

# Online UV Flue Gas Analyzer

## Type: GASBOARD 3000UV

**A maximum of 3 gas components  
(of NO, SO<sub>2</sub> and O<sub>2</sub>)  
can be measured simultaneously and continuously.**

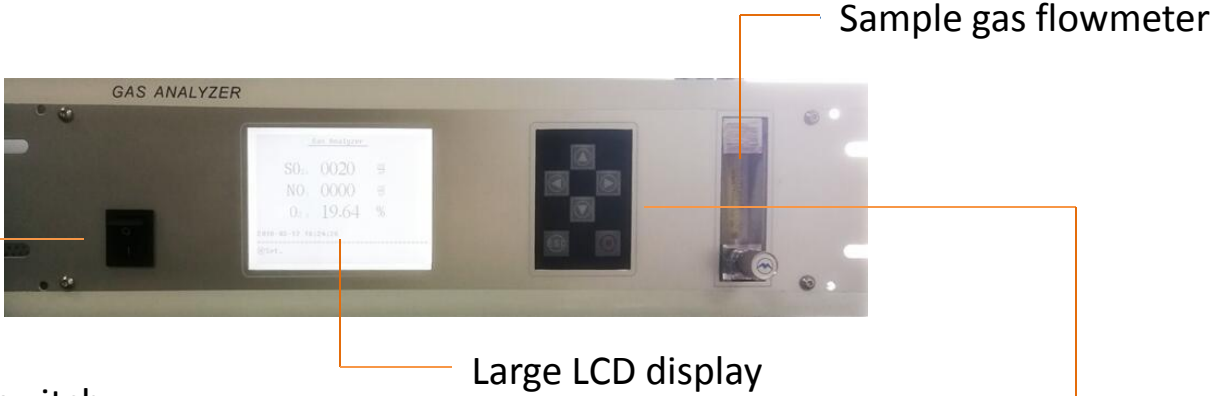


**Measurement of  
3 components  
with one unit**

**Simultaneous and continuous measurement of  
the concentration of 3 gas components.  
Excellent prolonged stability.  
Compact size and simple operation.  
Virtually unaffected by the interference of moisture.**

