



UVIKON XL spectrophotometer*

The UVIKON concept represents the first spectrophotometer serie featuring **Advanced Digital Signal Processing** technology.

ADSP ensures reliable data acquisition, a superb sensitivity and very low instrument noise to obtain consistent linear measurements even at high OD values. UVIKON XL in combination with the easy-to-use Windows compatible LabPower Junior software package supports the entire range of daily routine applications.

With its large variety of accessories the UVIKON XL fulfills all instrument requirements for advanced and routine applications.

- Variable slit to allow high resolution spectra acquisition.
- Photomultiplier technology for high sensitivity and linearity.

UVIKON XL features the following 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; 0.5-1-2-4 nm, red height
Wavelength accuracy with holmium oxide filter peaks at 10 nm/min, 1 nm, 0.05 nm/step	± 0.25 nm
Wavelength precision with holmium oxide filter shoulder at 444.4 nm, 2nd wavelength 536.7 nm, speed 7000 nm/min	± 0.025 nm
Baseline flatness, 200-800 nm, 2 nm, 200 nm/min	± 1 mAbs
Stray light, NaI, 220 nm, 1 nm, 1 sec	< 0.015 %T
Linearity, 250 nm, 2 nm, 1 sec, $r^2 > 0.999$	3.3 Abs
Photometric range	± 5 Abs
Photometric accuracy, 0.85 Abs certified filter, 1 sec, 590 nm	± 3 mAbs

Photometric precision, 0.85 Abs certified filter, 1 sec, 590 nm	± 0.5 mAbs
Noise (RMS), measured at 580 nm for 5 min, 2 nm, 1 sec	40 µ Abs
Drift, 580 nm, 2 nm, 1 sec after a 2 hours warm-up	< 0.1 mAbs/h
Response time	0.02-10 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	W 680 mm x D 565 mm x H 275 mm
Weight	35 Kg net
Mains Power	100/240VAC ±10% 50/60 Hz
Power Consumption	Max. 200 VA

* Display sold separately. See configuration on back page

Advanced Power in UV/Vis Spectroscopy

UVIKON XL



Sample Compartment

- 140 mm depth, 332 mm width, 162 mm height, with 120 mm beam separation.
- Easy access: front top and back covers are quickly removable.
- Three point positioning of accessories for high reproducibility of results.
- Quartz windows at the beam entrance and exit to the sample compartment prevent the optics from being contaminated.

Accessories

- Thermostatable standard cell holder directly useable with micro and ultramicro cells for small samples.
- Large family of optional Quick Lock accessories including a variety of cell holders, stirrer, thermostatable automatic cell changer, temperature sensor, thermostatable sipper, Thermopack and Thermosystem (Peltier technology).
- Integrating sphere for turbid samples and data acquisition in reflection mode (solid sample and powders).

Environment

- Operating temperature: 15 to 30°C.

Optical Design

- Well proven true symmetric double beam optics with only 6 reflecting surfaces per beam.
- High-energy diffraction Zeiss™ monochromator design using a holographic blazed grating with 1300 lines per mm.
- Very sensitive photomultiplier with a rotating chopper providing 100% energy in sample and reference beams plus dark current correction.

- External source bench providing thermal insulation with optical bench and isolation of the whole photometric assembly against contamination by ozone emitted by deuterium lamp.
- Optical bench base manufactured to a tolerance of 0.01 mm in 1 meter.
- Complete optical system sealed against atmospheric contamination from dust and volatile compounds.

Configuration requirements

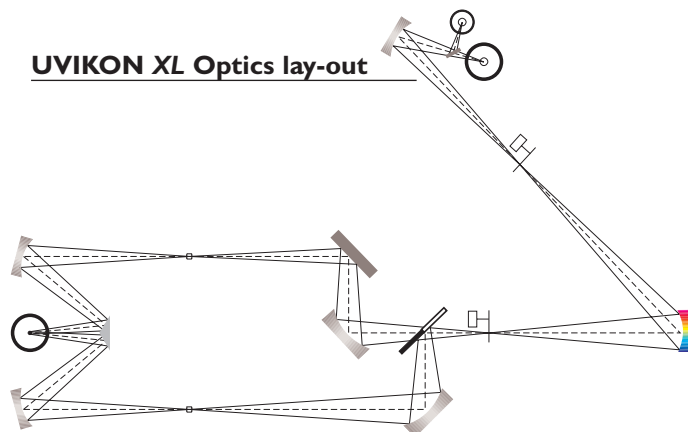
- Pentium PC with 64 MB of RAM, 50 MB of free disk space, 1 free RS232 Port and Windows NT/2000 or XP as Operating System, Desktop Computer or Notebook.
- Optional printer: all standard Windows Printers.

