

Particle Metrix ZetaView NTA

Specifications

Hardware	
Cell assembly	<ul style="list-style-type: none"> • Z-NTA
Measurement type	<ul style="list-style-type: none"> • Size • Concentration • Fluorescence • Zeta potential
Optical layout	<ul style="list-style-type: none"> • 90° laser scattering video microscope with x10 magnification • Automated alignment and focusing of laser and microscope
Laser	<ul style="list-style-type: none"> • 488 nm laser is available with power at 40mW
Fluorescence filter	<ul style="list-style-type: none"> • Long wave-pass (LWP) cut-off filters at 500 nm
Camera	<ul style="list-style-type: none"> • High sensitive CMOS camera at 640 x 480 pixels with variable frame rate from 1 to 60 Hz

Measurement	
Size/ Concentration	<ul style="list-style-type: none"> • Concentration range: 10^5 – 10^9 particles/ml • Particle size: 10nm – 2000nm (dependent on sample and laser selection) • Accuracy: ± 5nm (for 100nm polystyrene latex) • Reproducibility: ± 2nm (for 100nm polystyrene latex)
Fluorescence	<ul style="list-style-type: none"> • Concentration range: 10^5 – 10^9 particles/ml • Particle size: 20nm – 2000nm (dependent on fluorescent dye and laser selection) • Accuracy: ± 5nm (for 100nm polystyrene latex) • Reproducibility: ± 2nm (for 100nm polystyrene latex)
Zeta Potential	<ul style="list-style-type: none"> • Working range: -500 to +500mV • Concentration range: 10^6 – 10^{10} particles/ml • Particle size: 10nm – 5000nm (dependent on sample and laser selection) • Conductivity range: $3\mu\text{S/cm}$ – 15mS/cm • Accuracy: ± 4mV (for alumina zeta potential standard) • Reproducibility: ± 2mV (for alumina zeta potential standard)
General	<ul style="list-style-type: none"> • Minimum sample quantity: 500μl of sample at 10^5 particles/ml • pH range: 1 – 13 • Temperature: control: 5°C to 45°C (external temperature) • Sample volume visualised and tracked by the camera for a single measurement: 11 x 3.3 nL