

Saturn DigiSizer™ II

High Definition Digital Particle Size Analyzer

Specifications

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)

Output

Measurement range:	0.04 to 2500 µm Equivalent Spherical Diameter (Standard sample handler); 0.04 to 750 µm (Low-volume sample handler)
Measurement time:	Less than five 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

Minimum requirements:	Computer capable of running Windows XP Professional or Windows Vista Business or Ultimate operating system 512 megabytes of main memory 20-gigabyte 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
	*An additional ethernet port is required if the computer is to be connected to a network.

Environment

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

Physical

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.)

In keeping with a policy of ongoing product improvement, specifications are subject to change without notice.