

Микрообъемный спектрофотометр BioDrop Duo+

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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BioDrop Duo+ Microvolume Spectrophotometer

The BioDrop Duo+ combines our patented fixed pathlength microvolume port for reliability and consistency of results down to 1 μ L of sample with the additional benefit of a standard 10 x 10 mm cuvette port.

At a range of 190-1100nm, pre-programmed Life Science methods and general spectrophotometry capabilities, this 2 in one instrument will fulfil the needs of the most demanding laboratories.

BIODROP DUO+ MICROVOLUME SPECTROPHOTOMETER

The microvolume sample port is easy to use: simply pipette as little as 1 μ L and measure. Cleaning the port is easy too: just wipe with a lint free tissue to reduce sample carry over to

undetectable amounts. Should a sample be unintentionally left on the port to dry out, mild detergents and distilled water should be used for a more thorough cleaning.

The cuvette port of the BioDrop Duo+ adds the versatility for the instrument to be used just like any standard spectrophotometer. For applications where a higher sample volume is required, eg. OD600 and enzyme kinetics, the Duo+ is a truly flexible instrument.

Life Science Application

- DNA, RNA
- Oligo
- Fluorescent Dye
- Tm Calculation
- Protein Dye
- Protein UV
- Colorimetric protein methods

The BioDrop Duo+ microvolume sample port uses no moving parts. This means that the instrument provides excellent reproducibility without the need for regular pathlength calibration. Measurements are also highly accurate because the pathlength of the port is highly specified to 5 μm .

Pre-Programmed methods on the BioDrop Duo + instruments include DNA, RNA and Oligo Concentration, Protein Assays, OD600, and an extensive menu of commonly available fluorescent dyes for nucleic acids and proteins. Should there be a method specific to your lab, this can be written in using the versatile Equation Editor. Results can be saved to the on-board memory of the BioDrop Duo+, saved to USB as a .csv file, printed to the optional integrated serial printer, or analysed in the powerful BioDrop Resolution PC Software. BioDrop Resolution CFR is also an option for those labs that are 21 CFR Part 11 compliant.

APPLICATION	TYPICAL CONCENTRATION
Sequencing	125 ng/20 μl (6 ng/ μl)
Next Generation Sequencing	10 ng/ μl

APPLICATION	TYPICAL CONCENTRATION
Transfections	5 to 30 µg/100µl 50 to 500 ng/µl
DNA Vaccines	0.5 to 2 mg
PCR	2 ng/µl
qPCR	200 ng/100 µl (2 ng/µl)
DNA Microarray	>2 µg
siRNA	7.5 µg/µ
Protein Crystallography	50 ng/µl

TECHNICAL SPECIFICATIONS	
SPECIFICATION	DATA
Wavelength Range	190 - 1100 nm
Wavelength Accuracy	±2 nm
Wavelength Reproducibility	±1 nm
Spectral Bandwidth	5 nm
Measurement Time	<4 seconds
Stray Light	<0.5 %T @ 220 nm NaI, <0.5%T @ 340 nm NaNO2
Photometric Range	0A to 2.5A, 0 to 100%T
Photometric Accuracy	±0.01A + 1.5% of the reading @ 546 nm
Photometric Reproducibility	±0.003A (0 to 0.5A), ±0.007A (0.5 to 1.0A)
Noise	0.005A peak to peak, 0.002A RMS
Power Input	120 to 240V~ 50/60Hz, 40VA Max

TECHNICAL SPECIFICATIONS	
SPECIFICATION	DATA
Display	7" Touch screen display
Lamp	Pulsed Xenon lamp
Languages	English, French, German, Spanish, Italian, Japanese, Chinese
Sample Volume	Minimum 0.6 μ L
Sample Ports	Standard 10x10 mm cuvette port + Microvolume port
Pathlength	10mm + 0.5mm
Dimensions	Height 190 mm x Width 280 mm x Depth 410 mm (521 mm with printer)
Weight	Approx. 3.55 kg (4 kg with printer)
Software	Resolution Software (included), Resolution CFR (optional)

^ BioDrop Duo+

ITEM #: 80-3006-68

Spectrophotometer with 10 mm cuvette holder and 0.5 mm micro-volume port

✓ BioDrop DUO+ with built-in printer

ITEM #: 80-3006-69

Spectrophotometer with 10 mm cuvette holder and 0.5 mm micro-volume port and built-in printer

No Moving Parts

Only BioDrop Delivers Maintenance-Free Performance for a Lifetime of Reliable Results

Direct Sampling

BioDrop's unique in-built sample port is dedicated to micro-volume measurement. The port is easy to use: simply pipette as little as 0.5 μL of sample and measure. Cleaning the port is easy too. Just wipe with lint-free tissue to reduce sample carryover to undetectable amounts.

The in-built sample port uses no moving parts. This means that the instrument provides excellent reproducibility without the need to recondition or calibrate. Measurements are also highly accurate because the pathlength of the port is highly specified to $\pm 5 \mu\text{m}$. BioDrop also looks at the purity of your sample and flags up any issues you may need to address.



