SZ-100-S2 Measurement Specifications	
Model	SZ-100-S2 (particle size and molecular weight measurement only)
Measurement principles	Particle size measurement: Dynamic Light Scattering Molecular weight measurement: Debye plot method (static scattered light intensity)
Measurement range	Particle size: 0.3 nm to 10 µm Molecular weight: 1000 to 2 x 107 Da (Debye plot) 540 to 2 x 107 Da (MHS Equation)*1
Maximum sample concentration	40 wt%*2
Particle size measurement accuracy	Measurement accuracy of ±2% for NIST traceable polystyrene latex 100 nm spheres (not including variation in the standard particles themselves)
Measurement angles	90° and 173° (automatic or manual selection)
Cells	Cuvettes
Measurement time	Approx. 2 min. under ordinary conditions (from the start of measurement to the display of results for particle size measurement)
Required sample volume	Minimum volume of 12 µL*3 to 1000 µL (differs depending on cell material)
Usable liquids	Water, ethanol, organic solvents

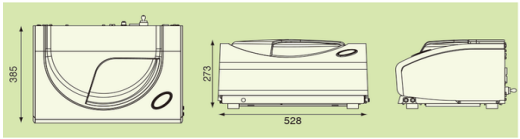
*1: Mark-Howink-Sakurada Equation, depending on sample.
*2: Depending on sample.
*3: F Micro-cell.

SZ-100-Z2 Measurement Specifications Particle size and molecular weight measurement specifications are the same as for the SZ-100-S2	
Model	SZ-100-Z2 (with zeta potential measurement unit)
Measurement principles	Zeta potential measurement: Laser Doppler electrophoresis
Measurement range	-500 to +500 mV
Size range suitable for measurement	Minimum 2.0 nm, Maximum 100 µm*4
Measurement conductivity range	0 to 20 S/m*5
Maximum sample concentration	40 wt%*6
Cells	Dedicated cell with electrodes
Measurement time	Approx. 2 min. under ordinary conditions
Required sample volume	100 µL
Carrier fluids	Water

*4: Depending on sample.
*5: Recommended sample conductivity range: 0 to 2 S/m.
*6: Depending on sample.

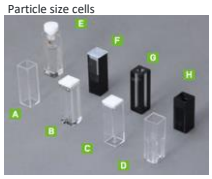
Analyzer Specifications (SZ-100-S2 and SZ-100-Z2)	
Measuring unit optical system	Light source: Diode pumped frequency doubled laser (532 nm, S2 / Z2 10 mW, HS2 / HZ2 100 mW) Detectors: Photomultiplier tubes (PMT)
Laser classification	Class I
Operating temperature and humidity	15 - 35 °C, RH 85% or less (no condensing)
Holder temperature control temperature settings	0 - 90 °C (up to 70 °C for cells with electrodes and plastic cells)
Purging	Dry gas purge port tube connection is possible.
Power supply	AC 100 - 240 V, 50/60 Hz, 150 VA
Dimensions	528 (W) x 385 (D) x 273 (H) mm (excluding protrusions)
Weight	25 kg
Personal computer	Windows computer with one available USB port
Interface	USB 2.0 (between measuring unit and PC)
OS	Windows® 10 32/64 bit

Dimensions (mm)



Accessories

Particle size cells



Cell Name	Min Volume	Solvent
A Disposable Cell	1.2 mL	Aqueous
B Semi-micro cell	500 µL	Aqueous, non- aqueous
C Glass Cell	1.2 mL	Aqueous, non- aqueous
D Semi-micro disposable cell	600 µL	Aqueous
E Cell with lid	1.2 mL	Aqueous, non- aqueous
F Micro cell (90° only)	12 µL	Aqueous, non- aqueous
G Sub-micro cell	200 µL	Aqueous, non- aqueous
H Flow cell	100 µL	Aqueous, non- aqueous