Precision meets Beauty

NanoPhotometer® N60

NanoVolume Spectroscopy

Microvolume Capability
Built-in Vortex

Starting with only 0.3 µl of sample

Full Scan

2.5 - 4 seconds per reading
200 to 900 nm
Resolution better than 1.8 nm

Regulatory Compliance, Certainty in Real Time and IQ/OQ Package

Optional CFR21 software provides password protected Role Based Access Control (RBAC), data integrity, electronic signatures and audit trail functionality
Impurity and air bubble recognition with Sample Control™ and Blank Control™
Compliant with international standards in regulated environments

WiFi HotSpot LAN

Endless Connectivity

Built-in File Server for data access from Windows and Mac computers
Print to Airprint™ and HP Universal Driver compatible printers as well as DYMO Label printers
REST API for LIMS integration

Battery Powered

Up to 8 hours battery operation

Flexible Unit Control and Ultimate Data Security

Computer (Windows & Mac)
Built-in touchscreen
Smartphone / Tablet (Android OS & iOS)
Proprietary NPOS immune to known threats

World's smallest footprint in its class: only 20 x 20 x 12 cm
Ideal for nucleic acids, protein and samples in most organic solvents
Allows kinetic studies in a drop
No reconditioning, no recalibration and no regular maintenance ever
Stand-alone operation with built-in 7 inch glove compatible touch screen
Universal data output: Excel and PDF | Multi Language User Interface | Barcode ready
32 GB of onboard memory

Technical Specifications

NanoVolume Performance	
Detection Range dsDNA	N60, NP80: 1 - 16,500 ng/µl N50: 5 - 7,500 ng/µl N120: 2 - 8,000 ng/µl
Detection Range BSA	N60, NP80: 0.03 - 478 mg/ml N50: 0.15 - 217 mg/ml N120: 0.06 - 230 mg/ml
Sample Volume	N50, N60, NP80: 0.3 - 2 µl N120: 2 - 3.5 µl
Photometric Range (10 mm equivalent)	N60, NP80: 0.02 - 330 A N50: 0.1 - 150 A N120: 0.04 - 160 A
Path Length	N50, N60, NP80: 0.67 and 0.07 mm N120: 1 and 0.125 mm
Dilution Factor	N50, N60, NP80: 15 and 140 N120: 10 and 80
Vortex	N60, NP80: 2,800 rpm Tube size up to 2.0 ml

Cuvette Performance – NP80 & C40	
Detection Range dsDNA	0.1 - 130 ng/µl
Detection Range BSA	0.003 - 3.7 mg/ml
Photometric Range	0 - 2.6 A
Center Height (Z-Height)	8.5 mm
Cell Types	Outside dimension 12.5 x 12.5 mm
Heating	37 °C ± 0.5 °C

Processing Power & Compatibility	
Operating System	Linux based NPOS
Onboard Processor	Intel Celeron dual core 2.4 GHz
Internal Data Storage	C40, N50, N60, NP80: 32 GB N120: 128 GB
Software Compatibility	Windows 7, 8, 10 (32 & 64 bit) OS X, iOS Android OS

Optical Specifications	
Wavelength Scan Range	C40, N60, NP80, N120: 200 - 900 nm N50: 200 - 650 nm
Measure Time For Full Scan Range	C40, N50, N60, NP80: 2.5 - 4.0 sec N120: 1.7 - 2.5 sec per sample
Wavelength Reproducibility	C40, N60, NP80, N120: ± 0.2 nm N50: ± 1 nm
Wavelength Accuracy	C40, N60, NP80, N120: ± 0.75 nm N50: 1.5 nm
Bandwidth	C40, N60, NP80: < 1.8 nm N50: 5 nm N120: < 2.5 nm
Absorbance Reproducibility	N60, NP80: < 0.002 A (0.67 mm path) @ 280 nm N50: < 0.004 A (0.67 mm path) @ 280 nm N120: < 0.004 A (1 mm path) @ 280 nm
Absorbance Accuracy	< 1.75% @ 0.7 A @ 280 nm of the reading
Stray Light	N60, NP80: < 0.5% @ 240 nm using NaI N50: < 2% @ 240 nm using NaI N120: < 1% @ 240 nm using NaI
Optical Arrangement	1 x 3648 CCD Array
Lamp	Xenon flash lamp
Lifetime	10^9 flashes, up to 10 years

General Specifications	
Main Body Size	200 x 200 x 120 mm
Weight	3.8 - 5.2 kg depending on configuration
Operating Voltage	90 - 250 V, 50/60 Hz, 90 W, 18/19 VDC
Display	1024 x 600 pixels; glove compatible touchscreen
Built-in Battery Pack	Optional rechargeable lithium ion battery: C40, N60, NP80: 95 Wh, 6.6 Ah, 8 h N120: 47.5 Wh, 3.3 Ah, 3 h Min. charging cycles: 800
Certification	CE, IEC 61010-1:2012 and EN 61326-1:2013
Battery Certification	IEC 62133 and UN38.3 transport test
In & Output Ports	2x USB A, USB B, HDMI, Ethernet, WiFi
Security	Slot for Kensington lock

Reviews

"Awesome machine. I would purchase another one for additional labs."

Rating: 5.0 ★★★★★

Application Area: Genetics Academic Laboratory - Microarray Core

"I love the dynamic range for RNA/DNA measurements. We did our own in house check for reproducibility. The interface is very user friendly and easier to use than ... We like that we can use 1 ul of precious sample for an accurate reading rather than the required 1.5ul for ... (...) This has been a god-send. We have very low concentration samples that are very precious and this allows us to make measurements on these types of samples. Also, after doing PCR amplification, we no longer have to make dilutions for the upper limit readings due to the large dynamic range."

Twyla Juehne
Organization: Washington University School of Medicine

"Great machine with great results"

Rating: 5.0 ★★★★★

Application Area: Analysis of RNA, DNA, and protein concentrations

"This is an easy to use machine that gives great results. We have run it against several standard curves. Would definitely recommend it."

George Perry
Organization: South Dakota State University