

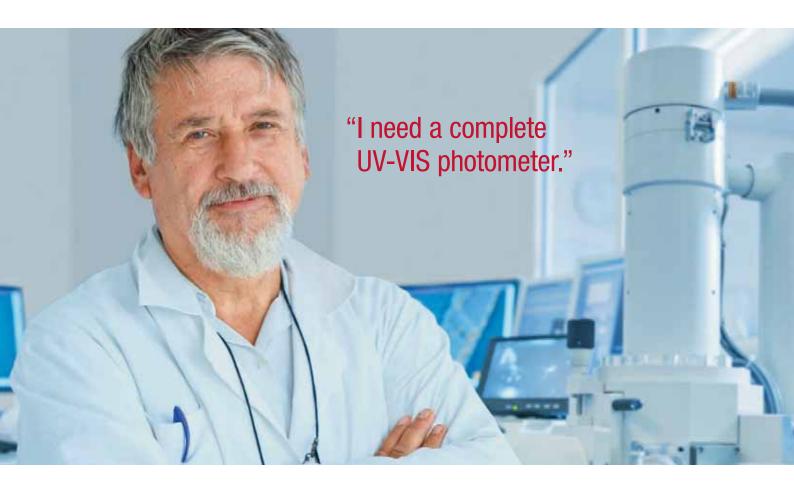
# Diving into a new dimension: Quality meets efficiency

DR 6000 UV-VIS spectrophotometer



## Combining quality and cost-effectiveness

The new DR 6000 UV-VIS spectrophotometer delivers top performance for both routine laboratory tasks and demanding photometry applications.



The new fourth generation DR 6000 is engineered and manufactured in Germany to deliver exceptional analytical accuracy. The Czerny-Turner monochromator design reduces aberrations and guarantees a spectral bandwidth of <2 nm. The output coupler mirror optimally aligns the measurement beam.

Four sequential band-pass filters reduce internal scattered light to <0.05% and allow the detection of measurement signals in the range of  $\pm 3$  Abs. The reference beam technology compensates for signal fluctuations in the instrument. Two low-noise silicon detectors ensure high selectivity and basic stability of the measurement signal.



### Improved laboratory efficiency

The new DR 6000 UV-VIS spectrophotometer unites reliable results with efficiency. The intuitive menu navigation with the 7" colour touchscreen allows you to enter and calibrate your own methods in just a few simple steps. To help you save time, the instrument is pre-programmed with 240 methods including TOC, surfactants and nutrient parameters. Application packages, e. g. for enzymology and colorimetry, open up further application opportunities to you, including drinking water and brewery analysis. By combining fast scans and simple LIMS integration, the DR 6000 enables laboratories to work at peak efficiency.



"For me, quality and cost-effectiveness must be right."

### Reliable results from the cuvette

Ready-to-use reagents from HACH LANGE guarantee quality and are officially recognised as an equivalent alternative to the standard method.

Independent round robin tests show that the results of cuvette tests are comparable with those of standard methods. Due to this HACH LANGE ISO-COD test carries the ISO seal.

Your benefit: comparability of results

The ready-to-use, high-precision pre-dosed cuvette tests guarantee the most reliable results. The coordinated system of reagents and the DR 6000 photometer considerably reduces the number of working steps. The integrated masking of matrix interference guarantees a broad application spectrum. The DR 6000 detects the cuvettes immediately upon insertion and automatically calls up the corresponding calibration curve. One further plus of the cuvette tests is the RFID identification which documents the shelf life of the cuvettes and ensures the traceability of your analyses.

Your benefit: dependable and reliable results

## ISO 15705



"Is there an equivalent alternative to my standard analysis?"

"I must be able to trust my results at all times."

#### Transparent working processes in every situation

The DR 6000 is fully automated. Nevertheless, it allows you to monitor all steps of the processes – even with the use of cuvette tests. With the DR 6000, you can access the calibration data, the batch number, the measurement process and the raw data at any time. All data can be called up with one key press for verification on the large display.

For quality assurance RFID identification is used to read and transfer batch certificates, quality data and target values for standards.

Your benefit: transparency in the process





Your Standard Control Chart is available at all times.

## Finally time for what is important

The DR 6000 is efficient, simple to use and helps you save time for all standard and application specific analyses.



The optimised data management and simple operation of the DR 6000 save valuable time. For data processing the DR 6000 has three USB ports and an Ethernet interface for fast data retrieval and real-time data transfer. The DR 6000 is LIMS-compatible (Laboratory Information Management System). In addition the intuitive user navigation via icons and plaintext prompts on the large display reduces training requirements to a minimum and makes the DR 6000 easy to operate for your team.

Your benefit: optimised data management



"Only when everything fits are the measurement values also correct."

### Systematic quality and efficiency

Only a perfect interaction guarantees the highest efficiency and accuracy – starting with the individual components of the DR 6000 up to the interaction with you and your laboratory equipment. HACH LANGE delivers to you a perfectly coordinated system – as a developer, manufacturer, and sales and service partner.

Cuvette test in standard-

comparable quality

ADDISTA standards, spiking and round robin test solutions



 Test filter set for internal quality control

 LT 200 thermostat for digestions

 Sipper module for serial analysis



Carousel holder, e.g. for enzymology Application software, e.g. for drinking water and breweries

LCI 50



Service packages and extended warranty up to 5 years



Assurance of legal compliance, together with environmental protection via collection service for recycling of used reagents



Seminars and workshops: Practical and hands on training

#### DR 6000 UV-VIS technical data

Display mode Optics

Wavelength range Wavelength accuracy Wavelength reproducibility Wavelength resolution Scan speed Spectral bandwidth Photometric measurement range Photometric accuracy Photometric linearity Scattered light Photometric drift Long-term stability Measurement technology

Modules

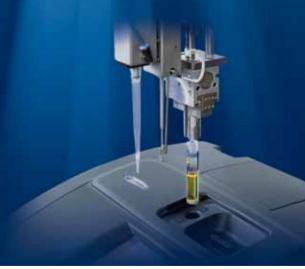
Test recognition

Data storage User programmes Dimensions / weight Interfaces

Transmission (%), absorbance, concentration Deuterium lamp (UV), halogen lamp (VIS), Czerny-Turner monochromator, silicon photodiode detector 190–1100 nm ±1 nm (200-900 nm) 900 nm/min (in 1-nm increments) ±3 Abs (200–900 nm) 5 mAbs at 0.0-0.5 Abs, <1% at 0.5-2.0 Abs at 546 nm <0.5% to 2 Abs,  $\leq$ 1% at >2 Abs with neutral glass at 546 nm KI solution at 220 nm <3.3 Abs / <0.05% ±0.0034 Abs Zero point at 546 nm for 10 hours ≤0.0034 Abs Reference beam technology for compensation of lamp ageing and mains fluctuations Adapter for rectangular cells (10 mm, 20 mm, 50 mm, 1 inch) and round cells (1 inch); carousel holder for seven rectangular cells (10 mm), e.g. for enzymology; sipper module for pour-through cells IBR+ barcode reading system for automatic recognition of 2D barcode cuvette tests 5000 measurement values, 50 scans, 50 time intervals  $215 \times 500 \times 460$  mm (H  $\times$  W  $\times$  D) / 11 kg

2 × USB type A, 1 × USB type B, 1 × Ethernet

For large samples use the Laboratory Robot to achieve fully automated sample preparation and cuvette testing.





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