

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 surrounded 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 – Shortest Measurement Time

Turn on Colibri and you are ready to go.

The measurement time is less than 5 seconds.

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



Onboard computer, color touchscreen



Comprehensive report, convenient printout format

Colibri Technical Data

Performance Data

Sample Volume	1–5 µl
Sensitivity dsDNA	2 ng/µl
Measurement Time	< 5 s

System Properties

Sample Area	Permanent hydrophobic coating, no reconditioning required
Standalone Operation	Built-in software
User Interaction	Touchscreen and softkeys
Languages	English (default), multi-language capabilities
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

Optical Specifications

Pathlength	0.2 mm and 1 mm, autoselect function
Wavelength Range	220–750 nm
Lamp	Xenon Flashlamp
Detector	2048 pixel linear silicium CCD array
Wavelength Accuracy	< 1 nm
Wavelength Resolution	3 nm
Photometric Range	0.02–75 OD (10 mm equivalent absorbance)
Photometric Accuracy	< 1% at 1.0 OD/350 nm

General Specifications

Dimensions	27.5x16.5x13.5 cm / 10.4x6.5x5.3 inch
Weight	2.25 kg / 4.9 lb
Power	Power supply, input 100–240V AC, output 12V, min. 2.5A DC (included)
Printer	External printer Seiko DPU-S445 (optional)

Ordering Infos

110 501 40	Colibri Microvolume Spectrometer with on-board computer, software, touchscreen and softkeys
155 200 60	Colibri licence for activation of 1 additional language. Available languages: Chinese, Russian, Spanish, Portuguese, German, French, Italian, Polish, Turkish

Features and specifications are subject to change without notice.
The Colibri technology is covered by own patent.

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