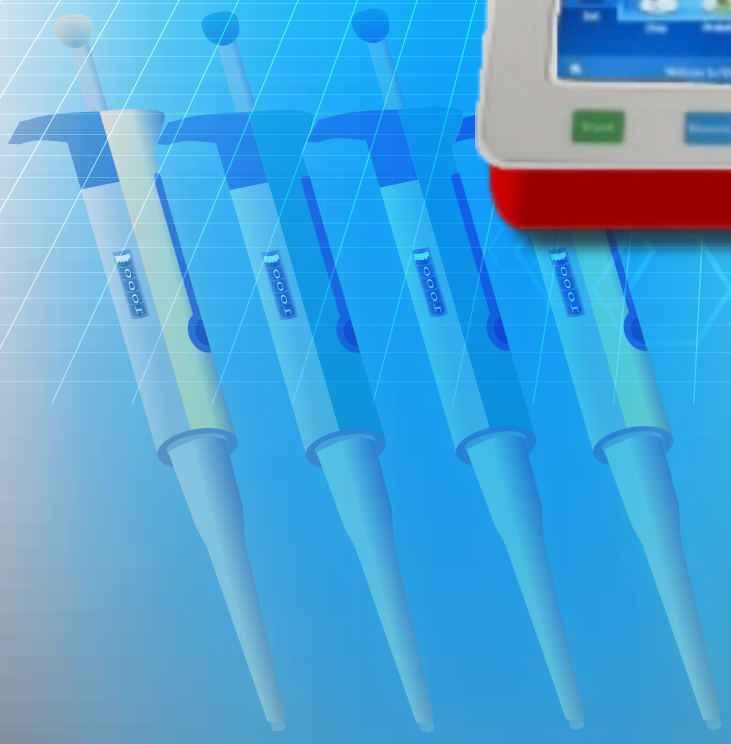
LABOCON

NANO

Spectrophotometer



NOTE: The color of the actual product may differ from the color pictured in this catalog due to printing limitation.

NANO SPECTROPHOTOMETER LNS-100 SERIES

The Nano spectra range is the next generation low volume spectrophotometers which have the ability to detect sample as low as 10ng/µl in the wavelength range of 230-280nm.

These systems possess the unique feature as there is no pre dilution require for any type of sample analysis and it can analyse the nucleic acid at the maximum concentration up to 5000ng.

It's integrated with highly durable Xenon flash lamp which activates in lesser warm-up time; hence it reduces the overall measurement time. All optical components are quartz coated and equipped with best quality grade encapsulation; that guarantee the best quality and extreme durability.

With 3864 - element linear silicon CCD array detector, these systems possess two prominent features, first, there is no movable part which ensures low maintenance and high durability; secondly, its deliver fast sample measurement which is best suitable for fast protocol and high throughput requirement.

Easy user LCD/LED interface with large graphical display; which provide result and analysis in just one click by showing wavelength scanning, kinetics and standard curve to come at final conclusion.

The sample analysis software will generate the result as scanning, wavelength analysis, quantitative analysis as well as assist in data collection, storage, export, and reporting.

With the additional feature as an easy access of USB port which facilitates to store the result as well as user can also upload the data.

These spectrophotometers are efficient enough to read the sample quantity from 0.5µl to 2.0 µl in less than 5sec. for various type of measurement such as:

- DNA and RNA (260nm)
- Purified protein (280nm)

Features

- **Wavelength range**
  - 200-850nm
- **Wavelength accuracy**
  - 1.0nm
- **Easy user interface**
  - By pipetting, just drop the sample onto the sample point for direct measurement without any prior dilution.

- **Low sample volumes**
  - Reduce sample loss and eliminate the need for dilution by using low volumes of samples in 0.3µl to 2.0µl for sample measurement. The appropriate path length can be selected automatically or by manual selection.
- **Fast measurements**
  - Read-time is typically less than 5sec per sample without washing cuvettes or dilutes the samples
- **Convenience and ease of use**
  - Calibration curves, kinetics or ratio measurements are all displayed at the touch of a button at connected computer.
- **Reliability and robust instrumentation**
  - Press-to-read feature reduces the amount of time .Optics with no moving parts minimizes the incidence of optical misalignment

LNS-101

LNS-102

Specification

Model	LNS-101 (Discontinued)	LNS-102
Wavelength Range	230nm, 260nm, 280nm	200~800nm
Minimum Sample Size	0.5-2.0μl	
Wavelength Accuracy	1nm	
Wavelength Reproducibility	1nm	
Absorbance Range	0.02-80 (10mm equivalent absorbance)	0.02 - 75 (10 mm equivalent)
Absorbance Accuracy	1% (at 0.7332 at 350 nm)	
Absorbance Precision	0.003 Abs	
Photometric Repeatability	None	
Spectral Resolution	≤ 3 nm (FWHM at Hg 546 nm)	
Path Length	0.2mm (For high sample concentration measurement) 1.0mm (For low sample concentration)	
Light Source	Xenon flash lamp	
Detector	Photodiode	3864-element linear silicon CCD array
Detection Range	Nucleic acid up to 10-5000ng/μl Protein up to 0.1mg/ml~100mg/ml	Nucleic acid up to 3~4500ng/μl (dsDNA)
Measurement Time	< 5s	
Overall Dimension	210x280x166 mm	200x262x154 mm
Power	12-18 W	
Power Supply	24V DC	
Weight (Net/Gross)	2.7 kg	2.5 kg
Catalog No.	9241115105	9241116105

NANO SPECTROPHOTOMETER LNS-200 SERIES

The Nano spectra LNS-200 range is the next generation low volume spectrophotometers which have the ability to detect sample as low as 0.4ng/µl in the wavelength range of 200-850nm.

