

785nm Laser Single Channel Online Raman Analytical Instruments For Liquids

Our Product Introduction

for more products please visit us on spectralanalyser.com

Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001
- Model Number: RS2000PAT
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: International Shipping Standard
- Delivery Time: 90-120 working days
- Payment Terms: TT
- Supply Ability: 50 PCS/90-120 days



Product Specification

- Laser Wavelength: 785nm
- Wavelength Accuracy: 0.2nm
- Wavelength Stability: 0.01nm
- Power Supply: 900 W (max) 500 W (typical Running)
- Number Of Detection Channels: 1 Single Channel
- Explosion Protection Rating (Main Unit): Ex Db Eb Ib Pzc C T4 Gc / Ex Ib Pzc Tb C
- Detection Accuracy: 0.5%
- Operating Temperature: -20 ~ 50
- Highlight: raman analytical instruments for Liquids,
Single Channel Raman Analytical Instruments,
785nm Laser Liquid Analyzer

Product Description

785nm Industrial Process Online Raman Analytical Instrument for Liquids

Industrial explosion-proof design can be used for online analysis of chemical product production processes, suitable for continuous flow reactors and batch reactors.

In the realm of chemical, pharmaceutical, and materials engineering, the production processes necessitate a constant and vigilant analysis and monitoring of the various components involved. JINSP emerges as a pivotal player by offering on-site, online monitoring solutions tailored specifically for production environments. These innovative solutions facilitate in-situ, real-time, continuous, and rapid online monitoring of the diverse components present within reactions. This comprehensive and ongoing analysis plays a crucial role in determining the precise reaction endpoint, thereby ensuring that the process concludes at the optimal moment. Additionally, these advanced monitoring capabilities aid in the early detection of any abnormalities or deviations in the reaction, thus allowing for prompt corrective actions to be taken. This not only enhances the efficiency and safety of the production processes but also contributes to the overall improvement of product quality and consistency.

JINSP® RS2000PAT online Raman analyzers provide in situ, real-time, and continuous composition analysis of chemical processes in the production environment.

RS2000PAT analyzers are highly suitable for dangerous chemical processes including nitration, chlorination, fluorination, hydrogenation, diazotization, etc. Available with both continuous flow processes and batch processes. RS2000PAT analyzers help increase process understanding and boost product quality.

Technical Parameters:

Technical Parameter	Value
Product	Online Raman Analyzer
Measurement Type	Raman Spectrometer
Laser wavelength	785nm
Sample Type	Liquid
Number of detection channels	1 single channel
Chamber dimension	600 mm(width)× 400 mm(depth)× 900 mm(height)
Device dimension	900 mm(width)× 400 mm(depth)× 1300 mm(height)
Explosion Protection Rating (Main Unit)	Ex db eb ib pzc C T4 Gc / Ex ib pzc tb C T130°C Dc
Operating temperature	-20 ~ +50
Thermostat	Three-level temperature control system design can operate stably for a long time in an environment of -20 ~ 50 , and is suitable for online monitoring environments in different factories
Connectivity	RS485 and RJ45 network ports provide Mod Bus protocol, can be adapted to many types of industrial control systems, and can feedback results to the control system.
Probe	One standard 5 m non-immersed fiber optic probe (PR100)
% Relative humidity	0~90%RH
Power supply	900 W (Max) 500 W (Typical running)
Pre-heating time	60 min

Advantages:

In situ: no sampling required, avoiding contact with hazardous samples

Real-time results: results provided within seconds

Continuous monitoring: continuous monitoring throughout the entire process

Intelligent: automatically provide analytical results

Internet connectivity: timely feedback of results to the central control system

Applications:

Li-ion battery industry

Biopharmaceutical industry

Quality Control in Biofermentation Engineering

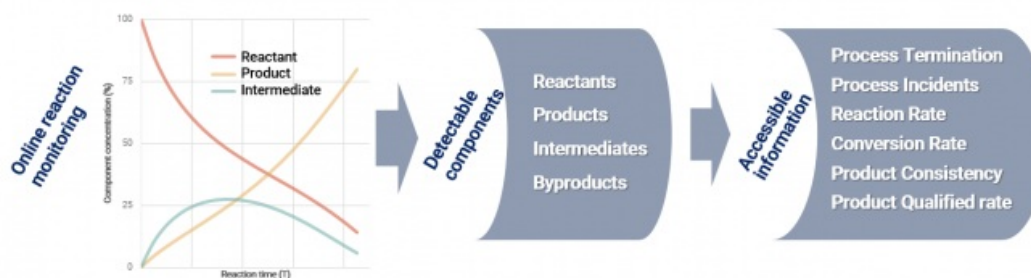
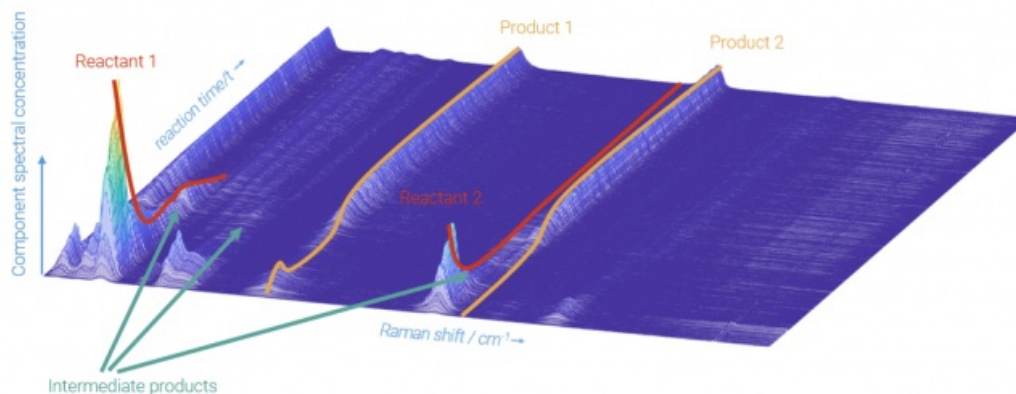
Fine chemical industry

