

Genova Nano Micro-Volume Spectrophotometer

This spectrophotometer is dedicated to life science analysis. It is fitted with a micro-volume accessory enabling micro-volume samples to be pipetted directly onto the read head, removing the need for cuvettes and conserving precious samples.

Introducing the Genova Nano

The Genova Nano measures small sample volumes as low as 0.5µl with a high degree of accuracy, reproducibility and speed. Its ability to measure small sample volumes, reduces the need for dilutions and eliminates the requirement for cuvettes. Cleaning is quick and simple; wiping the read heads with a microfiber cloth removes all trace of the sample, allowing faster change over between samples, therefore increasing sample throughput.

Measurement Modes

To make sample measurement even easier the Genova Nano spectrophotometer is pre-programmed with methods for the measurement of nucleic acid concentrations and protein assays. This spectrophotometer also has measurement modes for the purity of nucleic acids and optical density for cell harvesting. At the touch of a button the spectrophotometer can display standard spectrophotometer measurement modes including photometrics, concentration, multi-wavelength, spectrum scanning, quantitation and kinetics.

Key Features

- Ideal for DNA, RNA and Protein measurements
- Only 0.5µl sample volume required
- Purity scan over entire wavelength range, 198 to 1000nm
- Quick and easy to clean
- Detects DNA concentrations as low as 2ng/µl
- Method and result saving to USB memory stick
- 3 year warranty including Xenon lamp

Micro-Volume Spectroscopy

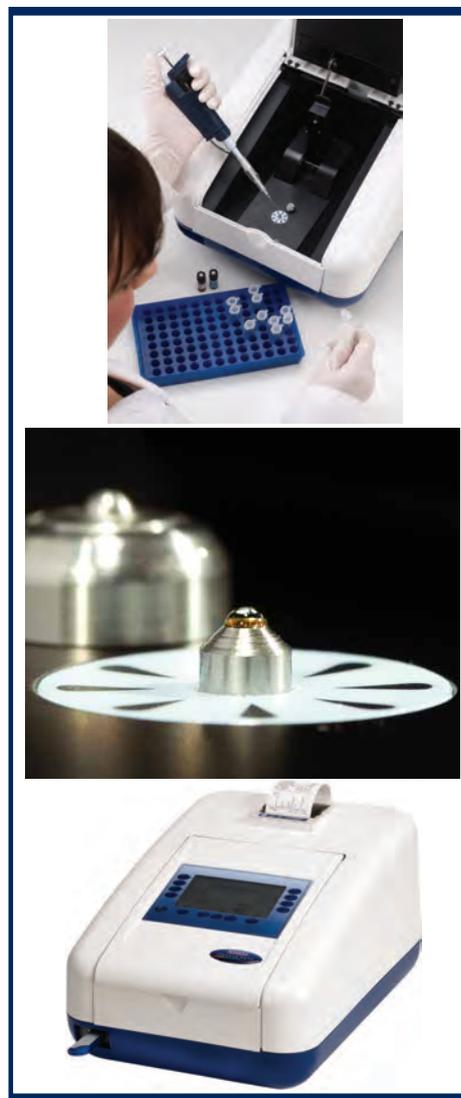
The Genova Nano is fitted with a micro-volume accessory which allows samples as small as 0.5µl to be pipetted directly onto the read head, removing the need for cuvettes and conserving precious samples. This makes it ideal for nucleic acid researchers where sample availability may be limited; the perfect analysis tool to measure the purity and concentration of biological samples.

Read Head

Simply pipetting directly onto the read head makes sample measurement, quicker and requires much less effort, eliminating the need for both sample dilutions and cuvettes. The stainless steel read head which consists of a chemically inert embedded quartz lens, utilises the natural surface tension of the droplet to form the bond between the read head surfaces. After measurement the sample can be easily removed by pipetting or wiping away with a microfibre cloth.