These systems possess the unique feature as there is no pre dilution require for any type of sample analysis and it can analyse the nucleic acid at the maximum concentration up to 20000ng.

It's integrated with highly durable Xenon flash lamp which activates in lesser warm-up time; hence it reduces the overall measurement time. All optical components are quartz coated and equipped with best quality grade encapsulation; that guarantee the best quality and extreme durability.

With 2048-element linear silicon CCD detector, these systems possess two prominent feature; first, there is no movable part which ensures low maintenance and high durability; secondly, its deliver fast sample measurement which is best suitable for fast protocol and high throughput requirement.

Easy user LCD/LED interface with large graphical display; which provide result and analysis in just one click by showing wavelength scanning, kinetics and standard curve to come at final conclusion.

The sample analysis software is compatible with Windows 7/ Windows 10 will generate the result as scanning, wavelength analysis, quantitative analysis as well as assist in data collection, storage, export, and reporting.

With the additional feature as an easy access of USB port which facilitates to store the result as well as user can also upload the data.

Features

- **Wavelength range**
  - 200-850nm
- **Wavelength accuracy**
  - 1.0nm
- **Easy user interface**
  - By pipetting, just drop the sample onto the sample point for direct measurement without any prior dilution.
- **Low sample volumes**
  - Reduce sample loss and eliminate the need for dilution by using low volumes of samples in 0.3µl to 2.0µl for sample measurement. The appropriate path length can be selected automatically or by manual selection.
- **Fast measurements**
  - Read-time is typically less than 5sec per sample without washing cuvettes or dilutes the samples

- **Convenience and ease of use**
  - Calibration curves, kinetics or ratio measurements are all displayed at the touch of a button at connected computer.
- **Reliability and robust instrumentation**
  - Press-to-read feature reduces the amount of time .Optics with no moving parts minimizes the incidence of optical misalignment

Additional feature

- **Model LNS-201:**
  - Equipped with a built-in printer
- **Model LNS-202:**
  - Provides long lasting accuracy without recalibration
  - Can store up to more than 80 methods
  - Provides long lasting accuracy without recalibration
  - Equipped with vortexer having speed of 2800 rpm with tube size up to 2ml
  - Equipped with SD memory card, USB or Bluetooth to connect to PC
  - Absorbance Reproducibility: dsDNA: 0.5ng/ µl to 125 ng/µl, BSA:0.02mg/ml to 3.6 mg/ml
  - **Accessories:**
    - Thermal paper printer
    - Keyboard
    - USB port for data transfer
    - Software package
    - Dust cover
    - Cables
- **Model LNS-203:**
  - Dark room for cuvette to choose cuvette or test platform
  - Cuvette size: 1mm, 2mm, 5mm, 10mm
  - USB port for data transfer

Application

The LNS-200 series Nano spectrophotometers are efficient enough to read the sample quantity from 0.3µl to 2.0 µl in less than 5sec.; which is suitable for various type of measurement such as:

- Peptides (205nm)
- DNA and RNA (260nm)
- Purified protein (280nm)
- Toxicology assays and industrial dyes (490nm)
- Gold nanoparticles (520nm)
- Colorimetric protein assays:
- BCA(562nm)
- Bradford (595nm)
- Modified Lowry (650nm)
- Optical Density measurements (600 nm)

LNS-201

LNS-203

Specification

Model	LNS-201 (Discontinued)	LNS-202	LNS-203 (Discontd.)
Minimum Sample Size	0.3-2.0µl		
Wavelength Range	260nm, 230nm and 280nm	200-850 nm	
Wavelength Accuracy	Fixed wavelength point	±1nm	
Wavelength Reproducibility	<±0.2 nm		
Absorbance Range	0.2-75 (10mm equivalent absorbance)	0.002-75 (150, 300 optional, 10mm equivalent absorbance)	
Absorbance Accuracy	1%	1% (0.75 Abs at 350nm)	
Absorbance Precision	0.002Abs		
Spectral Bandwidth	≤5nm		
Spectral Resolution	5nm	2nm (FWHM at Hg 546)	
Path Length	1mm, 0.2mm	0.04mm, 0.1mm, 0.2mm, 1mm, 2nm	1mm,2mm, 5mm,10mm
Light Source	Xenon flash lamp		
Life Time of Lamp	10^9 flashes up to 10 years		
Detector	UV Detector	2048-element linear silicon CCD	
Detection Range	Nucleic acid up to 10-3750ng/µl (dsDNA) Protein up to 0.5mg/ml-110mg/ml (BSA)	Nucleic Acid up to 2-10000ng/µl (dsDNA) BSA:0.08mg/ml to 543mg/ml	Nucleic acid up to 0.4-3750ng/µl (7500, 15000 20000ng optional, dsDNA) Protein up to 0.01mg/ml - 100mg/ml (200, 400 optional, BSA)
Start-up Time	< 5sec.		
Measurement Time	< 5sec.		
Overall Dimension	240x220x140 mm	210x170x110 mm	240x210x110 mm
Power	12V 4A	30 W	10 W
Power Supply	90-250V 50/60Hz		
Net Weight	2.35 kg	1.35 kg	1.92 kg
Catalog No.	9241138164	9241139164	9241140164

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