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The photoLab® 7000 Series Spectrophotometers

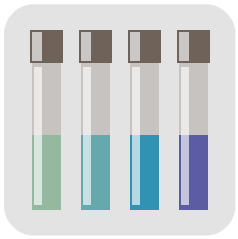
photoLab® 7100 VIS / photoLab® 7600 UV-VIS
PIONEERING COMBINATION OF ROUTINE AND SPECTRAL ANALYSIS

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a xylem brand

Modern Optics – Pio

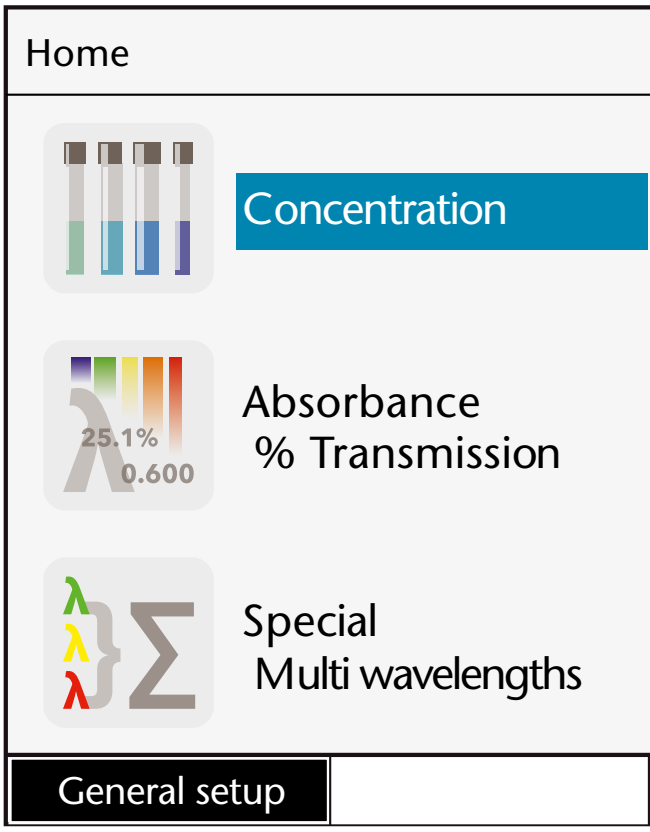
- Proven user guidance
- Highest precision
- Comprehensive AQA

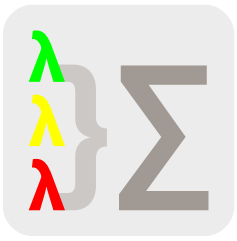


Lab routine becomes fun …

… your photometer does the rest:

- Barcode support for test kits in round **and** rectagular cuvettes
- Automatic cuvette recognition with 10, 20 and 50 mm cuvettes
- Automatic measurement range adjustment
- Automatically stored data and comfortable data management
- More than 200 methods including special procedures such as free Ammonia, CO_2, SAC and color
- Programming of user-defined methods





Complex procedures become a piece of cake …

… pre-programmed or easily programmable:

- Multi-step tasks with step-by-step data entry and operation: progammed with variables, operators and conditions.
- Calculation methods for multi-wavelength procedures

