



FL- NIR 8900

Near-Infrared Spectroscopy Fiber Analyzer

The FL-NIR 8900 Near-Infrared Spectroscopy Fiber Analyzer (NIR Fiber Analyzer) is a smart tool. It uses near-infrared spectroscopy, with a wavelength range of 780–2500 nm. This device quickly analyzes textile fiber materials without causing damage. It mainly analyzes the content ratios of various fiber components in textiles. This includes cotton, polyester, nylon, wool, and viscose. It can be used for both fabric and finished garment fiber content analysis. It's faster than traditional chemical methods, taking only seconds. Besides, it's eco-friendly and non-destructive. It's often used in textile testing labs, quality inspection teams, clothing brand labs, and university research.

FL- NIR 8900

Near-Infrared Spectroscopy Fiber Analyzer



- **Fast, accurate, and reliable detection.**

The process takes only a few seconds to complete. High-quality detector tech and accurate optical systems offer great sensitivity and a wide detection range. The FL-NIR-8900 provides precise and dependable measurement results. The device provides excellent performance for both fast sample testing and thorough analysis of intricate components.

- **No reliance on human experience.**

The identification of wool and cashmere through conventional methods relies on human expertise. The diameter and fiber shape assessment needs expert examination through a microscope. It can be hard to spot samples that have had a lot of post-processing. The process creates substantial difficulties for bulk raw material quality control. The near-infrared method enables fast judgments through modeling. This reduces reliance on human experience and boosts management efficiency and accuracy.

- **Intelligent System, Easy to Operate**

The FL-NIR-8900 also excels in ease of operation. The user-friendly interface and smart software help everyone, from beginners to experts, easily manage the testing process.

- **Automatic calibration, durable, and long-lasting.**

The device's auto-calibration and fault diagnosis cut maintenance costs and boosted work efficiency. The FL-NIR-8900 runs in low-energy mode. The product contains a long-life light source that minimizes its environmental impact—the device's durability and reliability lower long-term costs for users.

**Power**

220V 50/60Hz

**Weight**

18kg

**Dimension**

540*380*220 mm(W*D*H)

Analyzable Components (Model Matching)

Single group	Cotton/ Polyester/Viscose/Nylon/ Acrylic/Wool/Mulberry Silk
Double group	Nylon/Spandex; Viscose/Spandex ; Nylon/Viscose; Cotton/Polyester; Cotton/Spandex; Polyester/Spandex
Triple group	Cotton/Polyester/Spandex; Viscose/Polyester/Spandex; Viscose/Nylon/Spandex; Polyester/Nylon/Spandex

The Specification of FL-NIR 8900 Fiber Content Analyzer

Instrument Model	FL-NIR 8900 (Third-generation)
Measurement Method	Grating Integrating Sphere Diffuse Reflection
Wavelength Range (nm)	900~2500
Resolution	Superior to 10nm
Wavelength Accuracy(nm)	≤0.4
Wavelength Repeatability(nm)	≤0.04
Stray Light%	≤0.1
Absorbance Noise (Abs)	≤5×10 ⁻⁵
Sampling Spot Diameter	50mm
Analysis Time	1 min(adjustable)
Data Transmission Method	USB2.0+USB3.0
Calibration Technology	Modified Partial Least Squares (MPLS) Regression Calibration Technique DPLS Spectral Identification and Qualitative Analysis Technology
Environmental Temperature°C	5~35
Relative Humidity %RH	5~85