

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 |

Distributors worldwide

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