

# The NanoPhotometer™

## Technical Specifications

Wavelength range	190 – 1,100 nm
Wavelength scan range	200 – 950 nm
Measure time for full scan range	Less than 5 seconds
Wavelength reproducibility	< ± 0.2 nm
Wavelength accuracy	± 2 nm
Bandwidth	Better than 5 nm
Stray light	< 0.5% at 220 nm using NaI and 340 nm using NaNO <sub>2</sub>
Photometric range	-0.3 – 2.499 A 0-199% T
Detection Range	dsDNA: 2 ng/μl to 8,000 ng/μl, BSA: 0.1 mg/ml to saturation, approx. 160 mg/ml
Photometric reproducibility	±0.003 A (0 to 0.5 A) ±0.007 A (0.5-1.0 A) @ 260 nm
Photometric accuracy	±0.005 A or ±1% of the reading, whichever is the greater
Zero stability	±0.003 A/hour after 20 min warm up @ 340 nm
Noise	0.002 A rms at 0 A @ 260 nm 0.005 A (pk to pk) at 0 A @ 260 nm
Optical arrangement	Dual channel Czerny Turner with flat grating, 1024 pixel CCD array, concave mirrors
Lamp	Xenon flash lamp
Lifetime	10 <sup>6</sup> flashes, up to 10 years
Warranty	1 year
Performance verification	Auto diagnostics when switched on
Cell types	15 mm centre height, outside dimension 12.5 mm x 12.5 mm
Cuvette storage	capacity for eight 10 mm cells
Photometric mode	Abs, %T, concentration, scan, ratio, multi wavelength, kinetics in ΔAbs x factor/min
Method storage	Up to 90 methods in user methods
Built-in methods	Nucleid acid, microarray (labeling efficiency), protein and cell density
Display formats	320 x 240 pixels
Size	140 mm x 275 mm x 380 mm
Weight	< 4.5 kg
Operating voltage	90-250 V, 50/60 Hz, Max 30 VA
Input / Output ports	SD Memory Card, USB or Bluetooth for connection to a PC for direct data download for spreadsheet calculations, printout and data storage

Features and specifications are subject to change without notice.



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# The NanoPhotometer™

## One spectrophotometer for all your needs

All kinds of UV/Vis photometric applications in molecular biology, biochemistry and microbiology featuring

- ultra low sample volume: starting from 0.7  $\mu$ l
- measurements without cuvettes plus standard cuvette option

- predefined methods for protein and nucleic acid measurements
- full spectrum scan and kinetic methods
- full developed software on-board and direct data download to PC
- high reproducibility



VOLUME

3,500  $\mu$ l

200  $\mu$ l

100  $\mu$ l

0.7  $\mu$ l

### SMALL & FAST

Print data via built-in printer, store data via USB or Bluetooth on your PC

### READY TO USE

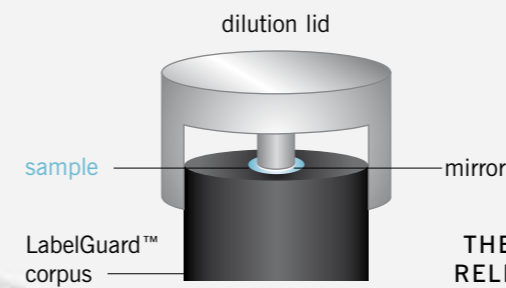
Low bench space requirement, computer independent. Built-in computer with backlit LCD display for fast and easy data access

### ALL IN ONE

Multi purpose sample holder for sub-microliter, standard cuvette and fiber optic applications

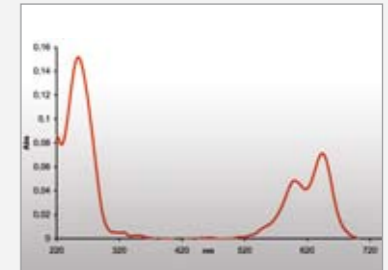
### ULTRA LOW VOLUME, NO SAMPLE DILUTION

LabelGuard™ microliter cell device for sub-microliter measurements included within the system



**THE ONLY TECHNOLOGY FOR RELIABLE PROTEIN ANALYSIS**

No evaporation, volatile solvents possible.



WAVELENGTH

1,100 nm

190 nm

### EASY TO CONTROL

Rugged key pad for fast method selection and easy data entry

EXTENDED RANGE

CELL DENSITY

$8 \times 10^8$  cells/ml

1 cells/ml

NUCLEIC ACIDS

8,000 ng/ $\mu$ l

2 ng/ $\mu$ l

approx. 160 mg/ml

PROTEIN (BSA)

0.1 mg/ml

