

INTUITIVE & RAPID MICROVOLUME ANALYSIS OF DNA, RNA & PROTEINS

The Colibri+ Microvolume Spectrophotometer



BERTHOLD

GET CONFIDENCE IN THE QUALITY OF YOUR SAMPLE

Accurate DNA, RNA & protein quantification in less than 3 seconds

The Colibri+ system family takes microvolume quantification of DNA, RNA and protein samples to a whole new level. The system has been designed to help you accelerate your research by combining ultra-fast measurement in less than 3 seconds with intuitive 7-inch touchscreen stand-alone operation. Get confidence in the quality of your sample with reliable UV/VIS-spectroscopy from as low as 1 µl of sample and a CV of absorbance < 1%.

Whether you need microvolume measurement capability only, or the ability to perform measurements in cuvettes, the Colibri+ family offers you both options. The Colibri+ C provides a complete solution by integrating both fast microvolume measurement capabilities and a cuvette option. For laboratories that only require microvolume measurement capabilities, the Colibri+ standard model offers an affordable alternative.



DESIGNED TO SUPPORT YOUR RESEARCH

Whether you are performing real-time PCR, sequencing/ NGS, microarray or cloning experiments, the innovative features of the Colibri+ will help you to advance your application.

Colibri+ benefits at a glance

- **Fast measurement:**
read your samples in less than 3 seconds.
- **Reliable results:**
CV of absorbance < 1%.
- **Broad detection range:**
2 – 20,000 ng/μl for ds DNA and 0.06 – 600 mg/ml for BSA, saving you precious time by avoiding manual dilution errors.
- **Stand-alone operation:**
32 GB onboard memory, no computer required.
- **Intuitive operation:**
7" colour touchscreen and a wide variety of preprogrammed protocols simplify operation of the system.
- **Easy pipetting of samples:**
Sample Guide Light enables accurate pipetting, even in poor light conditions.
- **Cuvette option (Colibri+ C model only):**
with built-in 37- 45°C temperature control and stirring functions to meet specific applications. Perform kinetics, microarray and labeled protein analysis.



Easy pipetting of the sample

- **Sample Guide Light:** Your measurement starts with applying the sample. The innovative Sample Guide Light simplifies pipetting, even in poor light conditions (figure 1).

Figure 1: The Sample Guide Light enables easy sample application and helps you to detect even the smallest air bubbles. As a result, the quality of the measurement is significantly improved.

Accurate and reproducible measurements

▣ **Hydrophobic coating of sample window:**

The hydrophobic coating of the sample window supports the formation of a measuring column (figure 2) from the sample liquid after closing the detector arm.

▣ **Shock-absorbing detector arm:**

The shock-absorbing detector arm reduces shocks during its closure. This enables accurate measurement of samples even as little as 1 µl with a CV of absorbance < 1%.

▣ **Broad detection range:**

2 – 20,000 ng/µl for ds DNA and 0.06 – 600 mg/ml for BSA, saving you precious time by avoiding manual pipetting errors.

Know the quality of your sample

▣ **Preprogrammed applications:**

Poor sample quality can lead to poor results in subsequent workflows like real-time PCR quantification or NGS. The Colibri+ simplifies identification of contaminations in your samples by providing a wide variety of preprogrammed protocols for nucleic acids with QC ratios, proteins with QC ratios as well as further life science applications like protein assays (BCA, Bradford and Lowry) and cell culture OD₆₀₀ measurements.

▣ **UV-VIS spectral measurement:**

The Colibri+ provides a wide spectral range from 190 – 1,000 nm. This provides greater flexibility in the creation of custom protocols.

▣ **Flexible pathlength:**

Users can choose between the two path length options 0.5 mm and 0.05 mm. This enables measurement of highly concentrated samples without dilution.

