RS2600PAT Online Raman Spectroscopy Analyzer For Analysis Of Multiple Components In Reaction Gases Industrial Explosion-proof Design

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001
- Model Number: RS2600PAT
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Customized Packaging
- Delivery Time: 90-120 working days
- Payment Terms: TT
- Supply Ability: 20 PCS/90-120 days

Product Specification

- Laser Wavelength: 532nm
- Spectral Range: 200 ~ 4200 Cm-1
- Resolution: ≤ 8 Cm-1 At Full Spectral Range
- Power Supply: 100 ~ 240 VAC 50 ~ 60 Hz
- Analysis Time: 2 Seconds
- Measurement Uncertainty: ≤0.2%
- Air Circuit Interface: 6 Mm Standard Tube Fitting (3 Mm, 1/8", And 1/4" Are Optional)
- Unit Dimensions: 485 Mm (Width) × 350 Mm (Height) × 600 Mm (Depth)
- Highlight: **RS2600PAT Raman Spectroscopy Analyzer**, **Multiple Components Raman Spectroscopy Analyzer**

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Product Description

RS2600PAT Online Raman Multi-Gas Analyzer

JINSP® RS2600PAT multi-gas analyzer is based on Raman spectroscopy and can detect all gases except noble gases, enabling simultaneous online analysis of multiple gases.

It is able to detect the following multiple gaseswith a detection range from ppm to 100%:

*** Petrochemical industry: alkane, alkene and alkyne gases such as CH4, C2H6, C3H8, C2H4, etc.**

*** Fluorine chemical industry: corrosive gases such as F2, BF3, PF5, Cl2, HCl, HF, etc.**

*** Metallurgical industry: N2, H2, O2, CO2, CO, etc**

Technical Highlights:

- Multi-component: simultaneous online analysis of multiple gases
- Universal: >500 types of gases are detectable except noble gases
- No need for pressure control: Quantification is not affected by changes in sample gas pressure
- Rapid response: Complete a single detection within seconds
- Wide quantitative range: detection limit is as low as ppm level, and the measurement range can be as high as 100%

Specifications:

Components	N2, H2, O2, CO, CO2, H2S, CmHn, etc.
Analysis time	2 seconds
Measurement uncertainty	≤0.2%
Laser excitation wavelength	532 ± 0.5 nm
Spectral coverage	200 ~ 4200 cm-1
Spectral resolution	≤8 cm-1 at full spectral range
Air circuit interface	6 mm standard tube fitting (3 mm, 1/8'', and 1/4'' are optional)
Explosion-proof	ExdbebibmbpxbIICT4Gb / ExtbibmbIIICT135ºCDb
Input voltage	100~240 VAC,50~60 Hz
Sample gas temperature	-50 ~ 40 ºC
Sample gas pressure	1.0 MPa
Unit dimensions	485 mm (Width) × 350 mm (Height) × 600 mm (Depth)
Weight	40 kg

Features:

Quantitative model of multiple standard curves, combined with the chemometric method, establishes the relationship between the spectral signal (peak intensity or peak area) and the content of multi-component substances.
Changes in sample gas pressure and test conditions do not affect the accuracy of quantitative results.
No need to establish a separate quantitative model for each component.

Field of Applications:

Petrochemical field: Quantitative analysis of different Elements in Petrochemical Natural Gas
As a mixture of hydrocarbon components, the accuracy of qualitative and quantitative analysis of natural gas components directly affects the quality index of natural gas - calorific value.

Fluorine chemical industry: Detection of components in reaction and emitted gases of fluorine materials ; Monitoring of F2 , N2 , HF and other components in the fluorination process.

Metallurgical field;

Isotope gases.

Detection of Impurity Gases in Electronic Special Gases.


Multi-Gas Analyzer
RS2600PAT

Technical Highlights

Non-Destructive Gas Analysis

>500 types of gases are detectable, including diatomic gases (F_2, Cl_2, etc.) and isotopic gases (H_2, D_2, T_2, etc.)

