KF200 In-situ Laser Gas Analyzer TDLAS For Real-Time Monitoring Of CO NH_3 HCl And O_2 In Industrial Emissions

Our Product Introduction

Basic Information

- Minimum Order Quantity: MOQ 1pc
- Price: USD 1400
- Stock: In stock 100pcs
- Shipping Method: Express
- Description: The KF200 Series Laser Gas Analyzer is specifically designed for industrial online analysis and continuous environmental
- Payment Terms: T/T

Product Specification

- Product Name: KF200 Laser Gas Analyzer
- Measurement Principle: TDLAS (Tunable Diode Laser Absorption Spectroscopy)
- MeasureMeasured Gasesd Gases: Measurement Range
- Measurement Range: CO 0–5000 Ppm; NH_3 0–1000 Ppm; HCl 0–500 Ppm; O_2 0–25% Vol
- Application Fields: CEMS, DeNOx, Waste Incineration, Cement, Power Plants
- Data Output: 4–20 MA, RS485 Modbus
- Highlight: **In-situ TDLAS Gas Analyzer**, **Real-Time Monitoring Gas Analyzer**, **Industrial Emissions TDLAS Gas Analyzer**

More Images

Product Description

KF200 Laser Gas Analyzer

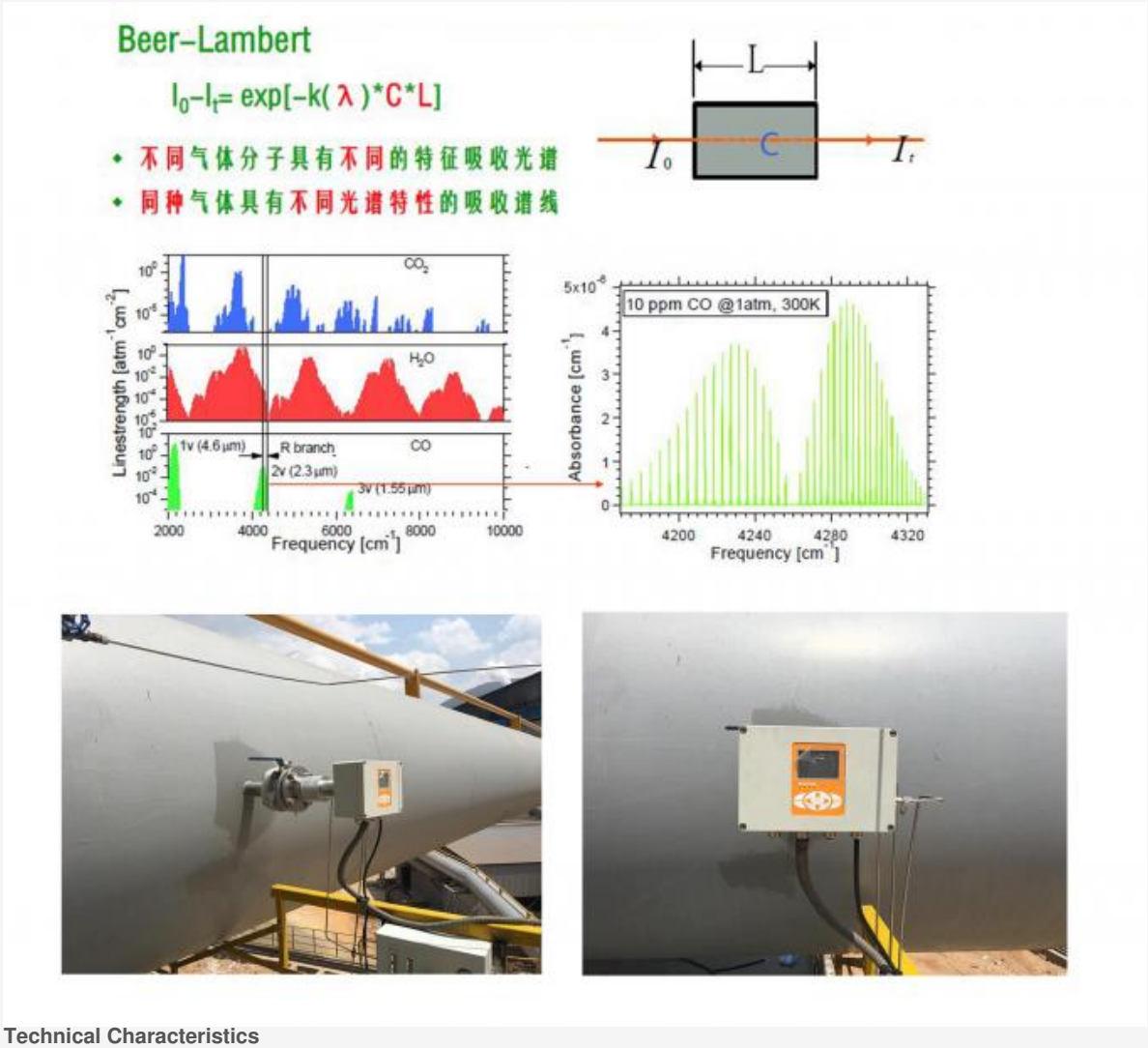
Product Description

The KF200 Series Laser Gas Analyzer is specifically designed for industrial online monitoring and continuous environmental emissions measurement. Utilizing **Tunable Diode Laser Absorption Spectroscopy (TDLAS)** technology, the analyzer features a highly integrated, compact design for reliable and precise gas detection.

The KF200 series offers a variety of configurations, including **in-situ probe, bypass, multi-channel, and disc-mounted models**, allowing the analysis of gases such as **O_2, CO, NH_3, CO_2, CH_4, H_2O, HC, HF**, and others. It supports both **macro-level and trace-level concentration measurements**, providing versatile solutions for different industrial applications.

Technical Principle

The system scans the specific absorption peak of the target gas by modulating the laser wavelength through controlled current and temperature. Background gas interference is eliminated, and the analyzer measures the **second harmonic signal** of gas absorption. Using this signal along with gas broadening information, the **precise concentration of the target gas** is calculated.



