

Mobile Surface Analyzer

MSA Flexible Liquid

Specifications



Product group specifications

MSA Flexible Liquid

Camera system

Connection	USB 3.0
Performance	25 fps at 1000 × 700 px

Optics

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

Illumination

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

Dosing system

Dosing	single direct dosing
Drop deposition	software-controlled
Cartridge (volume)	disposable cartridge (1 mL)
Resolution	0.25 μL
Speed	2.7 μL/s – 100 μL/s

Software

ADVANCE	contact angle surface free energy of solids
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Measurement specifications
MSA Flexible Liquid
Sessile drop

Result	contact angle
Range (software-based)	0 to 180°
Resolution (software-based)	0.01°
Accuracy (instrument-based)	0.8°
Models	conic section, polynomial, circle, Young-Laplace, height-width
Type	static

Surface free energy of solids

Result	surface free energy (SFE), polar & disperse part, acid & base part, H-bond part
Models	equation of state, Zisman, Fowkes, Wu, Owens-Wendt-Rabel-Kaelble, extended Fowkes, acid-base theory

General specifications
MSA Flexible Liquid
Sample dimensions

Maximum sample size	$\infty \times \infty \times \infty$ (W × D × H)
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Housing and peripherals

Compartment	aluminum
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Environment

Operating temperature	10 °C to 40 °C
Humidity	without condensation

Instrument dimensions

Footprint	84 mm × 32 mm (W × D)
Height	112 mm
Weight (without accessories)	0.85 kg

Power supply

Voltage	5 V (powered via USB)
Power consumption	4.5 W

Interfaces

PC	USB 3.0
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