Short Detection Time

Complete a single detection within seconds

Low Maintenance

Withstands high pressure, direct detection with no consumables (Chromatographic column, Carrier gas)

Wide Quantitative Range

detection limit is as low as ppm level, and the measurement range can be as high as 100%

Field of Application

Natural gas industry

Fluorine chemical industry

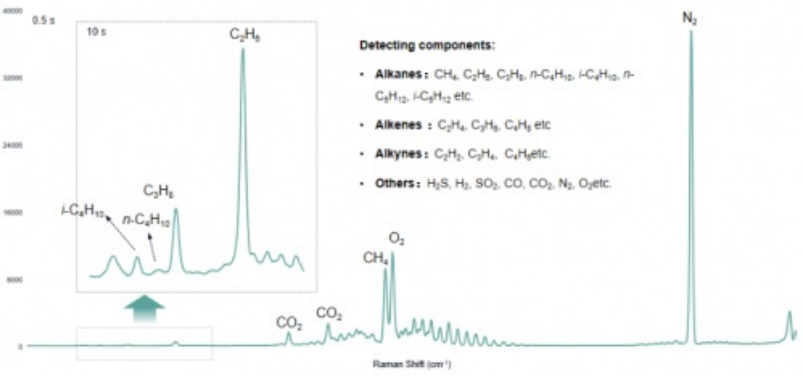
Metallurgical industry

Electronic special gas

Coal chemical industry

Pharmaceutical chemical industry

component	content
N_2	26.66%
O_2	6.36%
CO_2	1.13%
CH_4	65.26%
C_2H_6	0.54%
C_3H_8	170 ppm
n-C_4H_{10}	160 ppm
i-C_4H_{10}	160 ppm

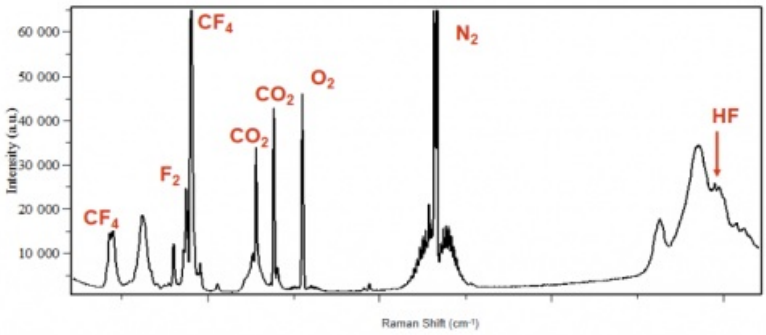


Detecting components:

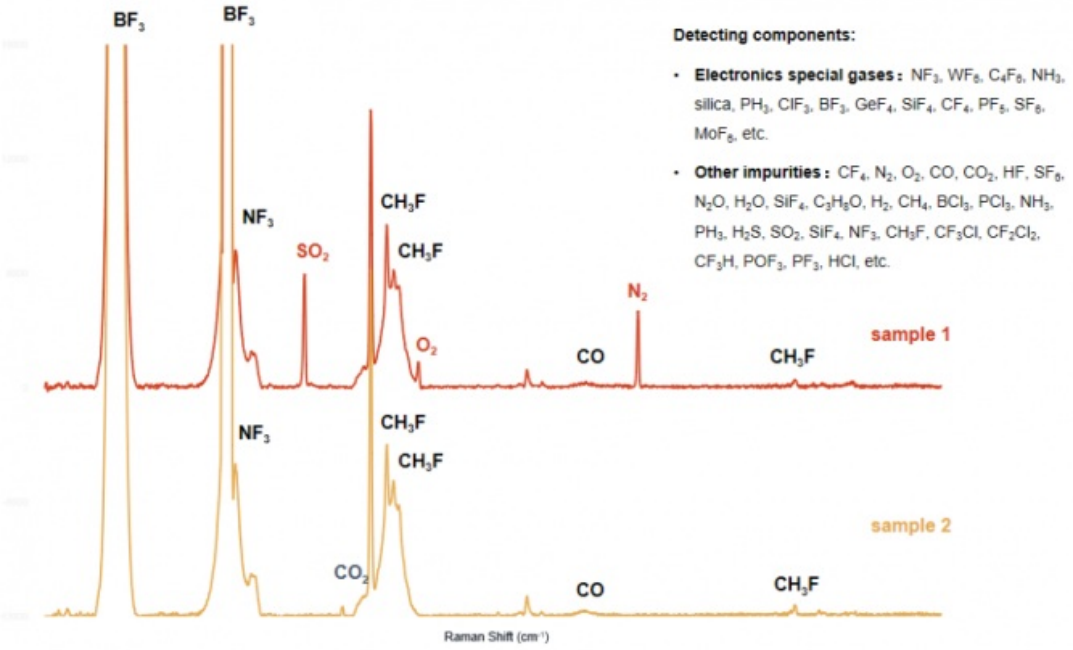
- **Alkanes:** CH_4, C_2H_6, C_3H_8, n-C_4H_{10}, i-C_4H_{10}, n-C_5H_{12}, i-C_5H_{12} etc.
- **Alkenes:** C_2H_4, C_3H_6, C_4H_8 etc
- **Alkynes:** C_2H_2, C_3H_4, C_4H_6etc.
- **Others:** H_2S, H_2, SO_2, CO, CO_2, N_2, O_2etc.

