TITERTEK BERTHOLD

Colibri Microvolume Spectrometer

For DNA, RNA, Protein and More.

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Imagine the speed and precision of a hummingbird, a rock solid optomechanical setup, and everything inside of a tiny housing – this is Colibri.

Colibri is only 16,5 cm wide

Smallest Sample Volumes
Even the smallest samples can be easily pipetted into the measurement position. The hydrophobic ring facilitates sample placement. After measurement, the sample can be wiped off or recovered.

High Dynamic Range
The optical pathlength can be set to 0,2 or 1 mm. A motor positions the sample chamber to the chosen pathlength with highest precision. For some protocols, the instrument can be set to automatically select the best pathlength.

Precise, Reproducible Measurement.
The compressed sample is surrrounded by inert materials. This eliminates evaporation of the free liquid column, which means there will be no increase of concentration and false results. Unlike conventional instruments, the surfaces do not require frequent reconditioning.

Intuitive Touchscreen Operation
In addition to the intuitive color touchscreen interface, entries can be made on softkeys, or on the optional computer mouse or even a separate computer keyboard, depending on the user´s preference.

Instant Setup
Turn on Colibri and you are ready to go. No extra PC, cuvette, or loose parts are required, and there is nothing to be connected.

Software
Colibri offers a comprehensive on-board software package:
Measurement data is organized and saved according to the project and can be retrieved at any time. With a 2 GB internal memory, this capacity will last for the life of the instrument. Samples can be named individually or automatically for later identification and reporting.
Reports are available on a printer or as CSV files. The printout is 112 mm wide, allowing for a layout in a convenient format. Alternatively, reports can be saved on a USB memory stick for further processing on a lab computer.
For measurement and calculation of concentrations, up to 9 preset protocols are available. Whereas DNA or RNA measurements do not require much calculation, protein measurements represent a wide field. Five protocol types take care of all known requirements, such as measurement at 280 nm, Bradford and Lowry methods, different dye labels and many more. Standard curve calculations include point-to-point, polynomial, sigmoid and exponential curves. For UV-VIS spectral measurement, a separate protocol is available.

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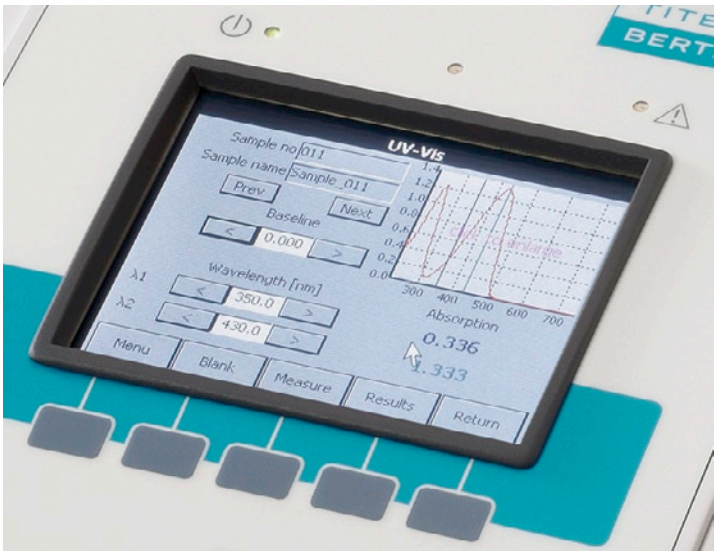
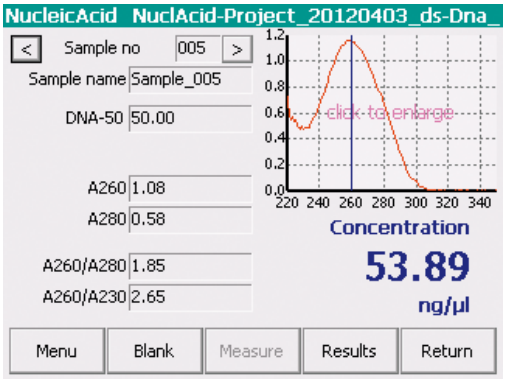
1 Optical-grade mirror behind sapphire glass **2** Permanent hydrophobic coating for easy sample placement



Powerful onboard software

Onboard computer, color touchscreen

Colibri Technical Data



Numerical and graphical measurement results on one screen.

Comprehensive report, convenient printout format.

Performance Data

Sample Volume	1–5 µl
Sensitivity dsDNA	2–3700 ng / µl

System Properties

Standalone Operation	Built-in software
User Interaction	Touchscreen and softkeys
Protocols	Nucleid Acid, Protein, Cell Lysate, UV-VIS
Report	Wide 112 mm printout with data and graph
Display	3,7“ color touchscreen
Interfaces	3 USB ports
Additional Data Input	Mouse and keypad options
Data Export	By USB memory stick, CSV format, data and graph

Optical Specifications

Pathlength	0,2 mm and 1 mm, autoselect function
Wavelenth Range	200–850 nm
Lamp	Xenon Flashlamp
Detector	2048 pixel array
Wavelength Accuracy	< 1 nm
Wavelength Resolution	3 nm
Photometric Range	0,02–75 OD (10 mm equivalent absorbance)
Photometric Accuracy	< 2% at 1,0 OD / 430 nm

General specifications

Dimensions	26,5 x 16,5 x 13,4 cm
Weight	2,5 kg
Power	Power supply, input 100–240 V AC, output 12 V, min. 2,5 A DC (included)
Printer	External printer (optional)

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