

MOBILE SURFACE ANALYZER – MSA

SPECIFICATIONS



KRÜSS

Advancing your Surface Science

Product group specifications

MSA

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 ¹⁾
Drop deposition	software-controlled	
Cartridge/syringe (volume)	disposable cartridge (1 mL)	disposable syringe (1 mL)
Resolution	0.1 μL	
Speed	fixed	

Software

ADVANCE	contact angle
	surface free energy of solids

Measurement specifications

MSA

Sessile drop

Result	contact angle
Range ²⁾	0 to 180°
Resolution ²⁾	0.01°
Accuracy ³⁾	0.8°
Model	conic section, polynomial, 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

¹⁾ optional

²⁾ software-based

³⁾ instrument-based

General specifications

MSA

Sample dimensionsMaximum sample size $\infty \times \infty \times \infty$ (W × D × H)**Housing and peripherals**

Compartment aluminum

Environment

Temperature operating: 10 °C to 40 °C

Humidity without condensation

Instrument dimensions

Footprint 106 mm × 59 mm (W × D)

Height 112 mm

Weight (without accessories) 0.85 kg

Power

Voltage 5 V

Power consumption 4.5 W

Interfaces

PC USB 3.0