# Compact enclose packed with abundant functions

## <Front view>

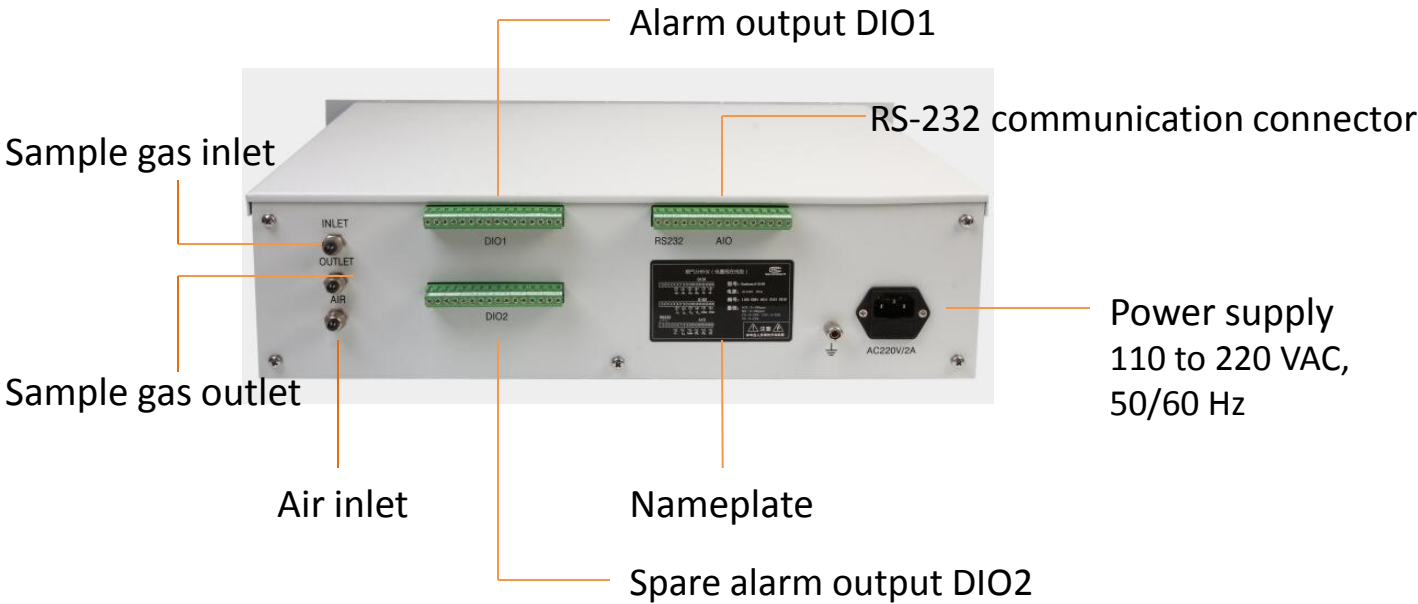


## Simple key operation

- Enter key  
Used to confirm the selected items and numeric values.
- Up/down key  
Used to switch the items to be selected.
- Escape key  
Used to return to the previous screen or abort setting midway.



## <Rear view>

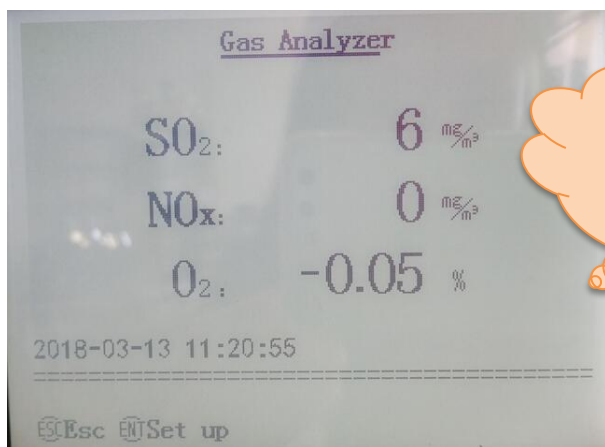




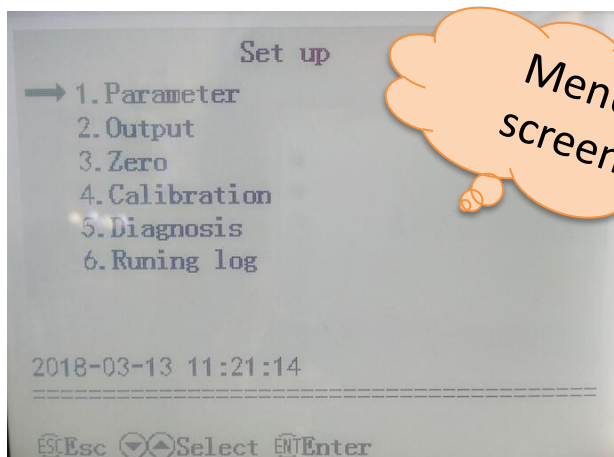
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## Easy-view large LCD

- Instruction in English facilitates operation

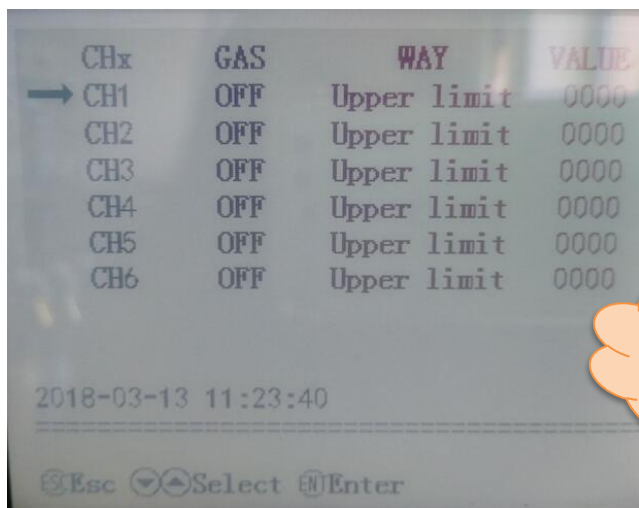
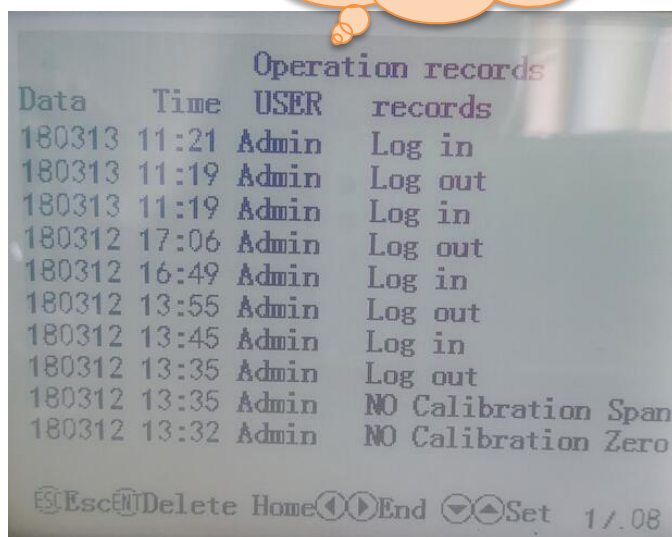