Ordering information

- 70/99-90283 UVIKON XL (CE)
 - 70/99-90383 UVIKON XL (UL/CSA)
- Includes LabPower Junior Software Package*, Standard Thermostatable Cell Holder compatible with Micro and Ultra Micro Cells, Accessory Controller to allow connection of all UVIKON accessories.

* Packages includes: LabPower Junior software, DNA/RNA and validation applications.

UVIKON XL Optics lay-out



Routine Power in UV/Vis Spectroscopy

UVIKON XS



The UVIKON concept represents the first spectrophotometer serie featuring **Advanced Digital Signal Processing** technology.

ADSP ensures reliable data acquisition, a superb sensitivity level to allow linear measurements even at high OD values, and a very low instrument noise. UVIKON XS in combination with the easy to use Windows compatible LabPower Junior software package supports the entire range of daily routine applications.

Benefits:

- 100% symmetric true double beam technology for high data precision and stability.
- Rotating mirror (chopper) system to achieve reliable data even in concentrated samples.

UVIKON XS features the following specifications

Wavelength range	190-1100 nm
Wavelength step	0.05-10 nm
Scan speed	5-2000 nm/min
Transfer speed	5000 nm/min
Spectral bandwidth	1.8 nm (fixed)
Wavelength accuracy with holmium oxide peak, 10 mm/min and 0.05 nm step	± 0.3 nm
Wavelength precision with holmium oxide peak shoulder, 7000 nm/min	± 0.03 nm
Baseline flatness, 200-800 nm, 200 mm/min, 1 nm step	< ±1 mAbs
Stray light, NaI (10g/l), 220 nm, 1.8 nm, 1 sec	< 0.03 %T
Linearity, 250 nm, 1.8 nm, 1 sec, r ² >0.999	3.0 Abs
Photometric range	± 3.5 Abs
Photometric accuracy, 1 Abs NIST, 1 sec, 590 nm	± 3 mAbs
Photometric precision, 1 Abs NIST, 1 sec, 590 nm	± 0.5 mAbs

Noise (RMS) measured at 580 nm, 1 sec, ASTM E 685	Better than 30 µ Abs
Drift, 580 nm, 1.8 nm, 1 sec, after 2 hours warm-up	< 0.1 mAbs/h
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	W 680 mm x D 565 mm x H 275 mm
Weight	35 Kg net
Mains Power	100/240VAC ±10% 50/60 Hz
Power Consumption	Max. 200 VA

Routine Power in UV/Vis Spectroscopy

UVIKON XS

Sample Compartment

- 140 mm depth, 332 mm width, 162 mm height, with 120 mm beam separation.
- Total and easy access: front top and back covers are quickly removable.
- Three point positioning of accessories for high reproducibility of results.
- Quartz windows at the beam entrance and exit to the sample compartment prevent the optics from being contaminated.

Accessories

- Thermostatable standard cell holder directly useable with micro and ultramicro cells for small samples.
- Large family of optional Quick Lock accessories including a variety of cell holders, stirrer, thermostatable automatic cell changer, temperature sensor, thermostatable sipper, Thermopack and Therosystem (Peltier Technology).

Environment

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Optical Design

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- High energy diffraction Zeiss™ monochromator design using a holographic blazed grating with 1300 lines per mm.
- Very sensitive photodiode with a rotating chopper providing 100% energy in sample and reference beams plus dark current correction.
- External source bench providing thermal insulation with optical bench and isolation of the whole photometric assembly against contamination by ozone emitted by deuterium lamp.

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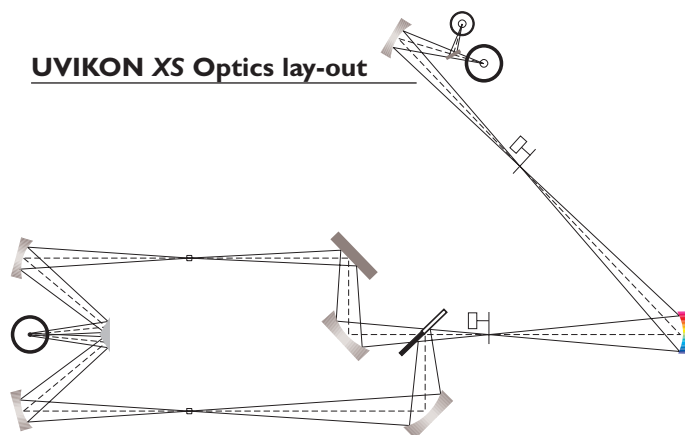
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 - 70/99-90382 UVIKON XS (UL/CSA)
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* Packages includes: LabPower Junior software, DNA/RNA and validation applications.

UVIKON XS Optics lay-out



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