Quantitative analysis of different elements in petrochemical natural gas

component	content
F_2	2%
N_2	79%
HF	0.2%
CO_2	3%
CO	0.0%
O_2	3%
CF_4	10%



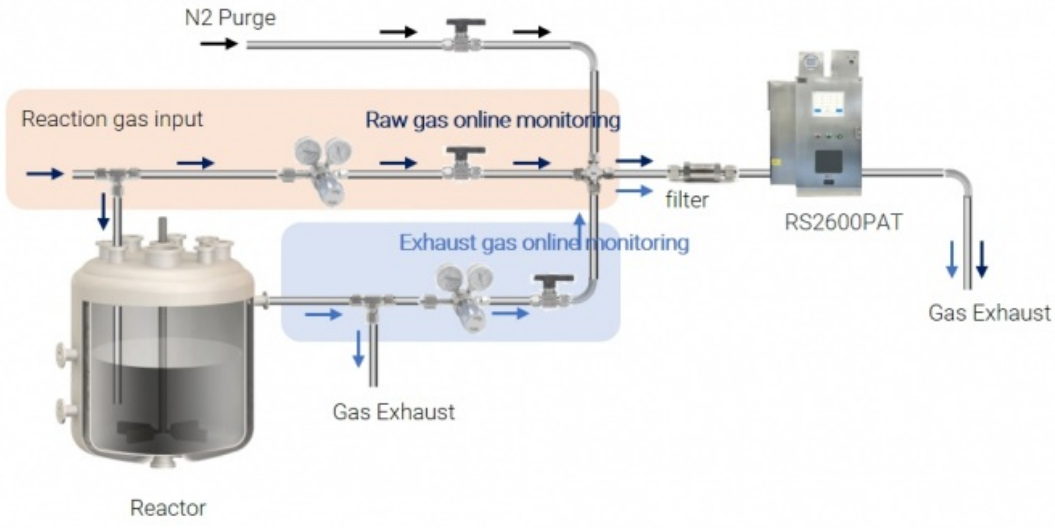
Monitoring of F_2, N_2, HF and other components in the fluorination process



Detection of impurity gases in electronic special gases

Usage/implementation:

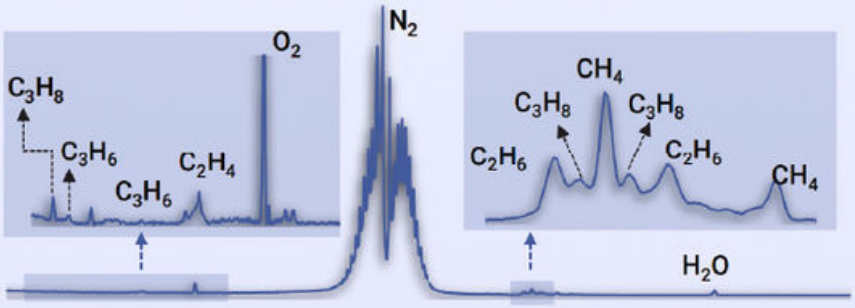
Through valve control, it can achieve the following functions:
• Monitoring the content of each component in the raw gas.
• Alarm notification for impurity gases in the raw gas.
• Monitoring the content of each component in the synthesis reactor tail gas.
• Alarm notification for the excessive emission of hazardous gases in the synthesis reactor tail gas.



