



# Mobile Surface Analyzer – MSA Flexible Liquid

Specifications



**Product group specifications****MSA Flexible Liquid****Camera system**

Connection	USB 3.0
Performance	10 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 <sup>1)</sup>	0 to 180°
Resolution <sup>1)</sup>	0.01°
Accuracy <sup>2)</sup>	0.8°
Models	conic section, polynomial, circle, Young-Laplace, height-width
Type	static

**Surface free energy of solids**

Result	surface free energy
Models	equation of state, Zisman, Fowkes, Wu, Owens-Wendt-Rabel-Kaelble, extended Fowkes, acid-base theory

<sup>1)</sup> software-based<sup>2)</sup> instrument-based

**General specifications****MSA Flexible Liquid****Sample dimensions**

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

**Housing and peripherals**

Compartment aluminum

**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

Power consumption 4.5 W

**Interfaces**

PC USB 3.0

