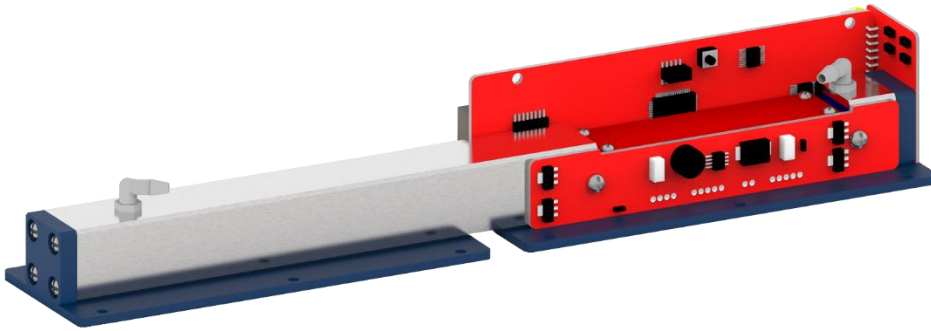


# NDIR CH<sub>4</sub> SENSOR MODULE

# DATASHEET

LARK-1SLM CH4(LD) 1000PPM | Order No.: 001-0900-804



## Parameters

Principle	NDIR
Range	0 ~ 1000 ppm CH <sub>4</sub>
Sampling Mode	Pumping
Response Time	≤ 10 s (@500 ml/min)
Recovery Time	≤ 10 s (@500 ml/min)
Long-term Stability*	Testing
Temperature	-20 °C ~ 50 °C
Tolerance	± 10 ppm (0 ~ 500ppm) ± 30 ppm (500 ~ 1000ppm)
Zero Temp. Drift	Testing
Resolution	5 ppm @Zero
Reading Unit	ppb
Detection Limit	10 ppm

\*Long-term Stability: 28 days of zero drift measured in clean air of 0~90% RH, 0~35 °C

## Applications

- Detection of trace amounts of CH<sub>4</sub>
- CH<sub>4</sub> detection in mixed gas

## Merits

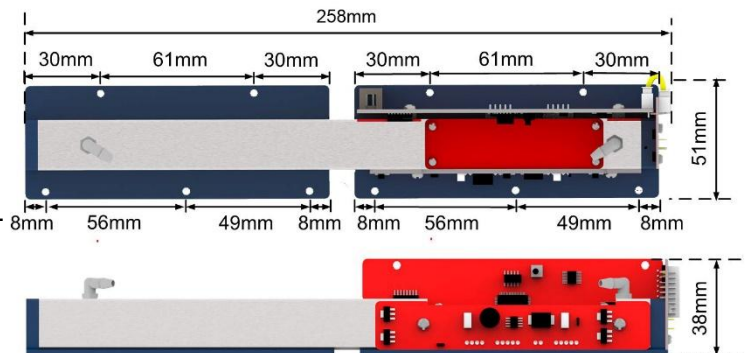
- High Resolution
- Low Cross interference
- Long Life

## Dimensions

- Length: 258 mm ± 1 mm
- Width: 51 mm ± 1 mm
- Height: 38 mm ± 1 mm
- Weight: 540 g ± 5 g
- Screw Hole Diameter: 3 mm

## Mechanics

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

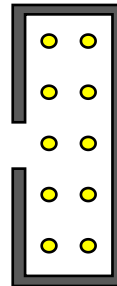


# DATASHEET

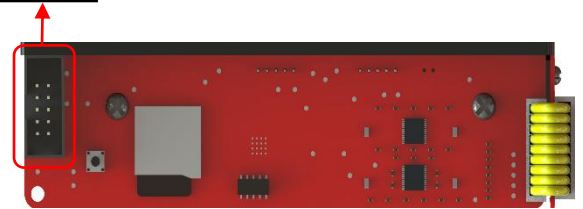
## Electronics

Input Voltage	9 ~ 24 VDC (#9 pin)
Operating Current	< 0.15 A @9 VDC
Power	< 1 W Average < 1.5 W @Peak
Warm-up Time	3 minutes (Tolerance ±15 ppm) 60 minutes (Tolerance ±10 ppm)
Output Voltage	Not have
Warranty	18 months*

## Connector Definition



1. NC	2. NC
3. RXD(TTL)	4. TXD(TTL)
5. A+(RS485)	6. B-(RS485)
7. NC	8. GND
9. PWR DC	10. GND



## Application Condition

Prefer Condition	Room Temperature, Dry, Clean
Safety	None Explosion-proof Design
Humidity	0% RH ~ 85% RH (No Condensation)*
Flow Rate	300 ~ 800 ml/min
Pressure	0.5 ~ 1.5 ATM (Ambient air pressure measured, without pressure compensation)

## Accessories Included

### Tygon Tube

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

### Ribbon Cable

- Length 400 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.

\* Using within this humidity range will not damage the sensing module, but the accuracy of the module will be affected. It is recommended to perform pre-treatment for dust and water removal.

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.

Nov 2023

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