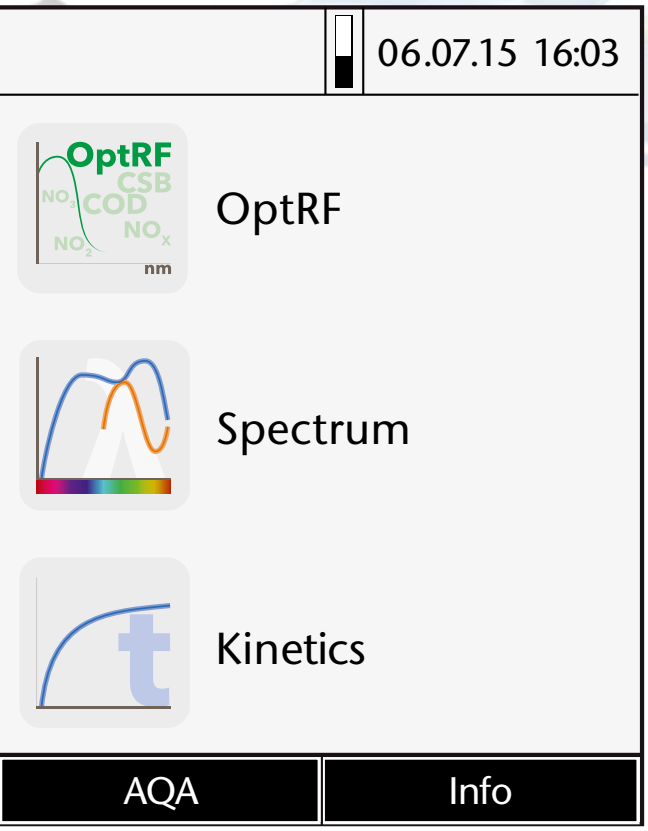


E and %T – the basis of all measurements



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neering Procedures



Faster than any digestion ...

... photoLab® 7600 UV-VIS's innovative **Opt**ical **R**eagent-**F**ree (OptRF) measurement:

Put sample into quartz cuvette, select method, read result:

- COD, NO_3, and NO_2 via spectral photometric measurement in the UV-VIS range is a quick, additional control measurement. They can be used for fast verification of official reporting data and retainer samples.
- Automatic evaluation of spectra with instant readings
- User-calibration for higher accuracy readings
- Eco-friendly minimisation of reagents and tests
- Linking IQ Sensor Net to photometric methods

Kinetics – Chemical Reaction Rates ...

... optional catalytic activity calculation

- At room temperature (approx. 20-25°C)
- Storage of user profiles



Spectra from QC to R&D ...

... offering storage of user profiles and data processing:

- Profiles with color assignment
- Editing profiles (addition, comparison, ...)
- Readings in absorbance or % transmission

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Spectrophotometers for Routine and Spectral Analysis with proven AQA

photoLab® 7100 VIS covering the range from 320 to 1100 nm. Universal instrument suitable for all routine measurements with test kits, in service labs, industry and R&D, wherever the UV range ist not needed.

photoLab® 7600 UV-VIS covering the range from 190 to 1100 nm. Ideal for additional self-control with optical reagent-free methods (OptRF) and UV-VIS procedures for many applications.

Technical Data

	photoLab® 7100 VIS	**photoLab® 7600 UV/VIS**
Wavelength range	320–1100 nm	190–1100 nm
Optics	Monochromator with grating and step motor / reference beam	
Lamp	Tungsten-halogen	Xenon flash lamp
Display	Backlit 7" colour display for extensive graphical evaluation	
Bandwidth	4 nm	
Measurement	Concentration, absorbance, % transmission, kinetics and spectra in Abs or %transmission, multi-wavelengths and multi-step readings	
Scan speed	700–2000 nm/min, Scans in 1, 2, 5, 10 nm steps of wavelength range	
Wavelength accuracy/ reproducibility	± 1 nm / < 0.5 nm	
Photometric accuracy/ reproducibility	– 0.003 E for E < 0.600; 0.5 % of values for 0.600 < E < 2.000	
Cuvette	16 mm round, 10 mm, 20 mm, 50 mm rectangular with automatic detection w/o adapter	
Bar code	Automatic method recognition including measurement range for all cuvettes	
Data storage	5000 measurement values, spectra and kinetics approx. 40 MB => 500 spectra (300–900 nm) and 400 kinetics with 150 measurement values	
Methods and profiles	> 200 pre-programmed methods, 1000 user-defined methods, 20 profiles for kinetics and spectra, comprehensive programming options	
Interface/update	1 USB-A, 1 USB-B, 1 Ethernet / Update via Internet and USB stick	
IP Class	IP 30 including drainage in optical compartment	
Power Supply	Universal power supply, optional supply via standard adaptor cable for car batteries	
Temperature Range	Operation: +10 °C to +35 °C, Storage: –25 °C to +65 °C	
Weight / Dimensions	approx. 4.5 kg / 404 mm width x 197 mm height x 314 mm depth	
Accessories	PC software photoLab® Data *spectral*+photoLab® color, field case, checking tools for AQA	

Order Information

Model	**Description**	**Order No.**
photoLab® 7100 VIS	Spectrophotometer for Routine and Spectral Analysis in the VIS range from 320-1100nm	250 203
photoLab® 7600 UV-VIS	Spectrophotometer for Routine and Spectral Analysis in the UV-VIS range from 190-1100nm	250 204
photoLab® Data *spectral*	PC software for easy data management, extended with photoLab® color (photoLab® color available in September 2015)	902 761

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