Components display



Menu screen

Operation record



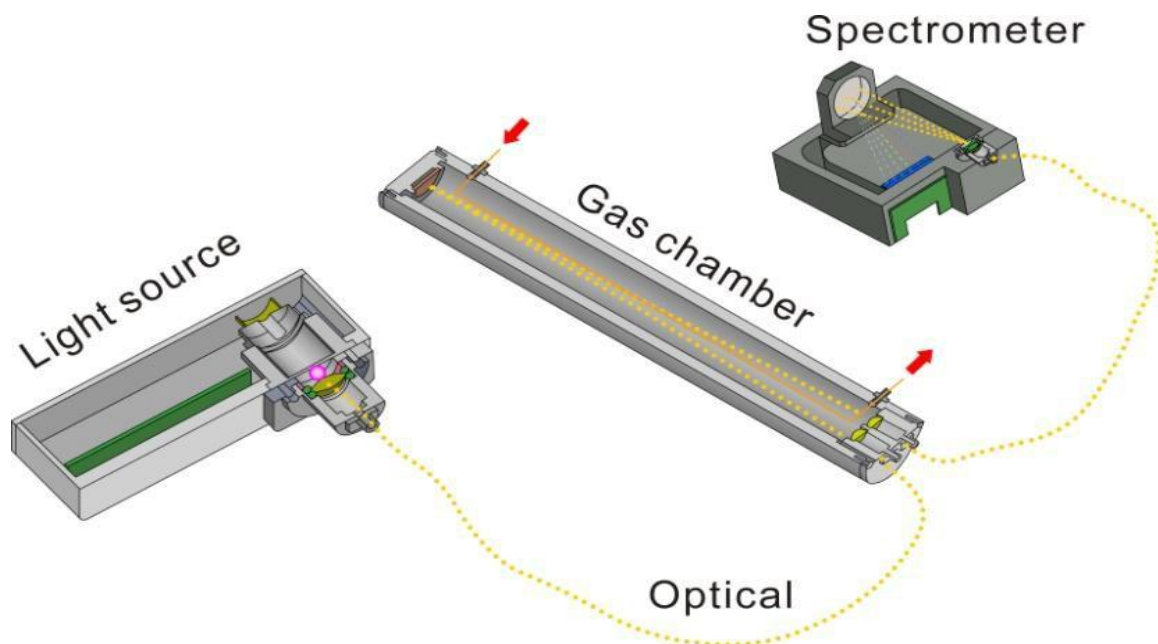
Alarm setting



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## Adoption of our unique UV DOAS technology

### Principle



Gasboard 3000UV uses optical technology bench to obtain absorption spectrum, which is composed of light source, gas chamber, optical fiber and spectrometer.

Light source: Adopting xenon flash lamp which has long life time and good stability.

Gas chamber: Adopting long optical path reflection gas chamber which has high sensitivity and strong signal absorption.

