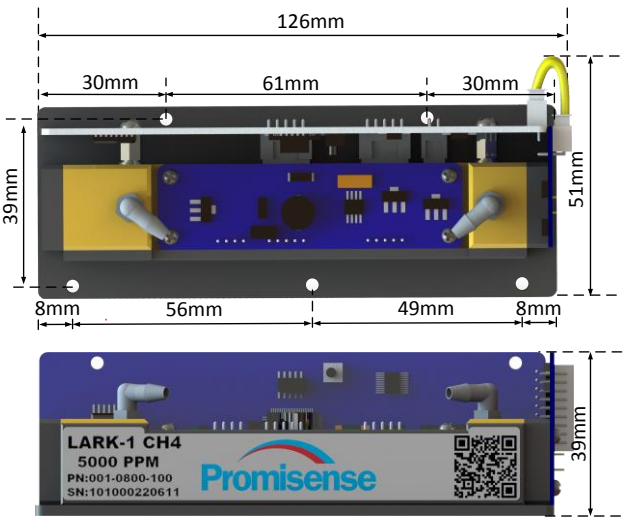
- Natural Gas Leakage Detection
- VOC Detection
- Automobile Exhaust (HC) Analysis

Merits

- Low Detection Limit
- Wide Temperature Range
- Small Size
- Long Life
- Fast Response

Dimensions

- Length: 126 mm ± 1 mm
- Width: 51 mm ± 1 mm
- Height: 39 mm ± 1 mm
- Weight: 208 g ± 5 g
- Screw Hole Diameter: 3 mm



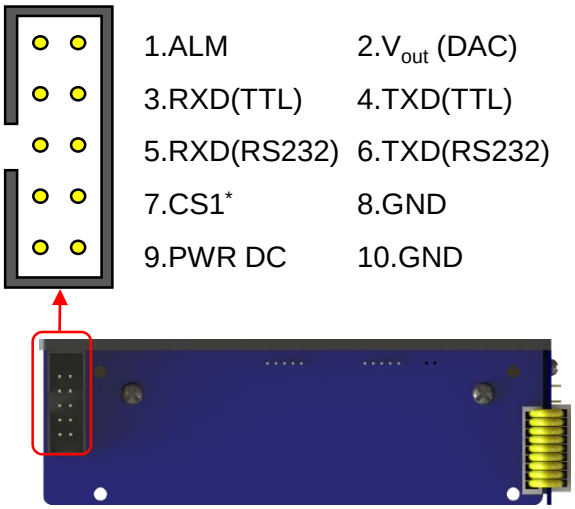
Suzhou Promisense Electronic Technology Co. Ltd.
402, NW-02, #99, Jinji Lake Avenue, Industrial Park, Suzhou, PRC
Tel: +86 0512-65976521 E-mail: Sales@promisense.com

Promisense
www.promisense.com

Electrical Parameters

Input Voltage	9 ~ 24 VDC (#9 pin)
Operating Current	< 0.15 A @9 VDC
Power	< 1 W for Average
	< 1.5 W @Peak
Warm-up Time	3 minutes
	(Tolerance ±500 ppm)
	60 minutes
	(Tolerance ±100 ppm / ±5% Conc.)
Output Voltage	0.4 ~ 2.0 VDC (#2 pin)
	(0.3 ~ 0.4 V for Negative Reading)
Warranty	18 months*

Connector Definition



1.ALM	2.V_{out} (DAC)
3.RXD(TTL)	4.TXD(TTL)
5.RXD(RS232)	6.TXD(RS232)
7.CS1*	8.GND
9.PWR DC	10.GND

*CS1: 0-3.3 VDC Output, for RS485

Application Condition

Prefer Condition	Room Temperature, Dry, Clean
Safety	None Explosion-proof Design
Temperature	-20 ℃ ~ 50 ℃
Humidity	0% RH ~ 85% RH
	(No Condensation)
Flow Rate	300 ~ 800 ml/min
Pressure	0.5 ~ 2.0 ATM
	(Ambient air pressure measured, without pressure compensation)

Attachment

Tygon Tube

- Length 50 mm × 2
- Diameter 3.2 mm × 6.4 mm
- Polyethylene, Transparent

Ribbon Cable

- Length 200 mm × 1
- 10-pin, 28 AWG, Gray
- Female Connector, 2 × 5
- 2.54 mm Pitch

*Non-warranty Case:

- Polluted by condensation, water or dust; Dust and water removing is strongly suggested;
- Damaged by falling, hitting, disassembling, etching or over-loading;
- Label has been torn.

We reserves the right to modify this datasheet and will optimize the product in the future. If you use this product for specific application, please contact us for more technical support.

Suzhou Promisense Electronic Technology Co. Ltd.
402, NW-02, #99, Jinji Lake Avenue, Industrial Park, Suzhou, PRC
Tel: +86 0512-65976521 E-mail: Sales@promisense.com
www.promisense.com