

Industrial Process Online Raman Analyzer 785nm Laser Four Channel

Our Product Introduction

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Basic Information

- Place of Origin: CHINA
- Brand Name: JINSP
- Certification: CE ISO9001
- Model Number: RS2000TPAT-4
- 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: 785nm
- Wavelength Accuracy: 0.2nm
- Wavelength Stability: 0.01nm
- Power Supply: 900 W (Max) 500 W (Typical Running)
- Number Of Detection Channels: Four-channel Switching Detection
- Explosion Protection Rating (Main Unit): Ex Db Eb Ib Pzc C T4 Gc / Ex Ib Pzc Tb C
- Detection Accuracy: 0.01%
- Operating Temperature: -20 ~ 50
- Highlight: **Online Raman Analyzer 785nm,
Online Raman Analyzer Four Channel,
Online Raman Analyser 785nm**



Product Description

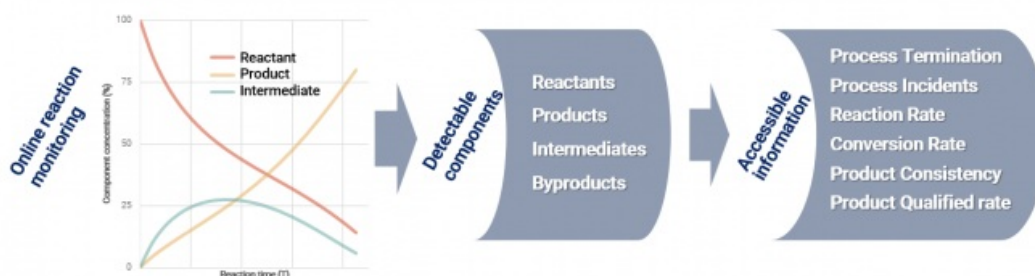
785nm Laser Four Channel Ultra High Sensitivity Industrial Process Online Raman Analyzer

Product Description:

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

JINSP® RS2000TPAT-4 online Raman analyzers provide in situ, real-time, and continuous composition analysis of chemical processes in the production environment.

RS2000TPAT-4 analyzers are highly suitable for dangerous chemical processes including nitration, chlorination, fluorination, hydrogenation, diazotization, etc. Available with both continuous flow processes and batch processes. RS2000TPAT-4 analyzers help increase process understanding and boost product quality.



Features:

- **In situ:** This innovative approach eliminates the need for sampling, thereby preventing any potential exposure to hazardous materials. By conducting measurements directly at the location of interest, it ensures a safer and more efficient process without the risk of contamination or sample degradation.
- **Real-time results:** The system is designed to deliver instantaneous results, providing data within mere seconds. This rapid response capability ensures that decisions can be made promptly, enhancing overall operational efficiency and reducing downtime.
- **Continuous monitoring:** The technology enables constant surveillance throughout the entire process, ensuring that any changes or anomalies are detected immediately. This continuous monitoring approach guarantees that the system operates within optimal parameters, maintaining high-quality output consistently.
- **Intelligent:** The system is equipped with advanced analytical capabilities, automatically processing and interpreting data to provide accurate results. This intelligent feature reduces the need for manual intervention, streamlining the analysis process and minimizing human error.
- **Internet connectivity:** With the ability to connect to the internet, the system ensures that results are communicated to the central control system in a timely manner. This connectivity feature allows for remote monitoring and management, providing real-time feedback and enabling quick adjustments to be made as needed.



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.

Technical Parameters:

Technical Parameter	Value
Product	Online Raman Analyzer
Measurement Type	Raman Spectrometer
Laser wavelength	785nm
Sample Type	Liquid
Number of detection channels	Four-channel switching detection
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	The 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

Applications:

Li-ion battery industry

Research on the synthesis process of bis(fluoro sulfonyl)amide

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: Chemical Reactions/Biological Processes Require Timely Intervention in Case of Anomalies or Reaction Endpoints.

In processes such as biological fermentation and enzyme-catalyzed reactions, the activity of cells and enzymes is easily influenced by relevant components in the system. Therefore, real-time monitoring of abnormal content of these components and timely intervention are crucial for maintaining efficient reactions. Online monitoring can provide real-time information about the components.

Typical Users: Research and production personnel in biotechnology companies, pharmaceutical/chemical enterprises involved in enzyme-catalyzed reactions, as well as peptide and protein drug synthesis enterprises.



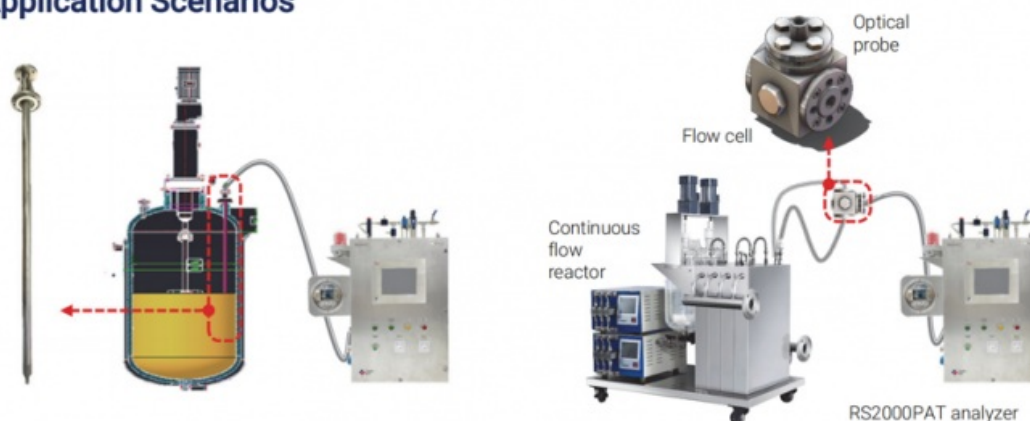
Usage models:

The RS2000TPAT-4 can be used in two ways in large-scale production.

The first way is to use an industrial immersion long probe to go deep below the liquid surface of the reaction system to monitor the reaction components, which is more suitable for kettle-type batch reactors;

The second way is to use the flow cell to bypass to connected probe for online monitoring, which is more suitable for continuous flow reactors and other types of reaction vessels.

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.



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