Double Beam UV-Vis Spectrophotometer

Model **UV-1900i** | Brand **Master Science** | Unit **Pc**



UV-Vis spectrophotometer

The spectrophotometer offers excellent performance, data compliance, and intuitive operability. The UV-1900i boasts a high resolution of 1 nm, the lowest level of stray light and noise in its class, as well as an ultra-fast scan function allowing for data acquisition at 29,000 nm/min.

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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Scan to view online

Overview

It also features a multi-language interface that is easy to use while providing a diversity of measurement modes such as photometric, spectrum, quantitation, kinetics, time-course, and bio-methods. The UV-1900i is capable of high-accuracy quantitative analysis, detection of low-concentration components, and can perform analysis compliant with Pharmacopeia (JP, USP, and EP). The standard LabSolutions UV-Vis control software provides labor-saving measurements and allows for efficient analysis and integrated data management.

The UV-1900i is suitable for various applications, including pharmaceuticals, life sciences, food and beverage analysis, and chemical research. Its combination of high resolution, low stray light, and user-friendly interface makes it a valuable tool for both routine and research laboratories.

Technical Specifications

GENERAL	
General	Wavelength Range190 to 1,100 nm
General	Spectral Bandwidth1 nm
General	Wavelength Accuracy±0.1 nm at D2 peak 656.1 nm; ±0.3 nm for the entire range
General	Wavelength Repeatability±0.025 nm
General	Photometric Range-4 to 4 Abs
General	Photometric Accuracy±0.0015 Abs
General	Stray Light0.5% max at 198 nm
General	Scan SpeedUp to 29,000 nm/min

DIMENSIONS & WEIGHT	
Dimensions	W450 x D501 x H244 mm
Weight	16.6 kg

Easy to Operate, Obtain Answers Easily and Rapidly

Ergonomic Hardware Design
The control panel is ergonomically designed and positioned at the optimum viewing angle for the user. Users can operate easily with any posture. Since the panel is pressure-sensitive, the device can be operated with gloved fingers or a stylus pen. The stylus pen can be stored right next to the control panel.
Easy-to-Use Interface
The UV-1900i on-screen user interface includes large, easy-to-see icons deployed on a black background, so the instrument settings are evident at a glance. In addition, the large, easy-to-see icons improve intuitive understanding, which enables users to quickly become familiar with the operations. Furthermore, the user interface is designed to minimize transitions between windows, so users do not get confused during the operations.
Navigation Tabs Improve Usability
In quantitation mode on the UV-1900i, the stages of the entire measurement process and the current status are always shown on the display. As a result, users know immediately what to do in the next step.
High Performance to Meet Diverse Needs
Spectra can be acquired as fast as 29,000 nm/min. Ultra-fast scan is effective in tracking chemical reactions in a short time. In addition to the absorbance change at specified wavelengths, spectra can also be acquired in a short time with the UV-1900i. Therefore, more detailed behavior can be investigated by observing spectra with the UV-1900i.
Low Stray Light
Stray light is at 0.5% max. (198 nm), making accurate measurements possible up to the vicinity of 2 Abs even in the ultraviolet region. High-concentration samples can be quantified accurately.
High Reproducibility and Repeatability Accuracy
The calibration curve for caffeine, created with absorbance at 273 nm, provides a lower limit of quantitation determined from the standard deviation at 0.0051 mg/L.
A Diversity of Measurement Modes
The UV-1900i offers various measurement modes including photometric, spectrum, quantitation, kinetics, time-course, and bio-methods.

Compliance & Validation

- Instrument validation functions compliant with JP, USP, and EP standards.
- Supports database management, user authority management, and data audit trails to comply with FDA 21 CFR Part 11, PIC/S GMP guidelines, and other ER/ES regulations.
- The instrument provides full support for Pharmacopeia, GLP/GMP, FDA 21 CFR Part 11, and other regulations.