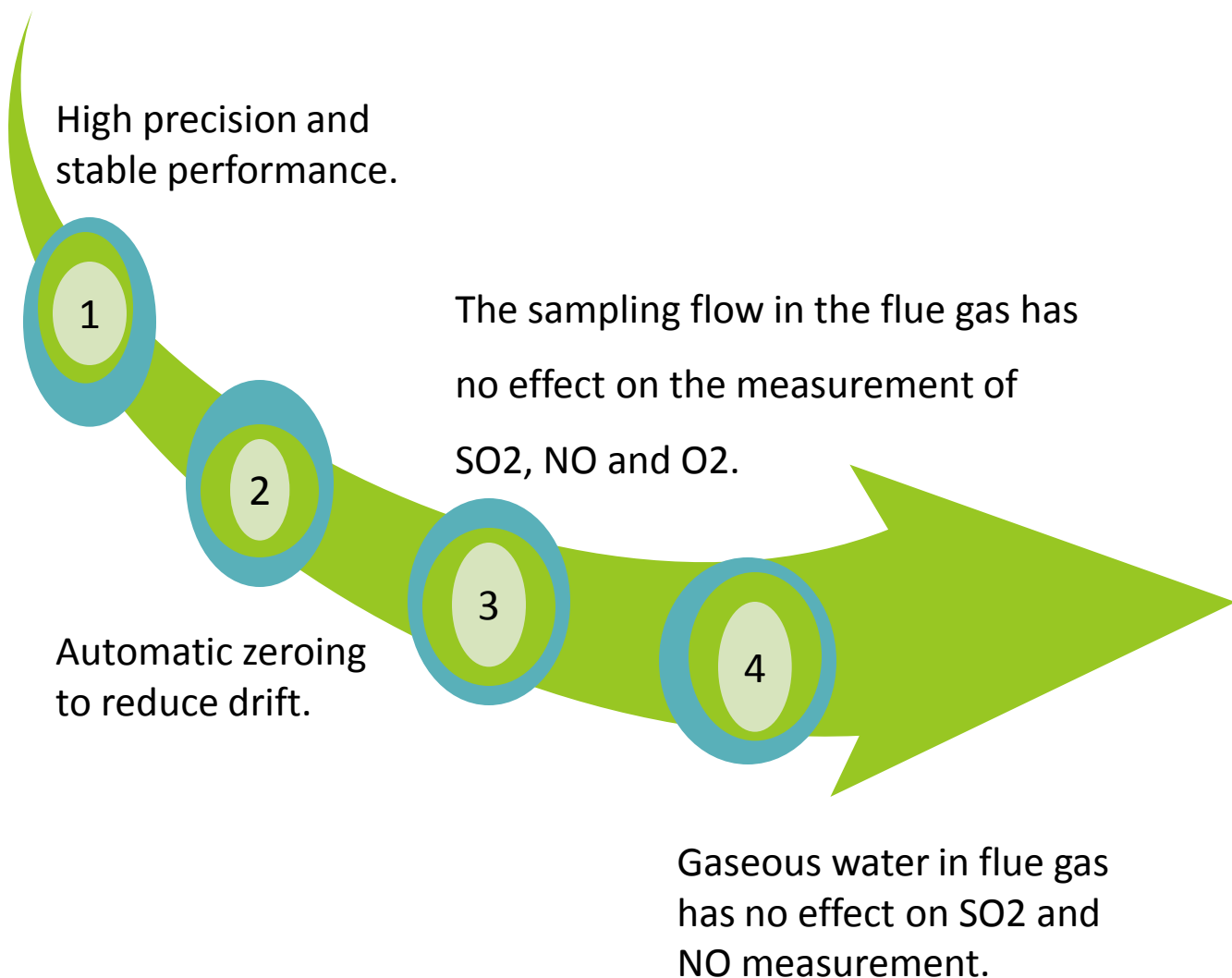
Spectrometer: Adopting high precision slits, holographic concave gratings, and CMOS sensors, the UV-band spectral response is fast, wavelength accuracy is high, and resolution is good.



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## Why is GASBOARD 3000UV

- Technical Benefit



GASBOARD 3000UV can be equipped the professional pre-treatment solution for continuous monitoring, it is a good tool for monitoring flue gas lowest range.



