

SPECIFICATIONS

Saturn DigiSizer® II



LASER

Type	Solid-state, Diode
Wavelength	658 nm
Power Output	6 to 9 mW
Beam Type	Parallel
Beam Width (in sample)	16 mm Certified under IEC 825 as a Class 1 laser product

LENS

Focal length, 200 mm (fixed)

DETECTOR

Number of Elements	3,407,872
Geometry	Rectangular array with 3328 x 1024 pixels used at 14 different angles to yield the equivalent of over 47 million elements
Alignment	Automatic

SAMPLE CIRCUIT

Circulation Pump Rate	5 to 19 L/min (Standard sample handler) 2 to 12 L/min (Low-volume sample handler)
Circulation System Volume	590 to 690 mL (Standard sample handler) 100 to 120 mL (Low-volume sample handler)
Materials Routinely Contacting Sample	Borosilicate glass; stainless steel; Tygon® (fuel grade) tubing; Titanium; Kel-F (CTFE); epoxy; Ertalyte®; Viton® F and Kalrez (Low-volume sample handler only)

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OUTPUT

Measurement Range	0.04 to 2500 m Equivalent Spherical Diameter (Standard sample handler) 0.04 to 750 m (Low-volume sample handler)
Measurement Time	Less than 5 minutes, sample to sample
Size Class Range	40 per decade for four decades

DECONVOLUTION

Mie theory and Fraunhofer theory models applied

ELECTRICAL

Voltage	Saturn DigiSizer II: 100/115/220/240 VAC Sample Handler: 85 to 264 VAC
Frequency	47 to 63 Hz
Power	Saturn DigiSizer II: 150 VA Sample Handler: 100 VA

COMPUTER REQUIREMENTS

Minimum requirements	32 bit, Windows® 7 Professional or higher operating system 512 megabytes of main memory 20-gigabytes hard drive CD-ROM drive Ethernet port* (capable of communicating with a 10 base-T or 100-TX card) 1024 x 768 monitor display capability
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ENVIRONMENT

Temperature	Ambient + 10 to 35 °C, operating -10 to 55 °C, storing or shipping
Humidity	Up to 90% (non-condensing)

PHYSICAL

*An additional ethernet port is required if the computer is to be connected to a network.

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Saturn DigiSizer	Height: 50 cm (19.7 in.) Width: 47 cm (18.5 in.) Depth: 65 cm (25.6 in.) Weight: 45 kg (99 lbs)
Sample Handler	Height: 50 cm (19.7 in.) Width: 27.5 cm (10.8 in.) Depth: 65 cm (25.6 in.)

**Due to continuous improvements, specifications are subject to change without notice.*