

# 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
Max. viscosity	6000 mPas (6000 cP)

##### Software

ADVANCE	contact angle surface free energy of solids
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##### Software languages

Chinese (simplified), English, French, German, Japanese, Korean, Portuguese, Russian, Spanish

**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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