

Online Raman Spectroscopy Analyzer Fo Multiple Gases Industrial Explosionproof Design

Basic Information		
Place of Origin:Brand Name:	CHINA JINSP	
Certification:Model Number:	CE ISO9001 RS2600PAT	(iii) iii
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

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

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 gases with 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.

Multi-Gas Analyzer RS2600PAT



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%

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%

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 °C		
Sample gas pressure	1.0 MPa		
Unit dimensions	485 mm (Width) × 350 mm (Height) × 600 mm (Depth)		
Weight	40 kg		

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.

Field of Application



Natural gas industry



Metallurgical industry



Fluorine chemical industry



Electronic special gas



Coal chemical industry



Pharmaceutical chemical industry



Quantitative analysis of different elements in petrochemical natural gas







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.



About Raman Spectroscopy technology for gas analysis:

Raman Spectroscopy is a powerful analytical technique for all molecules;

Isomers and isotopic molecules have unique Raman spectra due to different molecular structures;

Raman shift corresponds to the vibrational or rotational energy levels of covalent bonds, directly reflecting molecular structural information such as functional groups;

It is a quantitative model (mathematical relationship between concentration and peak area) is established for simultaneous online analysis of multiple gases



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.

Typical Spectra

Gas Mixture Analysis

Component	Concentration (ppm)	
CH₄	50	
C ₂ H ₆	30	
C ₃ H ₈	40	
C ₂ H ₄	15	
C₃H 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



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.

JINSP JINSP Dispany Ltd.						
C	8618620854039	phoebeyu@jinsptech.com	e spectralanalyser.com			
21st Floor, Building D, Tsinghua Tongfang Science and Technology Plaza, Haidian District, Beijing China						