Fast Readings & Instant Results

The Genova Nano can automatically take readings at the optimal path length (either 0.2 or 0.5mm). It performs sample measurements in less than 6.5 seconds. The Genova Nano has an optional printer which fits into the top of the spectrophotometer, again minimising bench space and enabling the instant production of result records or results can be easily saved to USB memory stick.



Purity Scan Measurement Mode

This measurement mode is used to check the purity of nucleic acids. This is especially useful for RNA samples where impurities may be present at 230nm but cannot be detected using the 260/280 ratio measurement. The Genova Nano enables scanning across the full wavelength range from 198 to 1000nm to identify any distorted peaks.

Protein Assay Determination Mode

For measuring protein concentrations, the Genova Nano is pre-programmed with methods for Bradford, Lowry, Biuret, Bicinchoninic Acid (BCA) and Direct UV assays. This measurement mode allows up to 12 standards, with 3 replicates of each standard, to be measured to create the standard curve. The replicate measurements can be set to automatically perform 3 readings one after the other on the same sample; or the replicates can be set to enable one measurement to be performed on three separate samples of the same concentration.

Nucleic Acid Determination Mode

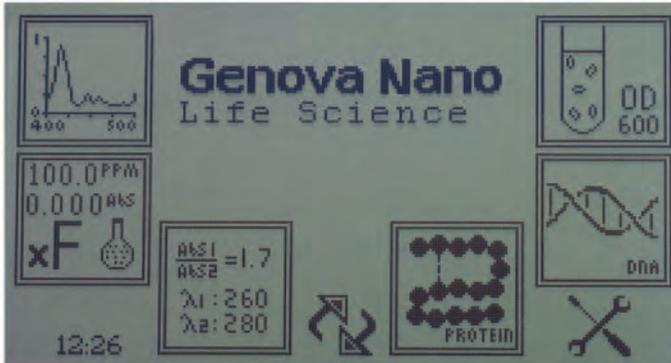
The Genova Nano is pre-programmed with methods for the measurement of ssDNA, dsDNA, RNA and oligonucleotide concentrations using wavelengths recorded at 260, 280 and 230nm, with an optional correction at 320nm. This measurement mode has the 260/280 and 260/230 ratios pre-programmed as well as a variable ratio option which enables up to 3 wavelengths to be entered as well as the correction wavelength.

Ordering Information

Product Code	Description
737 501	Genova Nano spectrophotometer fitted with micro-volume accessory, supplied with universal power supply, USB memory stick, calibration standards and certificate and instruction manuals.
660 101	Internal printer
037 702	Extra paper for internal printer
735 001	Dust cover
019 146	4GB USB memory stick

Technical Specification

Wavelength	
Wavelength Range	198 to 1000nm
Wavelength Accuracy	±2nm
Spectral Bandwidth	5nm
Path Length	0.2 or 0.5mm (auto-ranging)
Photometrics	
Absorbance Range	15 to 125A (10mm equivalent)
Absorbance Accuracy	±2% at 260nm
Absorbance Precision	<0.005A between 0 and 1A (at 260nm and 0.5mm)
Concentration/Quantitation	
Maximum Concentration	6,000 ng/µl (dsDNA) (at 0.2mm)
Detection Limit	2ng/µl (dsDNA) (at 0.5mm)
Measurement Time	<6.5 seconds
Minimum Sample Size	0.5µl (at 0.2mm) and 1.0µl (at 0.5mm)
Maximum Sample Size	5µl
DNA measurement modes	dsDNA, ssDNA, RNA, Oligonucleotides, 260/280, 260/230, Variable ratio
Protein measurement modes	BCA, Bradford, Lowry, Biuret, Direct UV
Other	
Sample Pedestal Material	Quartz stainless steel Press to read Xenon lamp
Light Source	read Xenon lamp
Size (w x d x h), mm	275 x 400 x 220
Weight, kg	7.7



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