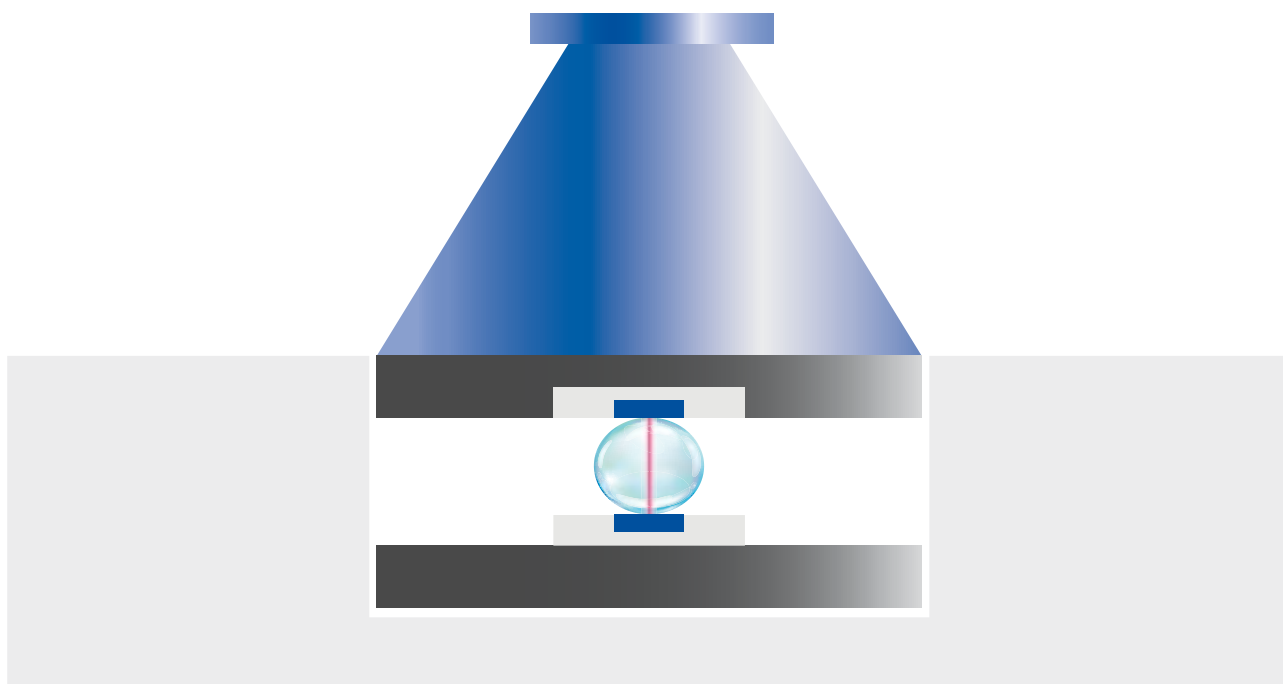


Figure 2: Hydrophobic coating of the sample window forms a measuring column when the shock-absorbing detection arm is closed. This supports the measurement of even highly concentrated samples and helps to avoid broken sample columns.

INTUITIVE OPERATION AT YOUR FINGERTIPS



Figure 3: Intuitive touchscreen operation and a wide variety of preprogrammed protocols simplify operation of the system.

Intuitive operation

The Colibri+ doesn't require a computer, saving precious lab space in combination with its small footprint of just 206 × 333 × 166 mm (W × D × H).

It is equipped with 32 GB of onboard memory. More than 500 user folders can be created, which can be password protected.

The intuitive 7" colour touchscreen operation enables you to analyze your samples with the touch of a button (figures 3 and 4).

The Colibri+ C model can be conveniently operated as a stand-alone device and can also be connected to a PC, e.g. to easily create reports.

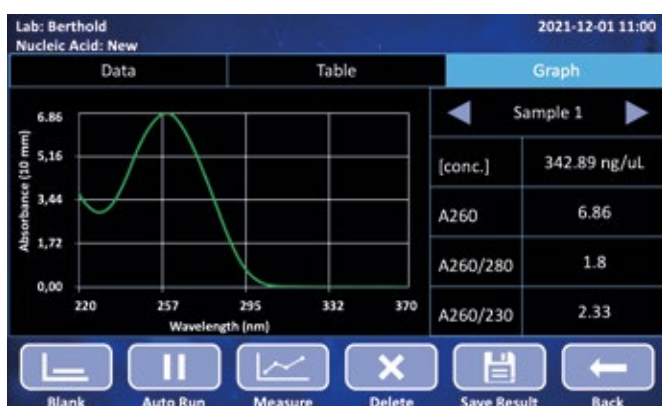


Figure 4: The graphical display offers easy and precise evaluation of your sample's quality.



