



MESLO M-Drop XF Nano Spectrophotometer + Fluorometer

Microvolume Analysis of DNA, RNA & Proteins



NUCLEIC ACID



PROTEINS



BACTERIA

MESLO M-Drop XF Spectrophotometer + Fluorometer

MESLO M-Drop

The MESLO M-Drop XF Nano Spectrophotometer provides quick and easy quantification of small samples. Utilising a small sample volume eliminates the need for dilutions, providing more accurate results.

A full colour, 7" touchscreen with icon-driven menus and preprogramed protocols gets users up and running quickly. No external computer is required. Each unit features a quartz pedestal onto which a drop of sample is placed. The arm is lowered and the drop is stretched into a liquid column of specified length for spectral analysis. DNA, RNA and protein concentrations and purity numbers are displayed in a matter of seconds.



A small drop is needed

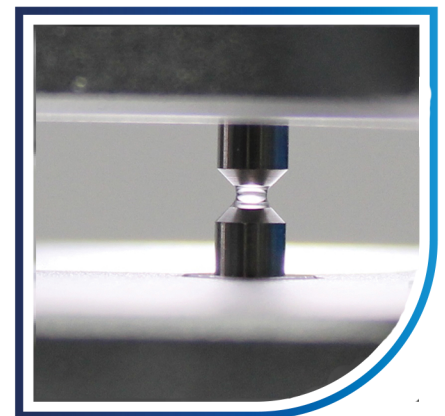


Integrated printer for results documentation



Key Features

- ✓ Full-spectrum absorbance scanning and calculations of 260/280 and 260/230 ratios.
- ✓ Long-life Xenon lamp with precision monochromator.
- ✓ Auto-ranging path lengths of 0.05mm, 0.2mm and 1.0mm.
- ✓ Detect up to 15,000ng/μl of dsDNA without dilution.
- ✓ Integrated Fluorometer for sensitive quantitation of low concentration nucleic acids.



Drop stretched into liquid column

Specifications

The resulting data can be printed, saved in the M-Drop XF onboard memory or exported via USB as Excel file.

The M-Drop XF includes an integrated printer.

For OD600 readings, the M-Drop XF includes a cuvette port and two optical glass cuvettes.

The M-Drop XF performs not only UV-Vis readings in the range of 200-800nm but also fluorescence readings.

The M-Drop XF features predefined programs for nucleic acids, proteins, and various colorimetric assays. The patented, motorized system gently stretches the sample column and allows for three different path lengths, providing accurate readings of samples from 0.5 to 2.0 μ l without dilution.

The integrated fluorometer yields more accurate, sensitive and selective quantitation of nucleic acids using blue light channel (460nm) for detection of dyes.

Cuvette Port for OD600



Parameter	M-Drop XF
Display	7-inch touch screen
Minimum sample size	0.5 μ l - 2.0 μ l
Path length	0.05mm, 0.2mm, 1.0mm
Light source	Xenon Flash Lamp
Detector	2048 Element Linear Silicon CCD Array
Wavelength	200 - 800nm (1nm steps)
Absorbance range	0.04 - 300 A (10mm equivalent)
Absorbance precision	0.003 A
Lower limit of detection	dsDNA: 2ng/ μ l ; BSA: 0.1mg/ml
Upper limit of detection	dsDNA: 15,000ng/ μ l; BSA: 360mg/ml
Detection time	< 6 seconds
Communication ports	USB for data export
Voltage input	DC 24V, 2A
Power	25W
Dimensions (WxDxH)	20.8 x 8.0 x 18.6 cm / 8.2 x 11.0 x 7.3 in.
Weight	3.6 kg / 7.9 lbs
Cuvette OD600 detection	
Absorbance range	0.0 - 4.0 A
Absorbance stability	[0,3) \leq 0.5%, [3,4) \leq 2%
Absorbance repeatability	[0,3) \leq 0.5%, [3,4) \leq 2%
Absorbance precision	[0,2) \leq 0.005 A, [2,3) \leq 1%, [3,4) \leq 2%
Fluorescence detection	
Excitation/Emission	460 \pm 20nm / 525-570nm
Sensitivity	dsDNA: 0.5pg/ μ l
Linearity	R ² \geq 0.995
Repeatability	\leq 1.5%
Stability	\leq 1.5%



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