

# LARGE SURFACE ANALYZER – LSA

## SPECIFICATIONS



**Product group specifications**

LSA

**Camera system**

Connection	USB 3.0
Performance	2 × CF02: 10 fps at 1000 × 700 px

**Optics**

Focus	fixed focus
Zoom	fixed focal length
View angle	2°
Field of view	2 × CF02: 4.7 mm × 3.3 mm
Resolution	2 × CF02: 5 μm

**Illumination**

Type	high Power LED
Wave length, dominant	468 nm
Field of light	5 mm × 23 mm (D × H)

**Dosing system**

Dosing	double pressure dosing	single direct dosing
Drop deposition	software-controlled	
Cartridge/syringe, volume	disposable cartridge (1 mL)	disposable syringe (1 mL)
Resolution	0.1 μL	
Speed	fixed	

**Portal system axes (x, y, z)**

Control	software-controlled
Length	option 1: x: 565 mm, y: 495 mm, z: 85 mm option 2: x: 2900 mm, y: 3150 mm, z: 85 mm option 3: custom size
Resolution	0.001mm
Accuracy	0.05 mm

**Software**

ADVANCE	contact angle surface free energy of solids
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## Measurement specifications

LSA

### Sessile drop

Result	contact angle
Range <sup>2)</sup>	0 to 180°
Resolution <sup>2)</sup>	0.1°
Accuracy <sup>3)</sup>	0.8°
Model	conic section, polynom, circle, Young-Laplace, height-width
Type	static

### Surface free energy of solids

Result	surface free energy
Model	equation of states, Zisman, Fowkes, Wu, Owens-Wendt-Rabel-Kaelble

## General specifications

LSA

### Sample dimensions

Maximum measurable surface	option 1: 565 mm × 495 mm option 2: 2900 mm × 3150 mm
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### Housing and peripherals

Compartment	stainless steel
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### Environment

Temperature	operating: 10 to 40 °C storage: -10 to 70 °C
Humidity	without condensation

### Instrument dimensions

Footprint	option 1: 1010 mm × 960 mm (W × D)
Height	540 mm
Weight (without accessories)	100 kg

### Power

Voltage	2 × 90 to 264 V
Power consumption	560 W
Frequency	47 to 63 Hz

### Interfaces

PC	USB 3.0
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<sup>2)</sup> software-based

<sup>3)</sup> instrument-based

