
UVIKON XL UV/VIS Spectrophotometer

Overview

The UVIKON XL design is based on the UVIKON Simplicity Concept, which represents the first Spectrophotometer Series featuring Advanced Digital Signal Processing Technology.

The UVIKON XL uses state-of-the-art photomultiplier detection, in combination with the high-speed grating drive this permits optimised rapid scanning capability.

True Symmetrical Double-Beam Optics

The UVIKON optical design features true symmetrical double-beam optics using a single chopper wheel and detector. The speed of rotation of the chopper wheel allows for a measurement every 10 milliseconds on both the sample and reference channels.

This means that effectively all measurements are made in real time against the reference thus providing maximum confidence in the measured result.

High Energy Throughput

The UVIKON uses a high-efficiency grating designed by Zeiss for maximum energy throughput. This, combined with the specially designed high-speed grating drive motor, results in precise measured data not compromised by noise.

Large Sample Compartment

Total and easy access to the large sample compartment (140 mm deep, 332 mm wide and 162 mm high) with 120 mm beam separation provides for ease-of-use and great flexibility.

"Quick-Lock" Positioning

The three-point "Quick-Lock" positioning of accessories gives high reproducibility of results and also allows for fast exchange of accessories whenever required.

Protected Optics Area

Quartz windows at the entrance and exit points to the sample compartment prevent contamination of the optics area. The complete optical system is sealed against atmospheric contamination by dust and/or volatile sample compounds.

Thermally Isolated Lamp Housing

External positioning of the light source bench provides for thermal insulation of the optical bench.

Built-in Accessory Control

The UVIKON XL comes complete with a built-in accessory controller for control of the accessories, e.g. automated cell changer.



Specifications

Wavelength range	180 - 900 nm
Wavelength step	0.05 - 10 nm
Scan speed	5 - 5000 nm/min
Transfer speed	7000 nm/min
Spectral bandwidth	0.2 - 0.5 - 1 - 2 - 4 nm; Reduced height: 0.5 - 1 - 2 - 4 nm
Wavelength accuracy Holmium Oxide Filter	± 0.25 nm
Wavelength precision Holmium Oxide Filter	± 0.025 nm
Baseline flatness	< ± 1 mabs measured over 200-800 nm, 2 nm, 200 nm/min

Stray light NaI, 220 nm	< 0.015 %T
Linearity 250 nm, 2 nm, 1 sec.	3.3 Abs, ($r^2 \geq 0.999$)
Photometric range	± 5 Abs
Photometric accuracy	± 3 mAbs measured at 590 nm, certified 0.85 AU filter, 1 sec
Photometric precision	± 0.5 mAbs measured at 590 nm, certified 0.85 AU filter, 1 sec
Noise (RMS)	< 40 μ Abs measured at 580 nm
Drift	< 0.1 mAbs/hr measured at 580 nm after warm-up
Response time	0.02 - 5 sec
Light sources	Deuterium and Tungsten-Halogen lamps
Monochromator	High energy low stray light diffraction grating with 1300 lines/mm, 175 mm focal length
Dimensions	680 x 275 x 565 mm (W x H x D)
Weight	35 kg
All specifications may be subject to change for technical reasons.	

Ordering Information

99-90283	UVIKON XL Spectralphotometer (Includes LabPower Software Package, Standard Thermostatable Cell Holder compatible with Micro and Ultra Micro Cells, Accessory Controller to allow connection of all UVIKON accessories)
91-00580	Double Magnetic stirrer accessory (variable speed)
91-00616	Magnetic stirring bars (x5), size: 8 x 3 mm
91-00606	Quick-Lock cell holder for cells up to 20 mm pathlength, water thermostatable
91-00610	Thermostation fluid connection block
91-00601	Quick-Lock long path rectangular cell holder for cells up to 100 mm pathlength
91-00603	Quick-Lock long path cylindrical cell holder for cells up to 100 mm pathlength
91-00624	Quick-Lock solid sample holder
91-00586	Quick-Lock automatic/manual cell changer, water thermostatable. Modes [6+6]-[6+1]-[2(5+1)]
91-00607	Temperature sensor for cell holder
91-00608	Inert glass miniaturised temperature sensor for cell content
91-91465	ThermoPack Peltier thermoregulated bath from 20 to 60°C
91-91637	ThermoSystem Peltier thermoregulated 6x6 cell changer 0 to 100°C and 12 position Stirrer
91-91671	Peristaltic sipper thermostatable (requires one circulation cell)
H-176703	x1 standard quartz flow cell for sipper volume 160 μ l, 10 mm pathlength, Z 15 mm
91-91672	Integrating Sphere, 200-850 nm, diameter 63,5 mm, Photomultiplier R928
91-91673	Non-calibrated Spectralon reflectance standard

91-91274	Calibrated Spectralon reflectance standard
91-91262	1" Diameter cone-type light trap
91-91268	Powder and cream cell holder
96-90275	Pre-adjusted halogen lamp for UVIKON XS or XL
96-90297	Pre-adjusted deuterium lamp for UVIKON XS or XL