

Drop Shape Analyzer DSA25



Drop Shape Analyzer – DSA25E
(Expert configuration)



The basic instrument for wetting investigations

Our Drop Shape Analyzer – DSA25 is an easy-to-use, reliable instrument for measuring contact angle. From a simple wetting test to the accurate measurement of surface free energy (SFE), the robust instrument provides flexible options for analyzing wetting and adhesion on solid surfaces. Its rapid, manual sample positioning makes the DSA25 outstandingly suitable for occasional wetting measurements with changing tasks and sample types.

Tasks and applications

- Characterization of surface pretreatment processes
- Checking the wettability of plastic, glass, ceramic, wood, or metal
- Validating surface cleanliness

Measuring methods and options

- Contact angle between a liquid and a solid
- Surface free energy from contact angles of several test liquids using all common models
- Static contact angle, advancing angle, and receding angle
- Measurement of surface tension and liquid-liquid interfacial tension using pendant drop or constrained sessile drop
- Temperature-controlled measurements from -30 to 400 °C
- Measurements at controlled humidity
- Measurements on inclined surfaces

Reliable drop shape analysis thanks to high imaging quality

The DSA25 features a high-resolution camera and a quality zoom lens for accurate display of the drop with optimum size. The high image quality that this achieves leads to a precisely measured contact angle or surface tension. Combined with the intelligent image evaluation algorithm of the ADVANCE software, drop shape analysis with the instrument provides exact results.



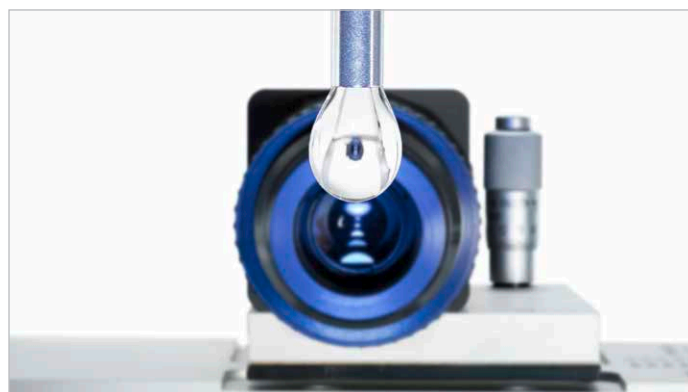
Drop Shape Analyzer – DSA25S (Standard configuration)



Drop Shape Analyzer – DSA25B (Basic configuration)



SFE measurement with two drops using the Liquid Needle



View on a pendant drop for measuring surface tension

Specifications

Camera system

Performance CF04: up to 2300 fps
CF06: up to 3400 fps

Illumination

Type high power monochromatic LED

Dosing system

Max dosing units 1 syringe dosing unit + Liquid Needle, 3 liquids, software-controlled

Liquid Needle dosing (optional)

Resolution 0.1 μ L

External tilting

Range 0 to 90°
Resolution 0.01°

Contact angle

Range 0 to 180°
Resolution 0.01°

Interfacial and surface tension

Range 0.01 to 2000 mN/m
Resolution 0.01 mN/m