

# 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

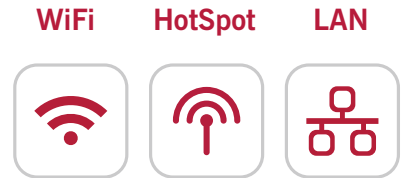


#### Regulatory Compliance, Certainty in Real Time and IQ/OQ Package

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



#### 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		Optical Specifications	
Detection Range dsDNA	N60, NP80: 1 - 16,500 ng/μl N50: 5 - 7,500 ng/μl N120: 2 - 8,000 ng/μl	Wavelength Scan Range	C40, N60, NP80, N120: 200 - 900 nm N50: 200 - 650 nm
Detection Range BSA	N60, NP80: 0.03 - 478 mg/ml N50: 0.15 - 217 mg/ml N120: 0.06 - 230 mg/ml	Measure Time For Full Scan Range	C40, N50, N60, NP80: 2.5 - 4.0 sec N120: 1.7 - 2.5 sec per sample
Sample Volume	N50, N60, NP80: 0.3 - 2 μl N120: 2 - 3.5 μl	Wavelength Reproducibility	C40, N60, NP80, N120: ± 0.2 nm N50: ± 1 nm
Photometric Range (10 mm equivalent)	N60, NP80: 0.02 - 330 A N50: 0.1 - 150 A N120: 0.04 - 160 A	Wavelength Accuracy	C40, N60, NP80, N120: ± 0.75 nm N50: 1.5 nm
Path Length	N50, N60, NP80: 0.67 & 0.07 mm N120: 1 and 0.125 mm	Bandwidth	C40, N60, NP80: < 1.8 nm N50: 5 nm N120: < 2.5 nm
Dilution Factor	N50, N60, NP80: 15 and 140 N120: 10 and 80	Absorbance Reproducibility	C40, NP80 (Cuvette): < 0.002 A @ 0 - 0.3 A @ 280 nm CV < 1% @ 0.3 - 2.0 A @ 280 nm N50 (Lid 15): < 0.004 A @ 0 - 0.3 A @ 280 nm CV < 1% @ 0.3 - 1.5 A @ 280 nm N60, NP80 (Lid 15): < 0.002 A @ 0 - 0.3 A @ 280 nm CV < 1% @ 0.3 - 1.7 A @ 280 nm N120 (Lid 10): < 0.004 A @ 0 - 0.3 A @ 280 nm CV < 0.4% @ 0.8 A @ 280 nm
Vortex	N60, NP80: 2,800 rpm Tube size up to 2.0 ml	Absorbance Accuracy	< 1.75% @ 0.7 A @ 280 nm of the reading
Cuvette Performance – NP80 & C40		Stray Light	N60, NP80, C40: < 0.5% @ 240 nm using NaI N50: < 2% @ 240 nm using NaI N120: < 1% @ 240 nm using NaI
Detection Range dsDNA	0.1 - 130 ng/μl	Optical Arrangement	1 x 3648 CCD Array
Detection Range BSA	0.003 - 3.7 mg/ml	Lamp   Lifetime	Xenon flash lamp   10 <sup>9</sup> flashes, up to 10 years
Photometric Range	0 - 2.6 A	General Specifications	
Center Height (Z-Height)	8.5 mm	Main Body Size	200 x 200 x 120 mm
Cell Types	Outside dimension 12.5 x 12.5 mm	Weight	3.8 - 5.2 kg depending on configuration
Heating	37 °C ± 0.5 °C	Operating Voltage	90 - 250 V, 50/60 Hz, 90 W, 18/19 VDC
Processing Power & Compatibility		Display	1024 x 600 pixels; glove compatible touchscreen
Operating System	Linux based NPOS	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
Onboard Processor	Intel Celeron dual core 2.4 GHz	Certification	CE, IEC 61010-1:2012 and EN 61326-1:2013
Internal Data Storage	C40, N50, N60, NP80: 32 GB N120: 128 GB	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
Software Compatibility	Windows 7, 8, 10 (32 & 64 bit) OS X, iOS Android OS		

## 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