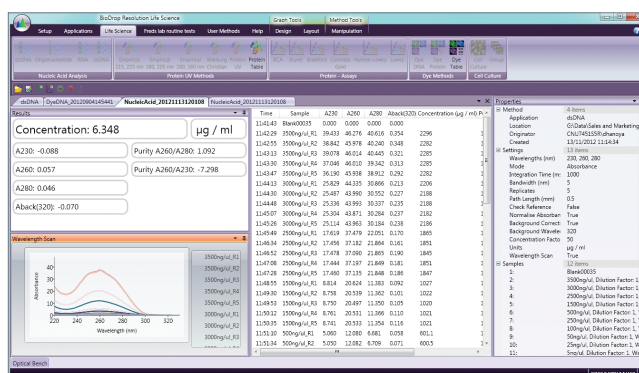
Micro-Volume Specifications of the BioDrop In-Built Sample Port

Pathlength (mm)	0.5
Pathlength Accuracy (μm)	± 5
Minimum Volume (μL)	0.5
Maximum Concentration dsDNA (ng/ μL)	2,500
Detection Limit (ng/ μL)	1

Intelligent Software, Powerful Analysis

BioDrop instruments feature easy-to-use on-board software via a large, high resolution colour touchscreen. Pre-programmed applications in both on-board and PC software make it quick and easy to set up, choose methods and measure samples.

The powerful BioDrop Resolution Life Science PC Software package is included with all instruments. Data can be transferred from the instrument using a USB flash drive. Alternatively, the instrument can be operated using a PC via a USB connection. A built-in printer can be selected for a complete standalone solution within a small footprint.



- BioDrop Resolution Life Science PC Software offers computer control, pre-programmed applications and powerful custom analysis.
- When compliance is critical, a full 21 CFR Part 11 compliant version is available.

Accurate Micro-Volume Results in Seconds, for the Confidence to Do More

Whatever your application — PCR, QPCR, siRNA or DNA microarray — the BioDrop range of instruments deliver rapid, simple and accurate measurement of your DNA, RNA, oligo and protein concentration and purity from just 0.5 μ L of sample. BioDrop is flexible when you require it, fast when you need it, and easy to use in every case.



**Accurate micro-volume
results in seconds.**

**What can you do
with a Drop?**

Robust and Sustainable

- Long life Xenon flash lamp
- Low energy usage and screen saver mode
- No moving parts — no need for regular calibrations

Pre-Programmed Methods

- DNA, RNA, oligo and proteins
- Absorbance concentrations AND a comprehensive fluorescent dye menu for extra important samples
- Method creator for ultimate flexibility
- Additional functionality with the cuvette port option — scanning, multiple wavelengths, kinetics, OD600

Micro-Volume Sample Port

- Fixed pathlength — no need for calibration
- Wipe-clean design — no sample cross-over
- Volumes from 1 to 5 μ L — even if pipetting is slightly inaccurate, your results won't be

Optimal Performance

- BioDrop instruments are accurate, robust and fast — results in <4 seconds
- Sensitive limit of detection — highly accurate and reproducible results
- Large, high-resolution colour touchscreen for powerful on-board analysis

Technical Details

Parameter	BioDrop Duo+	BioDrop μ Lite+
Wavelength Range	190 nm to 1100 nm	
Wavelength Accuracy	± 2 nm	
Wavelength Reproducibility	± 1 nm	
Spectral Bandwidth	5 nm	
Stray Light	<0.5%T @ 220 nm NaI, <0.5%T @ 340 nm NaNO ₂	
Photometric Range	-0.3A to 2.5A, 0 to 199%T	
Photometric Accuracy	$\pm 0.01A + 1.5\%$ of the reading @ 546 nm	
Photometric Reproducibility	$\pm 0.003A$ (0 to 0.5A), $\pm 0.007A$ (0.5 to 1.0A)	
Noise	0.005A peak to peak, 0.002A RMS	
Power Input	120 to 240V~ 50/60Hz, 40VA Max	
Dimensions	Height 190 mm x Width 280 mm x Depth 410 mm (521 mm with printer)	
Weight	Approx. 3.55 kg (4 kg with printer)	
Software	Resolution Software (included)	
Life Science Applications	DNA, RNA, Oligo, Fluorescent Dye, T _m Calculation, Protein Dye, Protein UV and Colorimetric Protein Methods	
Applications	Single Wavelength, Concentration, Wavescan, Kinetics, Standard Curve, Substrate, Equation Editor	

Typical Applications

Application	Typical Concentration	BioDrop DUO+	BioDrop μ LITE+
Sequencing	125 ng/20 μ l (6 ng/ μ l)	•	•
Next Generation Sequencing	10 ng/ μ l	•	•
Transfections	5 to 30 μ g/100 μ l 50 to 500 ng/ μ l	•	•
DNA Vaccines	0.5 to 2 mg	•	
PCR	2 ng/ μ l	•	•
qPCR	200 ng/100 μ l (2 ng/ μ l)	•	•
DNA Microarray	>2 μ g	•	•
siRNA	7.5 μ g/ μ l	•	•
Protein Crystallography	50 ng/ μ l	•	•

Ordering Information

Order #	Product	Description
80-3006-68	BioDrop DUO+	Spectrophotometer with 10 mm cuvette holder and 0.5 mm micro-volume port
80-3006-69	BioDrop DUO+ with built-in printer	Spectrophotometer with 10 mm cuvette holder and 0.5 mm micro-volume port and built-in printer
80-3006-55	BioDrop μ LITE+	Spectrophotometer with 0.5 mm micro-volume port
80-3006-56	BioDrop μ LITE+ with built-in printer	Spectrophotometer with 0.5 mm micro-volume port and built-in printer
80-3006-70	BioDrop Resolution CFR Software	Full 21CFR Part 11 compliant PC control software

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