



# Specord® 200 Plus

## UV/Vis spectrophotometer for demanding analysis

The concept of the **Specord® 200 Plus** offers matching solutions for various applications. Very precise measurements, a very user friendly design and a large scale of available accessories guarantee absolute reliability for routine analysis as well as for sophisticated applications.

High quality materials, top-quality production and the attractive design ensure the longevity of a **Specord® 200 Plus**.

Combining a **Specord® 200 Plus** with the easy-to-use UVS data system for instrument control, data acquisition and analysis covers every field of routine analysis. The integrated formulae editor of the UVS data system allows you to automate any complex calculation. Even in the basic software UVS, every single result is conclusively traceable and thus fit for the demands of GLP. In addition, the 21 CFR part 11 compliant UVS X software meets the tightened demands of the FDA to the full extent.



**Specord® 200 Plus**

### Your benefits:

- high optical resolution
- pre-adjusted and voltage-stabilized light sources
- second cell position for the measurement of turbid samples
- very high data precision and stability ensured by the symmetric double beam optics

### Specifications:

**Wavelength range:**  
190 – 1100 nm

**Spectral bandwidth:**  
fix 1.4 nm

**Positioning Speed:**  
12000 nm / min

**Wavelength accuracy:**  
± 0.5 nm (Holmiumoxidfilter) <sup>(1)</sup>

**Wavelength precision:**  
± 0.02 nm (Holmiumoxidfilter) <sup>(1)</sup>

**Stray light:**  
< 0.03 % T (NaI @ 220nm)

**Photometric range:**  
± 3 Abs

**Photometric accuracy VIS <sup>(1)</sup>**  
< ± 0.003 Abs

**Photometric accuracy UV <sup>(1)</sup>**  
< ± 0.01 Abs

**Photometric precision:**  
< ± 0.0005 Abs

**Noise @ 500 nm:**  
< ± 0.0001 Abs (RMS)

**Drift @ 500 nm:**  
< ± 0.0005 Abs/h

**Light source:**  
Deuterium and tungsten-halogen

**Optics:**  
double beam; monochromator with holographic grating; beam splitting

**Spectral resolution:**  
1.6 to 1.8 @Toluene in Hexan

**Dimensions / Weight:**  
590 x 290 x 690 mm (W x H x D)  
27 kg

**Power Supply:**  
85 to 264 V / AC, max. 200 VA

<sup>(1)</sup> Including the tolerance of the used CRM

## Technical description:

### Sample compartment:

- Wide opening lid allows easy access, the removable side-panels are equipped with grommets of various sizes.
- A system on support-rails as optical bench carries the accessories, replacing an accessory does not require any tools.
- The optic is protected by quartz glass windows, placed in recesses of the sample compartment and thus preventing inadvertent contamination of optical components.
- Accessories:
  - Thermostatable 6-position and 8-position cell changers for use at sample- and reference-position
  - Sipper system for liquid handling
  - Integrating sphere for measurement of turbidity and solid samples in reflection mode.
  - Large variety of specific and individual sample holders and cell holders.

### Optical design:

- True double beam spectrophotometer with fixed slit and two large-sized photodiodes.
- Quartz coated optical components in high-quality encapsulation ensure extreme longevity.
- Monochromator with imaging holographic grating for stray light reduction.
- Minimized number of moving components for highest reliability.
- Outstanding signal-to-noise-ratio and high energy throughput.

### Instrument control and data acquisition:

- UVS data system for instrument control, data acquisition and analysis.
- Measurements at single or multiple wavelengths
- Integrated formulae editor for automated calculation even of complex correlations
- Spectra-scan with calculation of results based on extracted data
- Automated calculation of reaction ratios for kinetics, also for samples measured in parallel
- Complete traceability of the stored results by inseparable link to the method.

- Local database ensures data integrity by preventing manipulation of raw data and results

In addition, the 21 CFR part 11 compliant UVS X software features:

- Integrated user management with separate login and password, plus rights management according to the defined user rolls
- Complete and consistent audit trail
- Multi-level electronic signature

## Ordering information:

- 78-30001** Specord® 200 Plus  
double beam spectrophotometer
- 78-30003** 8-pos cell changer, thermostatable
- 78-30004** 8-pos cell changer with magnetic stirrer, thermostatable
- 78-30009** 6-pos cell changer, thermostatable
- 78-30200** UVS X 3 – 21 CFR Part 11 compliant Datasystem, incl. USB Dongle as software protection
- 78-30201** UVS 3 Datasystem, incl. USB Dongle as software protection

### Further accessories on request



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