



ALPHA Features at a glance...

- 0.3 µl sample volume:** New cell design allows the accurate determination of nucleic acids, proteins and peptides in ultra low sample volumes
- 2 ng/µl to 18,750 ng/µl detection range (dsDNA):** Automatic sample dilution 1:5, 1:10, 1:50, 1:100, 1:250; no dilution errors with minimal hands on time; cuvette capability built-in
- 3.5 seconds per measurement; Instant Ready Technology™:** Turn on and measure without waiting time. Full scan capability from 200 nm to 950 nm
- Flexibility and mobility:** Small volume and cuvette capability; optional data output via built-in printer, SD-RAM Card, USB or BlueTooth; built-in computer allows mobile operation including car adapter option
- Superior design, unique ergonomic concept:** self explaining user interface, easy to clean with removable cell compartment; no cover required for cuvette measurements

ALPHA Features at a glance...

- Precision and lifetime accuracy:** Sealed optics without moving parts eliminates the need for costly recalibration. Avoid evaporation and sample limitations utilizing the patented Sample Compression Technology™
- Retrieval of sample possible,** minimal evaporation of sample.
- Colorimetric Protein Assays and Cell Density analysis** (recommended with cuvettes only) up to OD of 2.5 Abs
- Measurement of kinetics**
- Stable measuring design** with 2 CCD detectors
- Maintenance-free design,** no recalibration necessary; exact and non drifting measuring accuracy over the whole life-time of the technology; no after-sales costs for service or maintenance
- Xenon Flash Lamp** good for up to 10 years
- GLP/GMP compatible**

ALPHA Implen NanoPhotometer Pearl

SPECTROMODULE	
Wavelength range	190 – 1,100 nm
Wavelength scan range	200 – 950 nm
System start up time	Less than 5 seconds, no warm up necessary
Measure time for full scan range	3.5 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 ₂
Photometric range	-0.3 – 2.499 A 0 – 199% T
Detection Range	dsDNA: 0.5 ng/µl to 125 ng/µl, BSA: 0.02 mg/ml to 3.6 mg/ml
Absorbance reproducibility	±0.003 A (0 to 0.5 A), ±0.007 A (0.5-1.0 A) @ 260 nm
Absorbance 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 ⁹ flashes, up to 10 years
Cell types	15 mm centre height (z-height), outside dimension 12.5 mm x 12.5 mm

ALPHA Implen NanoPhotometer Pearl

SMALL VOLUME OPTION	
Detection range	dsDNA: 2 ng/µl to 18,750 ng/µl, BSA: 0.08 mg/ml to 543 mg/ml
Photometric range	0.01 – 1.5 A (10 mm equivalent: 0.05 – 375)
Minimum sample size	0.3 µl
Path lengths	0.04 mm, 0.1 mm, 0.2 mm, 1 mm and 2 mm
Virtual dilution factors	5, 10, 50, 100 and 250
OTHER TECHNICAL DATA	
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 81 methods in user methods
Built-in methods	Nucleic 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; printout and data storage
Performance verification	Auto diagnostics when switched on
Warranty	1 year