

Laser methane sensor

The GD4100-JD laser methane sensor uses a completely self-developed laser and photodetector as the core components, combined with a high-precision temperature control algorithm, concentration inversion algorithm and temperature compensation algorithm to achieve accurate measurement of methane concentration. The product is based on tunable laser gas absorption spectroscopy technology (TD-LAS), and the multi-reflection optical path structure is designed internally, with a long absorption optical path and high detection sensitivity. The standard threaded mounting interface and stainless steel structure design meet the explosion-proof requirements, which is convenient for customers to quickly integrate products, and can be widely used in underground space, the catering industry, the industrial chemical industry and coal mining, among other fields.

Product Features

Strong anti-interference

Methane "fingerprint spectrum" laser absorption detection technology, anti-poisoning, anti-water vapor and other
Other gas interference;

High detection accuracy

Direct and wavelength modulation technology combined with folded optical path design, measurement error ±6% true
Value @25 ;

Good adaptability to the environment

Wide temperature compensation correction algorithm, can
meet -40 ~+70 application;


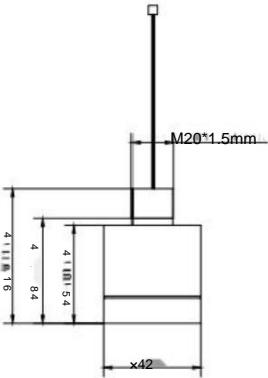
Strong structural protection

Stainless steel material design, meets the explosion-proof grade Exia IIC T6 Ga;

Low cost of use

Long service life, low power consumption, modular design, easy integration.

Product Appearance

| | |
|---------|---|
| name | Laser methane sensor |
| picture |  |
| size |  |

Laser methane sensor

Technical specifications

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|----------------------|--|---------------------------|--------------|
| Technical Parameters | Product | GD4100-JD--3.3V | GD4100-JD-5V |
| | Model Measurement | Methane | |
| | Gas Detection | TD-LAS | |
| | Principle Detection | Diffusion | |
| | Method | 0-20%VOL | |
| | Measurement Range Measurement Error | ±0.06%VOL,0-1%VOL | |
| | @25 | ±6% true value, 1-20% VOL | |
| | Detection | 0.2%VOL | |
| Working Parameters | limitMinimum | 0.01%VOL | |
| | resolutionResponse | T90<20s | |
| | timeExplosion- | Ex ia IIC T6 Ga | |
| | proof levelWorking | 3.3VDC | 5VDC |
| | voltageWorking | <200mW | <250mW |
| | power | Standard TTL | |
| | consumptionOutput | -40 ~+70 | |
| Weight and size | modeWorking | 0~95%RH(non-condensing) | |
| | temperatureWorking | 200g | |
| | humidityProduct weightProduct dimensions | Medium 42mmx61.4mm | |

The working power consumption is measured at an ambient temperature of 25°C and standard atmospheric pressure.

Product application scenarios

This product can be used as the core component of methane gas detection instruments or equipment to realize methane gas leakage detection and alarm.