

Precision meets Beauty

NanoPhotometer® N60

Microvolume Spectroscopy



Microvolume Capability Built-in Vortex

Starting with only 0.3 μ l of sample



Full Scan

3.5 seconds per reading
200 to 900 nm
Resolution better than 1.8 nm



Certainty in Real Time and IQ/OQ Package

Blank Control™, air bubble and impurity recognition
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 10 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 | | Zero Stability | ±0.003 A/hour after 20 min warm up @ 280 nm |
| Detection Range dsDNA | 1 ng/μl to 16,500 ng/μl (N50: 5 ng/μl to 7,500 ng/μl) | Noise | 0.002 A rms at 0 A @ 280 nm 0.002 A (pk to pk) at 0 A @ 280 nm |
| Detection Range BSA | 0.03 mg/ml to 478 mg/ml (N50: 0.15 mg/ml to 217 mg/ml) | Optical Arrangement | 1 x 3648 CCD Array (N50: 1 x 1024 CCD Array) |
| Minimum Sample Size | 0.3 μl | Lamp | Xenon flash lamp |
| Photometric Range (10 mm equivalent) | 0.02 - 330 A (N50: 0.1 - 150 A) | Lifetime | 10 ⁹ flashes, up to 10 years |
| Path Length | 0.67 and 0.07 mm | Processing Power & Compatibility | |
| Dilution Factor | 15 and 140 | Operating System | Linux based NPOS |
| Vortexer | 2,800 rpm; tube size up to 2.0 ml | Onboard Processor | Quad Core 1 GHz |
| Cuvette Performance | | Internal Storage | 32 GB |
| Detection Range dsDNA | 0.1 ng/μl to 130 ng/μl | Control Options | Onboard with built-in Touchscreen, Computer, Smartphone and Tablet |
| Detection Range BSA | 0.003 mg/ml to 3.7 mg/ml | Software Compatibility | Windows 7, 8, 10 (32 & 64 bit), OS X, iOS & Android OS |
| Photometric Range | 0 - 2.6 A | Min. Requirement Smartphone/Tablet | 4" screen; Apple: iPad 2, iPhone5 & iOS 6; Android Phone: OS version 4.4; Android Tablet: OS version 5.0, Quadcore 1.2 GHz with 1 GB RAM |
| Center Height (Z-Height) | 8.5 mm | General Specifications | |
| Cell Types | Outside dimension 12.5 x 12.5 mm | Main Body Size | 20 cm x 20 cm x 12 cm |
| Heating | 37 °C ± 0.5 °C | Weight | 3.8 - 5.2 kg depending on configuration |
| Optical Specifications | | Operating Voltage | 90 - 250 V, 50/60 Hz, 60 W (90 W with battery pack), 18/19 VDC |
| Wavelength Scan Range | 200 - 900 nm (N50: 200 - 650 nm) | Display | 1024 x 600 pixels; Touchscreen glove compatible |
| Measure Time For Full Scan Range | 3.5 - 6.0 seconds | Built-in Battery Pack | Optional rechargeable lithium ion battery; 95 Wh, 6.6 Ah; Operation time: up to 10 h; min. charging cycles: 800 |
| Wavelength Reproducibility | ± 0.2 nm (N50: ± 1 nm) | Certification | CE, IEC 61010-1:2012 and EN 61326-1:2013 |
| Wavelength Accuracy | ± 0.75 nm (N50: 1.5 nm) | Battery Certification | IEC 62133 and UN38.3 transport test |
| Bandwidth | better than 1.8 nm (N50: 5 nm) | In & Output Ports | 2x USB A, USB B, HDMI, Ethernet, WLAN |
| Stray Light | < 0.5 % at 240 nm using NaI (N50: < 2 %) and < 1 % at 280 nm using Acetone (N50: < 2 %) | Additional Data Input | Mouse & keyboard options |
| Absorbance Reproducibility | < 0.002 A (0.67 mm path) @ 280 nm (N50: < 0.004 A (0.67 mm path) @ 280 nm) | Security | Slot for Kensington lock |
| Absorbance Accuracy | < 1.75 % @ 0.7 A (0.67 mm path) @ 280 nm of the reading | | |

Features and specifications are subject to change without notice.

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