

Spectrophotometer UV-1900



UV-1900 double-beam chromatograph

High productivity

The Czerny-Turner monochromator with LO-RAY-LIGH® diffraction grating guarantees a photometric reproducibility of 0.0002 Abs (at 0.5 Abs and 1.0 Abs) and a stray light level of 0.5% at 198 nm (CSI). The high photometric reproducibility ensures accurate quantitative measurements even of very dilute samples. The low stray light level enables accurate measurements in the range of 2 optical density units in the ultraviolet region. Now it is possible to quantitatively measure highly concentrated samples.

Ease of operation

The UV-1900's touchscreen display features large icons on a black background to reduce eye strain. The size of the icons makes it easier to intuitively understand the embedded software and allows users to quickly familiarize themselves with the operations. The user interface is designed to minimize the number of transitions between windows, so there is no confusion when selecting and performing operations.



Ultra-fast scanning

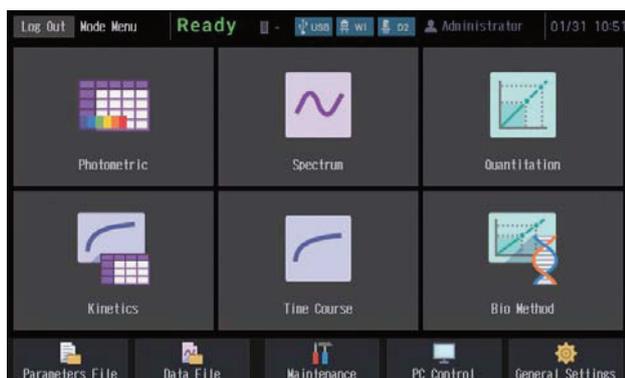
The spectrophotometer UV-1900 allows you to reach a scanning speed of 29,000 nm/min. It became easier to study unstable samples.

Compliance with regulatory requirements

Functions validation provide execution equipment checks in accordance with the requirements of the European, American and Japanese Pharmacopoeia. In combination with LabSolutions DB/CS software, FDA 21 CFR Part 11 and PIC/S GMP recommendations are followed.

Measurement modes

- **Photometric**
Measurement of optical density or transmittance at one or more (up to 8) selected wavelengths.
- **Spectral**
Scanning the sample in the range of wavelengths.
- **Quantitative**
Construction of a calibration curve based on measured standards followed by calculation of the concentration of an unknown sample.
- **Kinetic**
Registration of changes in absorbance, transmittance or energy over time and calculation of activity values, measurement of reaction rates.
- **Measurement of the main parameters over time**
Measurement at a given wavelength of the dynamics of changes in the main photometric parameters over time.
- **Bio-methods**
Determination of DNA and protein concentration.



Device control

The UV-1900 can be controlled both using the built-in software and using a PC and the UVProbe software. The presence of a built-in USB interface and USB control function allows you to easily connect a printer or a personal computer with a printer. The new generation of LabSolutions UV-Vis software is available as an option. In addition to the measurement and analysis functions, the ability to evaluate measurement results (pass/fail criteria) is available. Simple data export to text or table format increases work efficiency.

Convenient navigation

In quantitative analysis mode, all measurement steps and the current status are displayed on the display. As a result, the user immediately understands what needs to be done in the next analysis step.



Technical characteristics

Optical scheme	Dual beam
Measuring system	190-1100 nm
Detector	Silicon photodiode
The width of the gap	1 nm
Scanning speed	29000 nm/min
The level of scattered radiation	< 0.02%T at 220 nm (NaI) < 0.02%T at 340 nm (NaNO ₂) < 0.5%T at 198 nm (KSI)
Photometric range	from - 4.0 to + 4.0 Abs (from 0 to 400% T)
Photometric reproducibility	less ± 0.0002 Abs (at 0.5 and 1 Abs) less ± 0.001 Abs (at 2 Abs)
Zero line stability	< 0.0003 Abs/h (700 nm)
Noise level	< 0.00005 Abs (700 nm)
Size	450 x 501 x 244 mm
Weight	16.6 kg



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