NDIR C_2H_5OH SENSOR MODULE

LARK-1M C2H5OH 1600PPM| Order No.: 001-080Z-802

DATASHEET

Applications

- Exhaled alcohol measurement

Merits

- High Resolution
- Compact Size and Easy Installation
- Long Life
- Fast Response Speed

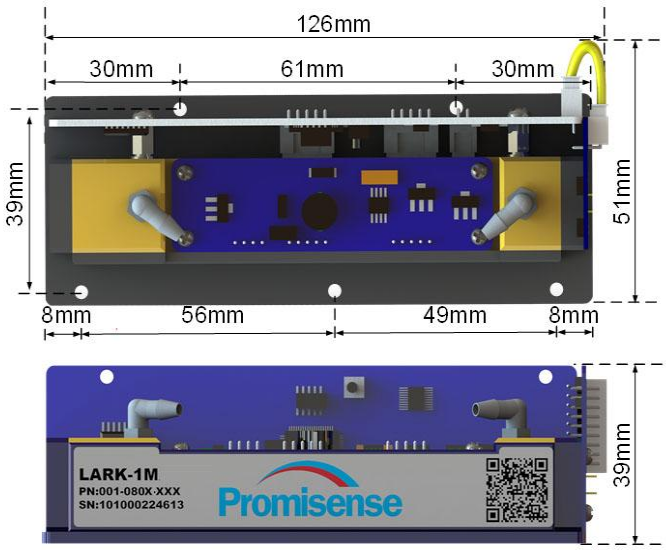
Parameters

Principle	NDIR
Range	0 ~ 1600 ppm C_2H_5OH
Sampling Mode	Pumping
Response Time	T90 ≤ 8 s (@500 ml/min)
Recovery Time	RT90 ≤ 8 s (@500 ml/min)
Long-term Stability*	Testing
Temperature	0 ℃ ~ 50 ℃
Tolerance	±15 ppm @20 ℃
Zero Temp. Drift	Testing (-20 ℃ ~ 50 ℃)
Resolution	5 ppm/sec
Reading Unit	ppm
Detection Limit	10 ppm

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

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



Mechanics

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

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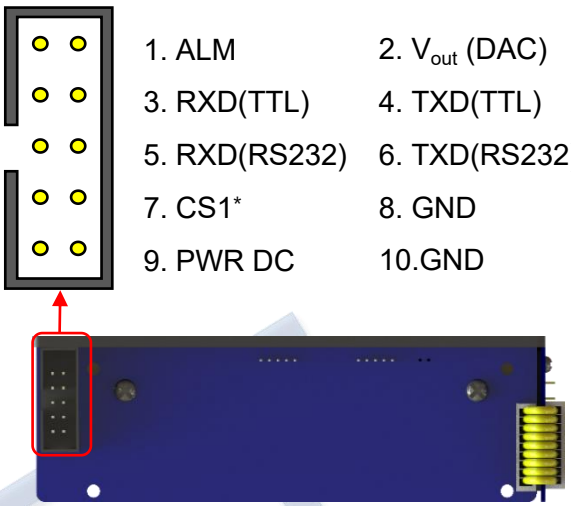
Electronics

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 ±20 ppm)
	60 minutes
	(Tolerance ±10 ppm)
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 convertor

Application Condition

Prefer Condition	Room Temperature, Dry, Clean
Safety	None Explosion-proof Design
Temperature	-20 ℃ ~ 50 ℃
Humidity	0 ~ 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 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.

** 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.

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