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## GASBOARD 3000UV Application

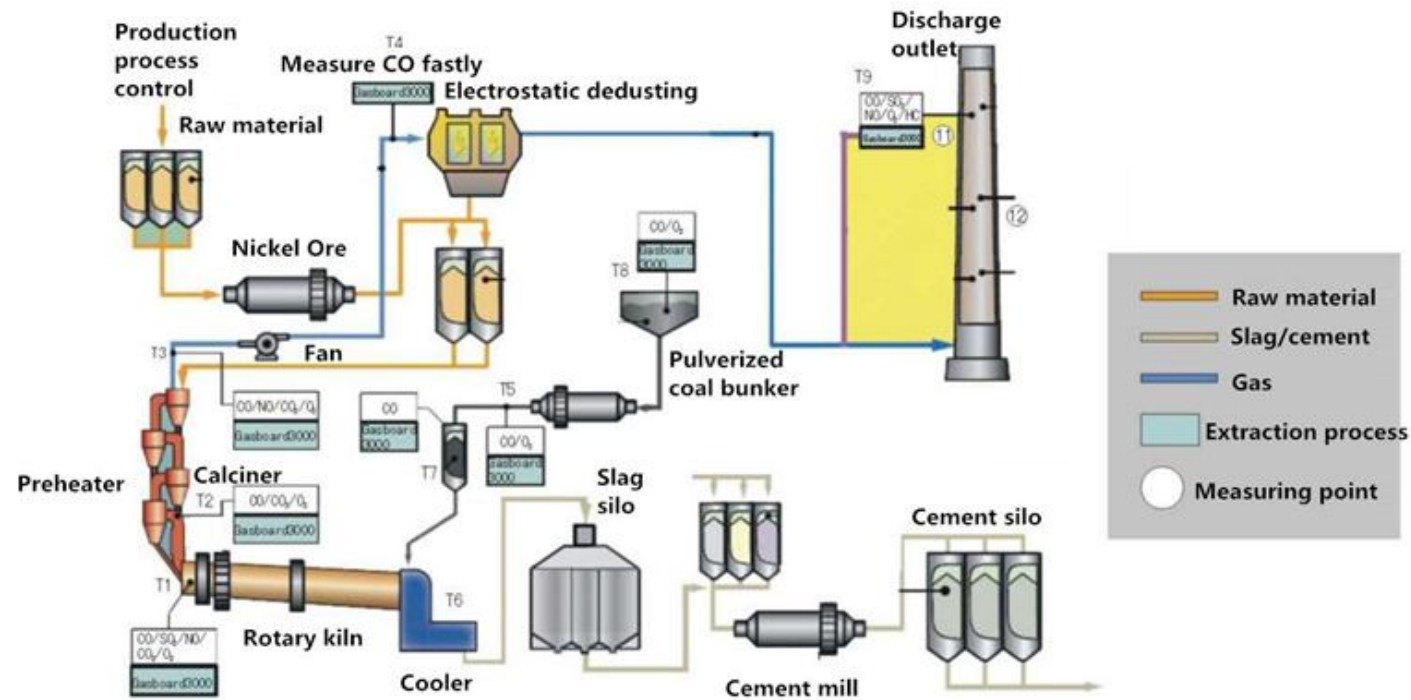


- Industrial production process monitoring.
- Industrial combustion efficiency monitoring.
- Desulfurization process monitoring.
- Denitration process monitoring.
- Industrial furnaces.
- Cement plant.
- Industrial coal-fired boiler.
- Monitoring of process control functions.
- Atmosphere monitoring during heat treatment of steel.
- Incinerators.
- CEMS integrator.