COUNT ON OUR SUPPORT

Support

For more than 70 years, Berthold Technologies has been providing customers with life science system solutions. We understand that your applications are as individual as you are. Our dedicated technical specialists can work with you in partnership to overcome the unique challenges your application brings.

Contact our team to discuss

- ▣ Your assay or experiment design
- ▣ Data analysis questions
- ▣ Troubleshooting

Service

Berthold Expert Services provide a team of dedicated and factory-trained engineers and experts to optimize your productivity.

We and our local partners are always at your disposal.

Berthold Expert Services

- ▣ Maintenance & repair services
- ▣ IQ / OQ Services

HOW TO REACH US

Go to Contact us - Berthold Technologies GmbH & Co. KG to find your local support or technical support team.

For product FAQs, technical information, tips & tricks, go to Knowledge Base Bioanalytics - Berthold Technologies GmbH & Co. KG.



0.5

0.05

TECHNICAL SPECIFICATIONS

System Performance (Microvolume mode)	
Sample Volume	≥ 1 µL
Detection Range dsDNA	2 – 20,000 ng/µL
Detection Range BSA	0.06 – 600 mg/ml
Path Length	0.5 mm and 0.05 mm
Measurement Time	< 3 sec
Display	7" glove compatible colour LCD touchscreen
Optical Specifications	
Light Source	Pulsed Xenon flash lamp
Detector	2,048 CMOS
Wavelength Range	190 – 1,000 nm
Wavelength Accuracy	1 nm
Bandwidth	1.3 nm
Absorbance Accuracy	3.0% (at 0.75 A at 300 nm)
Absorbance Range (10 mm equivalent)	0.04 – 400 A
Spectral Resolution	1.5 nm (FWHM at Hg 253.7 nm)
Detection Area Material Of Construction	Stainless steel & quartz window with hydrophobic coating
General Specifications	
Dimensions (W x D x H)	206 x 333 x 166 mm
Weight	3.5 kg (7.8 lb)
Power	Input: AC 100 – 240 V, 50/60 Hz Output: DC 24 V, 2.08 A
Certifications	CE, RoHS
Applications	both models: Nucleic Acid, Protein A280, Protein Assay, OD600, Standard Curve, UV-Vis, Factor Colibri+ C only: Kinetics, Labeled Protein, Microarray

Cuvette specifications	
Cuvette type	10, 5, 2, 1, 0.5, 0.2, 0.125, 0.1 mm quartz glass or plastic cuvettes
Measurement range	0.002 ~ 1.5 A
Dimensions	Width: 12.5 mm Length: 12.5 mm Height: 45 mm Beam height: 8.5 mm
Functions	Heater (37 ~ 45 °C) Stirring (1 ~ 8 speed corresponding to 150 ~ 850 rpm)
Detection range	dsDNA: 0.3 – 75 ng/µL; BSA: 0.003 – 2.25 mg/mL
Software & Connectivity	
Connectivity	both models: USB Type A front port Colibri+ C only: additional USB Type B port for PC-connectivity
PC Software (Colibri+ C only):	PC requirements: Windows® 7 and 10, 64 bit

ORDERING INFORMATION

Models	
Colibri+ Microvolume Spectrophotometer	73179
Colibri+ C Microvolume/ Cuvette Spectrophotometer	73179-10

TRANSFORMING SCIENCE INTO SOLUTIONS



Berthold Technologies is a global technology leader in life sciences. Our extensive range of analytical system solutions made in Germany has been trusted by scientists since 1949. These range from small standalone readers, such as microvolume spectrophotometer and luminometers to various dedicated and multimode readers, microplate washers, microplate workstations, RIA and ELISA automation products to high-end imaging systems, HPLC radio detectors and gamma-counters. It is our mission to create a healthier world, a safer environment and more efficient manufacturing processes.

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