



DR4900 Laboratory Spectrophotometer, with camera

Product #:	LPV451.99.00121
ZAR Price:	Contact Hach
Available	

Bringing Effortless Accuracy to Your Lab

Built on the trusted legacy of the DR3900, the DR4900 Spectrophotometer increases analytical reliability and strengthens your laboratory's operational performance. Engineered for routine and high-throughput water analysis, the instrument combines stable optics, automated verification functions, and streamlined workflows to deliver consistent, traceable results across a wide range of parameters.

Accurate, reproducible data is fundamental for laboratory oversight. The DR4900 reduces sources of analytical variability by integrating diagnostic controls, guided workflows, and an interface designed to standardize testing steps. The result is fewer repeat analyses, reduced operator-dependent variation, and better confidence in day-to-day results.

The DR4900 Lab Spectrophotometer with a built-in workflow camera features barcode-based TNTplus vial recognition. The system automatically identifies the correct method for each vial, minimizing manual errors and ensuring compliance and method traceability.

Technical Innovations That Protect Data Integrity

10-inch High-Resolution Touchscreen

The large, full-color display enables rapid navigation of analytical steps, clear visualization of spectral data, and fast review of sample information. The modern UI is optimized for multi-operator labs, reducing training time and minimizing navigation errors.

Integrated Turbidity Diagnostics

Optical monitoring verifies whether sample turbidity may interfere with TNTplus vial measurements. The system alerts the operator when filtration or additional sample preparation is recommended, helping maintain result accuracy in samples with suspended solids.

Temperature Monitoring for Vial Tests

An integrated temperature sensor evaluates vial temperature prior to measurement. This helps ensure that exothermic reactions or insufficient equilibration times do not impact analytical output, particularly important for temperature-sensitive colorimetric methods.

With more than 250 pre-programmed Hach methods, including a broad range of regulatory-relevant parameters, the DR4900 supports standardized workflows and consistent method execution. Its robust optical design and built-in diagnostics help maintain instrument performance over time, giving you greater oversight and control over daily testing operations.

Trust the DR4900 Lab Spectrophotometer to deliver reliable, repeatable water quality data while improving analytical efficiency across your laboratory.

Proven Technology, Modern Interface

The DR4900 Spectrophotometer maintains the trusted core of the DR3900, now enhanced with a 10” screen and modern user interface that helps reduce training time and speed up routine workflows. It’s the familiar performance lab professionals trust—elevated for modern needs.

Ensuring Reliable Results with Unrivaled Diagnostic Features

Temperature and turbidity diagnostics help prevent common testing errors -- reducing rework and ensuring consistent accuracy. When using Hach TNTplus vial chemistries, the DR4900 automatically checks the temperature and turbidity of your test, providing you with alerts when out of range, giving you the confidence you need in every measurement.

Complete Confidence - From Start to Finish

DR4900 users benefit from end-to-end expertise across instruments, chemistries, and service. So you get faster resolutions, deeper insights, and consistent results from a single partner.

DR4900 options to fit your workflow

Two versions of the DR4900 are available: one without an external camera (LPV451.99.00021) or with an external camera (LPV451.99.00121) to enable Smart Workflow features including Certificate of Analysis QR code scanning and Sample ID Text Recognition.

- Without Camera (LPV451.99.00021)

Delivers the full DR4900 analytical performance and error prevention features for routine lab workflows

- With Camera (LPV451.99.00121)

Includes all DR4900 performance features plus an external camera that enables Smart Workflow capabilities such as Certificate of Analysis QR code scanning and Sample ID Text Recognition - reducing manual data entry and supporting documentation tracking directly at the instrument.

Specifications

Accuracy:	±1.5 nm (340 - 900 nm)
Altitude:	2000 m maximum
Camera:	Yes
Certifications:	CE, UKCA, CMIM, FCC, ISED, certified to UL and CSA safety standards by TÜV
Data Logger:	> 10,000 measured values (measured values, date, time, sample ID, user ID)
Dimensions (H x W x D):	226 mm x 255 mm x 344 mm
Display:	25.4 cm
Enclosure rating:	IP20
Indoor/Outdoor:	Indoor
Interfaces:	Use only shielded cable with maximum length of 3 m for:
	USB type A and type C (front side)
	USB type A and type C (back side)
	Use only shielded cable (e.g., STP, FTP, S/FTP) with maximum length of 20 m for:
Light source:	1x Ethernet
	Halogen lamp
	10 - 40 °C, maximum 80% relative humidity, non-condensing
	Transmittance (%), absorbance (Abs) or concentration
Optical System:	Reference beam, spectral

Over voltage category:	II
Photometric Accuracy:	5 mAbs at 0.0 - 0.5 Abs
	1% at 0.50 - 2.0 Abs
Photometric Linearity:	< 0.5% - 2 Abs
	≤ 1% at > 2 Abs with neutral glass at 546 nm
Photometric Measuring Range:	±3.0 Abs (340 - 900 nm)
Pollution Degree:	2
Power requirements (Hz):	50/60 Hz
Power requirements (Voltage):	100 - 240 VAC
Power Supply:	Benchtop Power Supply
Preprogrammed methods:	# 240
Protection Class:	Class I
Sample Cell Compatibility:	Rectangular: 10 mm, 50 mm, 1 inch
	Round: 13 mm, 16 mm, 1 inch
Scanning Speed:	≥ 8 nm/s (in increments of 1 nm)
Spectral Bandwidth:	5 nm
Storage conditions:	-40 - 60 °C, maximum 80% relative humidity, non-condensing
Stray Light:	< 0.1% T at 340 nm with NaNO ₂
User programs:	# 100 user programs
Warranty:	12 months
Wavelength Accuracy:	± 1.5 nm (wavelength range 320 - 1100 nm)
Wavelength Calibration:	Automatic
Wavelength Range:	320 - 1100 nm
Wavelength Reproducibility:	± 0.1 nm
Wavelength Resolution:	1 nm
Wavelength Selection:	Automatic, based on the procedure selected
Weight:	4.8 kg
What's included?:	Spectrophotometer DR4900; adapter "A" for 1 inch round cell, 10 mm rectangular cell + Accuvac vials; sample cells (matched pair); light shield; dust cover; power cord with country-specific adapter plug; power adapter; camera; user manual

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