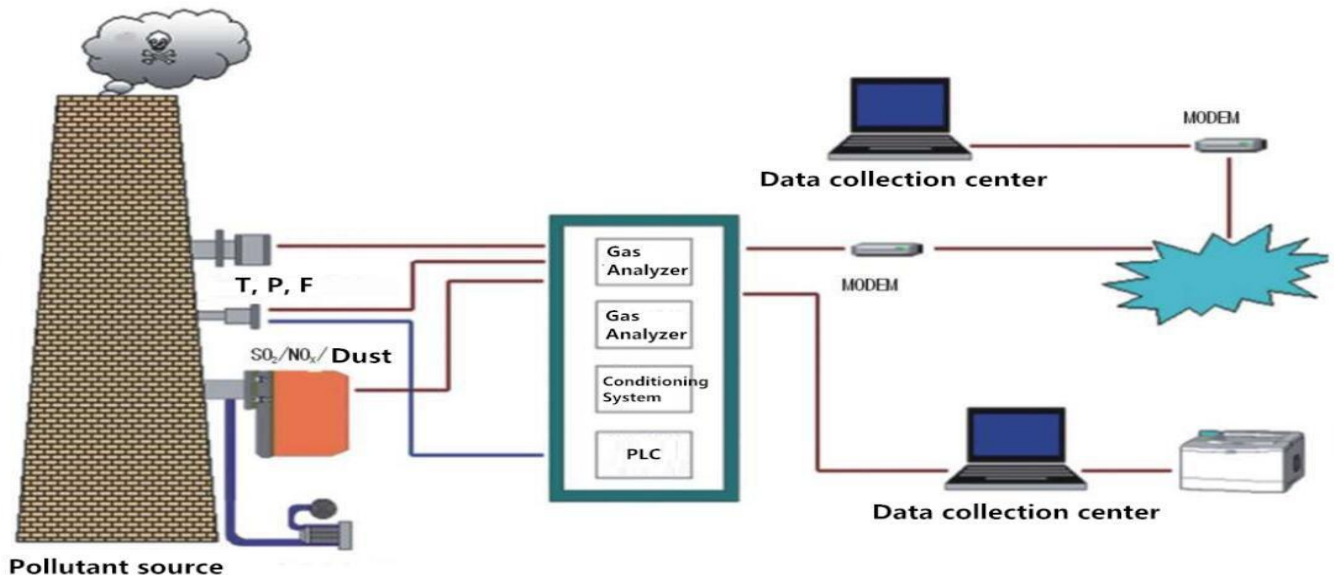


## Examples of Application

Example of measurement of exhaust gas from a cement (NO, SO<sub>2</sub>, CO, CO<sub>2</sub>, and O<sub>2</sub> measurement).



Example of measurement of exhaust gas from a boiler or refuse incinerator (NO, SO<sub>2</sub>, CO, CO<sub>2</sub>, and O<sub>2</sub> measurement). – CEMS integration



## Project Reference







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## **GASBOARD 3000UV Features**

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- Standard 19" 3U industrial enclosure design, easily to be integrated into different kind of gas monitoring systems.
- With LCD display to indicate all data index and tactile keypad easy for operation.
- Integrated RS232 or RS485 (optional) digital output and 4-20mA analog output, easy to be acquired by project center controlling system and satisfy the continuous monitoring demand.
- Equipped with sample gas flow meter and needle valve to regulate the inlet gas flow and internal gas filter to protect the gas sensor from impurities.
- UV sensor avoid influence by temperature fluctuation and improve the measurement accuracy.
- Auto-zeroing function with built-in auto-zero pump, efficiently decrease the calibration frequency.
- Easy maintenance because of UV sensor the measurement unit is simple with no need for optical adjustment.



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## GASBOARD 3000UV Major Specification

Measurement principle	SO2, NO: UV DOAS	
	O2: Electrochemical	
Measurable component and range	Measured components	Measurement range
	SO2	0-100mg/m³
	NO	0-100mg/m³
	O2	0-25%
Measurement range can be customized.		
Accuracy	SO2,NO,CO,CO2 : 2%FS	
	O2: 3%FS	
Repeatability	1%FS	
Response time (T90)	15s (90% response from gas inlet)	
Sample gas flowmeter	Built-in	
Ambient temperature	-5℃ to 45℃	
Relative humidity	≤ 95% non condensing	
Structure	Structure Indoor type with steel case	
Mounting method	19” rack mount, panel mount, desktop	
Power supply	110 to 220 VAC, 50/60 Hz	
Dimension	485*457*132 mm (L*W*H)	
Mass	Approximately 18kgs	
Measured gas condition		
Flow rate	0.7-1.2L/min	
Temperature	0-50℃	
Pressure	2-50kPa	
Dust	Particle size: 1µm or smaller	



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## Who We Are .....

**Hubei Cubic-Ruiyi Instrument Co., Ltd.** was established in 2003, is a research and development, manufacturing and marketing high-tech enterprise in one. We are specialized in development, production and sales of various kinds of flue gas analyzers, syngas analyzers, biogas analyzers, automobile emission gas analyzers, ultrasonic gas flowmeters and total solutions. We offer comprehensive support package to all customers for all of our products.

**Cubic-Ruiyi** keep developing on performance upgrading, technology improving, to make biogas monitoring more innovative and user-friendly. Our aim is make every effort to promote renewable energy and environment protection development.

**Cubic-Ruiyi** is a subsidiary company of Wuhan Cubic ( [www.gassensor.com.cn](http://www.gassensor.com.cn)).





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