



UV-1200

A multi-purpose spectrophotometer for work in the UV and visible range of the spectrum

Designed for quantitative analysis, the UV-1280 compact spectrophotometer enables UV and visible rhenium measurements in the UV and visible spectral range from 190 to 1100 nm. The spectrophotometer is ideal for solving routine tasks in factory or research laboratories, food industry and ecomonitoring laboratories, as well as biological/biotechnological research centers.

The presence of a built-in keyboard and a graphic liquid crystal display allows you to control the device's operating modes and print the results at an intuitive level.

The spectrophotometer UV-1280 has a built-in I58-interface and I58-control functions, which simplifies data transfer to a personal computer or connecting a printer for printing out all data displayed on the screen - spectra, measurement results, calibration curves, etc.

The built-in software allows you to work in the following modes:

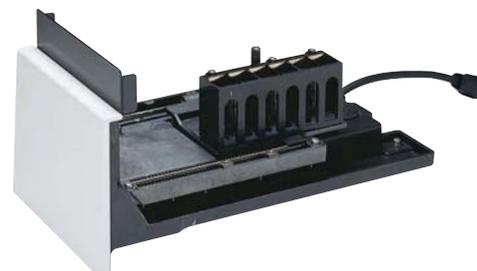
- **photometric** - measurement of spectra transmission and absorption of samples at a given wavelength or several (up to 8) wavelengths. Determination of concentration by the Kfactor method;
- **spectral** - measurement of the absorption spectrum transmission in a given range with the possibility of further processing of the spectrum (determining the position of maxima and minima, arithmetical operations, etc.);
- **quantitative** - construction of a calibration schedule for by the method of least squares (linear dependence or using equations of the 2nd and 3rd order using standard samples with a known concentration (from 2 to 10 samples), and then determining the concentrations of unknown samples;
- **kinetic** - measurement of absorption value, transmission or energy depending on time, calculation of the amount of enzymatic activity; the choice of a method of measuring the reaction rate, which determines the linearity of the change in the amount of absorption (transmission or energy)
- **scanning in time** - assessment of optical changes density, transmittance or measure as a function of time;
- **multicomponent analysis** - quantitative determination of concentrations DNA and proteins using a variety of methods that are included in the standard complex: built-in software
- **bio-methods** - quantitative determination of concentrations DNA and proteins using a variety of methods that are included in the standard complex: built-in software

The easy-to-use cuvette compartment of the device allows you to easily replace the standard 10 mm cuvette holder with various additional attachments:

- multi-cuvette holders, in particular microcuvette holders (from 50 µl) and cuvette holders with different optical path lengths (from 1 mm to 50 mm), with manual or automatic sample change;
- film holder;
- devices for thermostating cuvettes;
- flow cuvettes with automatic filling and washing;
- automatic dispenser (up to 100 or more samples).



4-cell holder with manual sample change



6-cell holder with automatic sample change

Technical characteristics

Optical scheme	«Pseudo-dual beam»
Measuring system	Single beam
Spectral range	190-1100 nm
Detector	Silicon photodiode
The width of the gap	5 nm
Scanning speed	from 1600 nm/min to 9 nm/min
Accuracy of setting the wavelength	±1.0 nm
Reproducibility on the wavelength scale	±0.3 nm
The level of scattered radiation	less than 0.05% (220 nm NaJ solution; 340 nm NaNO ₃ solution)
Photometric range	Absorption: -0.3-3.0 Transmission: 0.0-200%
Photometric accuracy	±0.003 Abs (at 0.5 Abs), ±0.005 Abs (at 1.0 Abs)
Photometric reproducibility	±0.002 Abs (at 1.0 Abs)
Baseline drift	± 0.001 Avs/h
Noise level	0.002 Abs (0.0005 Abs RMS)
Dimensions	416x379x274
Weight	10 kg



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