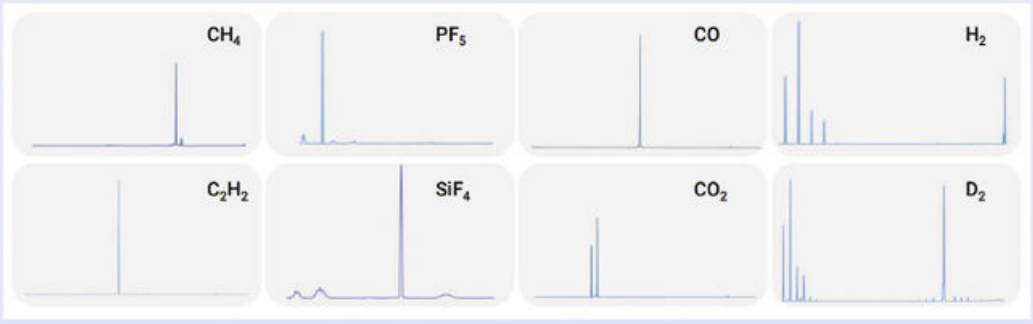
Typical Spectra

Gas Mixture Analysis

Component	Concentration (ppm)
CH_4	50
C_2H_6	30
C_3H_8	40
C_2H_4	15
C_3H_6	20



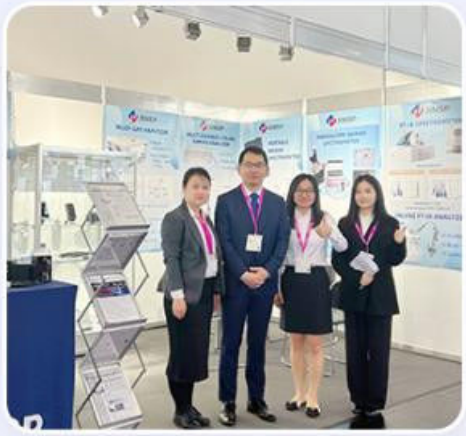
Standard Gas Spectra



JINSP Company Limited has won the National Science and Technology Commission's Scientific and Technological Achievement Appraisal Certificate and the China Patent Excellence Award, and related products have been obtained has won authoritative awards such as the Geneva International Invention Award, the Beijing New Technology and New Product Certificate, and the "Innovation Achievement Award" of the Zhu Liangyi Analytical Instrument Innovation Award.In addition, JINSP participated in the drafting of several national and international standards, including participating in the drafting of an international standard as the only participating unit in China IEC 63085 International Standard: System of spectral identification of liquids in transparent or semitransparent containers; Drafting of two national standards: GB/T 41086-2021 "General Technical Requirements for Safety Inspection Equipment for Hazardous Chemicals Based on Raman Spectroscopy", GB/T 40219-2021 "General Specification for Raman Spectrometer".

Company Profile

Exhibition



Certifications

FAQ

Q1: This is the first time I use it, is it easy to operate?
A1:We will send you a manual and guide video in English, it can teach you how to operate the spectrometer. Also, our technicians will offer professional technical operation meetings.

Q2: Can you offer an operation training?
A2: Your technicians can come to our factory for training. Jinsp engineers can go to your place for local support (installation, training, debugging, maintenance).

Q3: How to receive the best price in the shortest time?
A3: When you send us an inquiry, please kindly offer details with wavelength,detector, effective pixels, focal length, and so on. We will send you a quotation with details soon to your email.

Q4: What about quality assurance?
A5:We have a quality inspection team. All goods will go through quality inspection before shipment. We can send you pictures for inspection.

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