

Designed for Research on an Epic Level

NanoPhotometer® NP80

All-in-One Spectroscopy



Microvolume and Cuvette Capability Built-in Vortex

Starting with only 0.3 μ l of sample
Linear up to 2.6 Abs



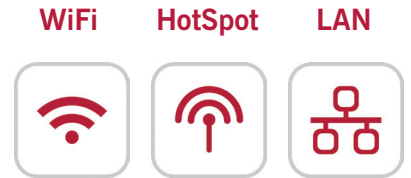
Full Scan

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



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

“I love these machines. They make my job easier.”

Rating: 5.0 ★★★★★

Application Area: Teaching lab/upper divisional Bioc lab

"We have 8 and I am very pleased with how **easy** they are to use. This is a new product for our students and they are able to follow the directions we give them and get results. With any new piece of equipment, there is a learning curve, but it's a small one once they are comfortable using them. I like the fact that they are easy to demo, easy to install updates, and easy to troubleshoot. Compared to our old specs, these **save the students time**, they get results quickly, each group has their own NanoPhotometer at their station... My sales rep is fantastic"

Barbara Pinch

Organization: University of Minnesota

“Great results and very accurate!”

Rating: 5.0 ★★★★★

Application Area: Protein assays and concentrations

"I love love love this machine. It's **portable**, idiot proof, and **accurate**. For its DNA analysis, it is much more accurate than the old familiar... I love the fact that it is so modifiable and easy to use. We use it for a variety of functions in the lab, including **Bradford assays**. I really love that there is a **built-in graph** for these and that you can email it to yourself or save on a USB stick. This machine is the thing we have all been needing but never knew we missed. Also the customer care is outstanding and I look forward to our rep every time she comes."

Andrea Kuipers

Organization: California Institute of Technology