Research on the process of producing furfuryl alcohol by hydrogenation reaction of furfural

For example: **Product quality/Consistency Control in Large-Scale Production**

In the large-scale production of chemical/biochemical processes, ensuring the consistency of product quality requires batch-by-batch or real-time analysis and testing of reaction products. Online monitoring technology can automatically check the quality control of 100% of batches due to its speed and continuity advantages. In contrast, offline detection techniques, frequently depend on sampling inspections, which expose non-sampled products to potential quality risks as a consequence of their intricate procedures and delayed outcomes.

Typical Users: Process production personnel in pharmaceutical and biopharmaceutical companies; production personnel in new materials and chemical enterprises.





Can withstand extreme reaction conditions such as strong acid, strong alkali, strong corrosiveness, high temperature, and high pressure



Real-time response in seconds, no need to wait, providing analysis results promptly.



No sampling or sample processing required, in-situ monitoring without interference to the reaction system.



Continuous monitoring to quickly determine the reaction endpoint and alert for any anomalies.

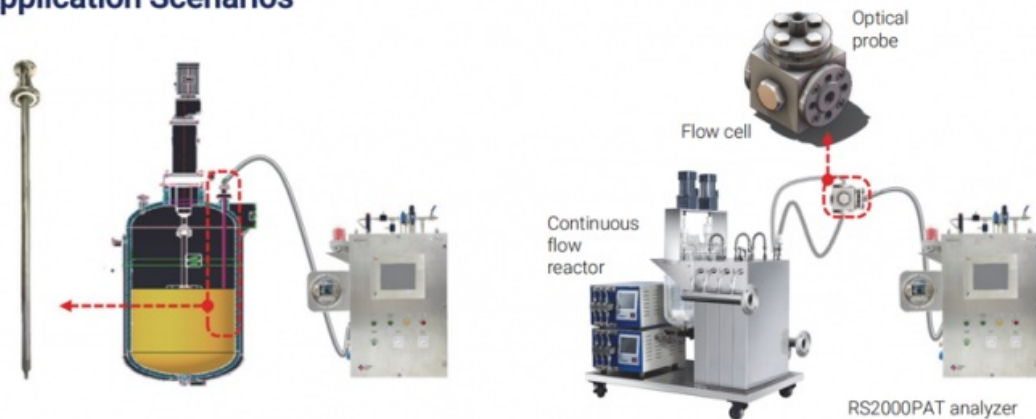
Usage models:

The RS2000PAT, a versatile instrument designed for extensive use in industrial settings, offers two distinct methods for integration into large-scale production processes. The first method involves the utilization of an industrial immersion long probe, which is specifically engineered to plunge deep beneath the liquid surface of the reaction system. This probe is adept at penetrating the depths to monitor and analyze the various reaction components in real-time. This approach is particularly well-suited for applications within kettle-type batch reactors, where the ability to reach deep into the reaction mixture is crucial for accurate monitoring and control of the chemical processes taking place.

The second method of employing the RS2000 APAT involves the use of a flow cell, which allows for the bypass connection of a probe for online monitoring. This setup is ideal for continuous flow reactors and other types of reaction vessels where the flow of materials is ongoing. By integrating the flow cell into the system, the instrument can provide continuous, real-time data on the reaction components as the materials flow through the reactor. This method ensures that any changes or adjustments needed during the reaction process can be made promptly, optimizing the efficiency and outcome of the chemical reactions.

Both methods of using the RS2000APAT cater to different types of reactors and production needs, making it a flexible and indispensable tool for industries that require precise monitoring and control over their chemical processes. Whether it's for batch or continuous flow systems, this instrument is equipped to deliver reliable and accurate data, ensuring that production goals are met with the highest standards of quality and efficiency.

Application Scenarios



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: If the spectrometer has a problem in my place, what could I do?

A4: The spectrometer has a one-year warranty. If it breaks down, our technician will figure out what the problem maybe, according to the client's feedback. We can repair for free within one year warranty.

Q5: 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 Company Ltd.

8618620854039

phoebeyu@jinsptech.com

spectralanalyser.com

21st Floor, Building D, Tsinghua Tongfang Science and Technology Plaza, Haidian District, Beijing China