

#### **Optic Spectrometer For Industrial Applications**, Universal Compact Fiber **Optic Spectrometer**

#### **Basic Information**

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:
- Minimum Order Quantity:
- Price:
- · Packaging Details:
- Delivery Time:
- 30-50working days • Payment Terms: T/T, Western Union
- Supply Ability:



#### **Product Specification**

- Wavelength Range:
- Detector Type:
- Optical Design:
- Grating Slits:
- Weight:
- Dimension:
- Interface:
- Optical Interface:
- Highlight:

200-1100nm

CHINA

JINSP

SR75C

Negotiable

**Customized Packaging** 

100 PCS/70-90 days

CE

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- Linear Array CMOS, Hamamatsu S11639
- Type M C-T Light Path
  - 10µm, 25µm, 50µm, 100µm, 200µm (customizable)
  - 310g
  - 110mm\*95mm\*43mm
  - USB 2.0
- FC/PC Or SMA905
  - Compact Fiber Optic Spectrometer, Universal Fiber Optic Spectrometer, Industrial Optic Spectrometer



DINSP





OEM miniature spectrometer high-sensitivity fiber spectrometer optic spectrometer

The compact size of this device is truly remarkable, housing a high-sensitivity linear array sensor that is capable of covering an extensive range. This sensor is not limited to just the visible spectrum; it also extends its capabilities into the ultraviolet and near-infrared regions. Specifically, it can detect wavelengths ranging from 200 nanometers all the way up to 1000 nanometers, making it a versatile tool for a variety of applications.

Moreover, this advanced sensor is equipped with USB connectivity, which greatly simplifies the process of integrating it into industrial systems. Its compatibility with USB interfaces ensures that it can be easily connected to computers and other control devices, facilitating seamless data transfer and control. This feature is particularly advantageous for industrial integration, as it allows for straightforward incorporation into existing setups without the need for extensive modifications or specialized hardware.

In summary, this compact yet powerful sensor is designed to meet the demands of modern industrial applications. Its broad spectral coverage, combined with convenient USB connectivity, makes it an ideal choice for applications requiring precise and efficient detection across multiple spectral ranges. The ease of integration and control further enhances its appeal, ensuring that it can be quickly and effortlessly incorporated into various industrial processes.

# High-resolution Fiber **Optic Spectrometer**

### **High resolution Low noise**



No	Item	Description
1	Chip Type	Linear array CMOS, Hamamatsu S11639

2	Effective Pixel	2048
3	Sensing Area	28.7mm *0.2mm
4	Optical Design	M Type C-T light path
5	Numerical Aperture	0.085
6	Entrance Slit Width	10µm, 25µm, 50µm, 100µm, 200µm (customizable)
7	Dimensions	110mm*95mm*40.5mm
8	Weight	310g

#### **Typical Applications**

• LIBS (Laser-Induced Breakdown Spectroscopy): This advanced technology is utilized extensively in the field of geological detection and mining-related activities. It plays a crucial role in analyzing the chemical composition of soil and minerals. By employing high-energy laser pulses, LIBS can vaporize a small amount of the sample, creating a plasma that emits light. The spectral analysis of this light reveals the elemental composition of the material being tested, making it an invaluable tool for tasks such as mineral exploration, soil contamination assessment, and geological mapping.

• Water Quality and Environmental Protection: In the realm of environmental monitoring, LIBS technology is instrumental in the online detection and continuous monitoring of organic substances and dissolved oxygen levels in various water bodies. This real-time analysis is essential for assessing the health of aquatic ecosystems, ensuring compliance with environmental regulations, and facilitating timely interventions to prevent or mitigate pollution. By providing instant data on water quality parameters, LIBS helps in maintaining the balance of natural water resources and supports efforts in water conservation and protection.

• Flue Gas: The monitoring and identification of components in flue gas emissions are critical for environmental compliance and industrial safety. LIBS technology is employed to analyze the composition of gases released from industrial processes, such as combustion in power plants or waste incineration. By identifying and quantifying various components, including harmful pollutants like sulfur dioxide, nitrogen oxides, and heavy metals, LIBS enables the implementation of effective emission control strategies. This contributes to reducing the environmental impact of industrial activities and helps in achieving regulatory standards for air quality, thereby protecting public health and the environment.

# **Typical Applications**



Flue Gas: Monitoring and identification of components in flue gas emissions.

Detection of absorptance, transmittance, and reflectance in ultraviolet, visible, and near-infrared spectra





LIBS: Used for analyzing soil and minerals in geological detection and mining-related work.

Water Quality and Environmental Protection: Online monitoring of organic substances and dissolved oxygen levels in environmental water.





Light source and laser wavelength identification

#### **Technical Characteristics**

- Wide Spectral Range Supports customized spectrum range of 200-1000nm
- High Signal-to-Noise Ratio Low-noise CMOS signal processing circuit, with excellent signal-to-noise ratio
- High Resolution M-shape C-T optical design

# **Technical Characteristics**



Test results and applications in the range of 200~1000nm

### High Signal-to-Noise Ratio

Low-noise CMOS signal processing circuit, with excellent signal-tonoise ratio



Low Noise: Dark noise standard deviation is approximately 20 for 10ms

### **High Resolution**

M-shape C-T optical design





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.GB/T 40219-2021 "General Specification for Raman Spectrometer".

### **Company Profile**



#### FAQ

- Q1: Is the price of this product negotiable?
- A1: Yes, the price of this product is negotiable.
- Q2: What are the payment terms for this product?
- A2: The payment terms for this product are T/T and Western Union. Q3: What is the supply ability for this product? A3: The supply ability for this product is 100 PCS/70-90 days.

- Q4: How long does it take to deliver this product?
- A4: The delivery time for this product is 30-50 working days.
- **Q5: How is this product packaged?** A5: This product is packaged according to customized packaging.