Technical Characteristics

Employs **TDLAS technology** for real-time, in-situ gas analysis.

Features a **dual-protection probe design** that eliminates the need for positive pressure purging or additional data processing units, offering a **compact, simple, and highly reliable structure**

Utilizes **high-power lasers** without fiber coupling, making it **suitable for harsh industrial environments**, including high dust conditions.

Technical Specifications:

Technical Data	linearity error	≤ ±1 F.S.
	Span drift	≤ ±1 F.S./6 months
	Repeatability	≤ 1
	calibration period	≤ 1 time/6 month
	Explosion-proof Grade	Ex d IIC T6
	Protection levels	IP66
Response Time	Warming-up time	≤ 15 min
	Response time(T90)	≤ 1 s
Interface Signals	Analogue outputs	2-wire 4–20 mA signal input (Isolated, Max. load 750 Ω)
	Relay output	3-wire relay (24 V,1A)
	Digital Communication	RS485/RS232/GPRS
	Analogue inputs	2-way 4–20 mA input (temperature-pressure compensation)
Laser Safety Standard	GB7247.1-2001 (idt IEC 60825-1:1993)	
Operating Conditions	Storage Temperature	-30 +60
	Ambient temperature	-40 +80
	EMC	IEC 6100-4-2, IEC 6100-4-3, IEC 6100-4-4, IEC 6100-4-5,IEC 6100-4-11
	Gas jet	0.3 0.8 MPa industrial nitrogen inlet and purification instrument gases, etc.
	Consumption	20 W
	Power	24 V DC (18-36 V DC), 220 V AC

Gas Detection Limits:

Detection Gas Type	Detection Limit	Detection range
O_2	0.01% Vol.	(0-1)%Vol., (0-100)%Vol.
CO_2	10 ppm	(0-1000)ppm,(0-100)%Vol.
H_2S	20 ppm	(0-2000) ppm, (0-100)%Vol.
HCl	0.1 ppm	(0-50) ppm,(0-100)%Vol.
NH_3	0.1 ppm	(0-10) ppm, (0-100)%Vol.
C_2H_2	0.1ppm	(0-10) ppm, (0-100)%Vol.
CO	10 ppm	(0-1000) ppm, (0-100)%Vol.
H_2O	0.3 ppm	(0-50) ppm, (0-100)%Vol.
HF	0.02 ppm	(0-5) ppm, (0-10000) ppm
HCN	0.3 ppm	(0-30) ppm, (0-1)%Vol.
CH_4	0.4 ppm	(0-40) ppm, (0-100)%Vol.
C_2H_4	0.6 ppm	(0-60) ppm, (0-100)%Vol.

Note:

1) The test conditions include a 1-meter optical path, 1 bar gas pressure, and a 300 K gas temperature.

Nanjing Kelisaike Safety Equipment Co., Ltd.

+86 25 8719 3262 manager@njklsk.cn multi-gasdetection.com

Bldg 12, 2 Qingshuiting West Road, Nanjing, Jiangsu, China, 211102