

BioDrop DUO

Fresh Thinking for Micro -Volume Measurement



BioDrop DUO is the ideal solution for life scientists for whom flexibility of measurement is a key requirement.



Product Overview

BioDrop DUO UV/Vis spectrophotometer has two measurement modes: a unique in-built sampling port dedicated to micro-volume measurement and a 10 mm cuvette holder for conventional spectroscopy or for use with the BioDrop CUVETTE 125 for extended micro-volume capabilities.

BioDrop DUO is quick and easy to use. It has a large capacitive colour touch screen with on-board software for data acquisition and analysis. Pre-programmed methods for DNA, RNA, oligos and proteins in the on-board software reduce the time from measurement to results. In addition, data generated using the on-board software can be stored internally or transferred using a USB memory stick. Alternatively, both the PC-only and standalone instruments can be controlled using a PC and BioDrop Resolution Software. Users can also choose an optional built-in thermal printer for maximum flexibility.

BioDrop DUO has an in-built sample port with no moving parts. Because the pathlength doesn't move, the instrument provides excellent reproducibility. Measurements are also highly accurate because the pathlength is specified to $\pm 5 \mu\text{m}$.

dsDNA Measurement	Pathlength	Minimum Volume	Detection Limit	Maximum Concentration
BioDrop in-built sample port	0.5 mm	0.5 μL	1 ng/ μL	2,500 ng/ μL
BioDrop CUVETTE 125	0.125 mm	0.6 μL	7 ng/ μL	12,000 ng/ μL

All in one flexibility!

- **Two ways to measure** micro-volume samples: in-built sampling port for micro-volume measurements and a cuvette holder for 10 mm cuvettes
- **Extended capability** for micro-volume measurement with the BioDrop CUVETTE 125
- **Exceptional pathlength accuracy** – with no moving parts, the in-built sample port pathlength is fixed at 0.5 mm and specified to $\pm 5 \mu\text{m}$
- **Fast operation** – switch on and measure a DNA sample in <4 seconds with only 4 screen touches
- Large, high resolution, capacitive **colour touchscreen** on standalone instrument
- The in-built sample port is **easy to clean** and maintain
- **USB** connectivity for easy PC connection or data export
- BioDrop Resolution Life Science **PC software** for powerful analysis

BioDrop Resolution Life Science Software

- Dedicated life science methods for determining the concentration and purity of DNA, RNA, oligos and protein as well as the ability to create and save customized methods
- Fast and easy to use with intuitive modules for quick measurements, wavelength scanning, quantitation and kinetics
- Pre-programmed with BioDrop pathlengths for quick calculations
- Optional BioDrop Resolution CFR module for laboratories requiring full 21 CFR part 11

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Technical Details

	BioDrop DUO	BioDrop DUO PC
Display	5.7" colour capacitive touchscreen	None
Light Source	Pulsed Xenon lamp with 3 year warranty	
Detector	1024 element CCD array	
Wavelength Range	190 – 1100 nm	
Minimum Volume (dsDNA of in-built sample port)	0.5 µL	
Maximum Concentration of in-built sample port(dsDNA)	2,500 ng/µL	
Detection Limit of in-built sample port (dsDNA)	1 ng/µL	
Pathlength Accuracy of in-built sample port	+/- 5 µm	
Wavelength Accuracy	± 2 nm	
Wavelength Reproducibility	± 1 nm	
Spectral Bandwidth	5 nm	
Stray Light	<0.5%T at 220 nm and 340 nm using NaNO ₂	
Absorbance Range	- 0.3A to 2.5A, 0 to 199%T	
Absorbance Accuracy	±0.005A or 1% of the reading, whichever is the greater at 546 nm	
Absorbance Reproducibility	±0.003A (0 to 0.5A), ±0.007A (0.5 – 1.0A)	
Noise	0.005A peak to peak 0.002A RMS	
Output	USB port for USB memory stick	USB port for PC connection
Power input	90-250 V, 50/60 Hz, Max 30 VA	
Dimensions	420 x 260 x 185 mm	
Weight	approx. 3 kg	
Life Science PC Software	DNA, RNA, oligo, dye labelling efficiency, T _m calculation, direct UV and colorimetric protein methods	
Software Languages	English, French, German, Spanish	English

Ordering Information

Part number	Description
80-3006-61	BioDrop DUO
80-3006-61-125	BioDrop DUO plus BioDrop CUVETTE 125
80-3006-62	BioDrop DUO with built-in printer
80-3006-62-125	BioDrop DUO with built-in printer plus BioDrop CUVETTE 125
80-3006-60	BioDrop DUO PC
80-3006-60-125	BioDrop DUO PC plus BioDrop CUVETTE 125
80-3006-70	BioDrop Resolution CFR PC Software

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