

# SPECIFICATIONS

## Zetasizer Nano Family



Zetasizer Nano S

Zetasizer Nano ZS

### PARTICLE SIZE AND MOLECULAR SIZE

Measurement range:	0.3nm - 10.0 microns* (diameter)	0.3nm - 10.0 microns* (diameter)
Measurement principle:	Dynamic Light Scattering	Dynamic Light Scattering
Measurement angle:	173°, 13°, 90° <sup>1</sup>	173°, 13° <sup>1</sup>
Minimum sample volume:	12µL	12 µL
Accuracy:	Better than +/-2% on NIST traceable latex standards	Better than +/-2% on NIST traceable latex standards
Precision / Repeatability:	Better than +/-2% on NIST traceable latex standards	Better than +/-2% on NIST traceable latex standards
Sensitivity:	0.1mg/mL (Lysozyme)	0.1mg/mL (Lysozyme)

### ZETA POTENTIAL (AND OPTIONAL PROTEIN MOBILITY)

Measurement range:	-----	3.8nm - 100 microns (diameter)*
Measurement principle:	-----	Electrophoretic Light Scattering
Minimum sample volume:	-----	150µL (20µL using diffusion barrier method)
Accuracy:	-----	0.12µm.cm/V.s for aqueous systems using NIST SRM1980 standard reference material
Sensitivity:	-----	10mg/mL (BSA).

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## MOLECULAR WEIGHT

Measurement range:	980Da – 20M Da*	980Da – 20M Da*
Measurement principle:	Static Light Scattering using Debye plot	Static Light Scattering using Debye plot
Minimum sample volume:	12µL (3-5 sample concentrations required)	12µL (3-5 sample concentrations required)
Accuracy:	+/- 10% typical	+/- 10% typical
Precision / Repeatability:	Better than +/-2% on NIST traceable latex standards	
Temperature control range:	0°C - 90°C +/-0.1**, 120°C option	0°C - 90°C +/-0.1**, 120°C option
Light source:	He-Ne laser 633nm, Max 4mW	He-Ne laser 633nm, Max 4mW.
Laser safety:	Class 1	Class 1
Power:	100VA	100VA ** at 25°C

## MICRORHEOLOGY (OPTION)

Measurement principle:	-----	Dynamic Light Scattering
Minimum sample volume:	-----	12µL (DLS measurement only) *maximum range, sample dependent

## WEIGHT AND DIMENSIONS

Dimensions (W, D, H):	320mm, 600mm, 260mm (W,D,H)	320mm, 600mm, 260mm (W,D,H)
Weight:	21 kg	21 kg

## OPERATING ENVIRONMENT

Temperature:	10°C - 35°C	10°C - 35°C
Humidity:	35% - 80% non-condensing	35% - 80% non-condensing

## NOTES

Patents:	The Zetasizer Nano range is protected by the following patents: Non-Invasive Back Scatter (NIBS) EP884580, US6016195, JP11051843 High and Low Frequency Electrophoreses (M3) EP1154266, US7217350, JP04727064 Light Scattering Measurements using Simultaneous Detection EP2235501, CN102066901, JP2011523451, US20090251696 Surface Potential Determination in a Dip Cell WO2012172330	The Zetasizer Nano range is protected by the following patents: Non-Invasive Back Scatter (NIBS) EP884580, US6016195, JP11051843 High and Low Frequency Electrophoreses (M3) EP1154266, US7217350, JP04727064 Light Scattering Measurements using Simultaneous Detection EP2235501, CN102066901, JP2011523451, US20090251696 Surface Potential Determination in a Dip Cell WO2012172330
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