

Economical static contact angle meter

Contact Angle Meter DMe-211

The DMe-211 is an economical yet fully-featured contact angle meter with computer image analysis system.

The instrument combines manual droplet volume regulation, precise stage up/down motion for gentle deposition of droplets with "FAMAS" software controlled measurement of static contact angles, as well as measurement of surface and interfacial tension by pendant drop method.

Analysis of surface free energy is possible with the optional available FAMAS software add-in.



FEATURES

- ◆ Automatic droplet recognition and subsequent automatic droplet analysis
- ◆ Fine adjustable stage in z-axis for gentle deposition of droplets without distortion
- ◆ Manual dispenser with a set of 5 glass syringes and SUS needles for precise adjustment droplet volume and quick exchange
- ◆ Adjustable level of the instrument and stage
- ◆ Standard droplet sample, printed with one circular for calibration and three droplet silhouettes for periodic inspection

STANDARD COMPONENTS

Item	Q'ty	Item	Q'ty
• DMe-211 main body ^{*1}	1	• Manual dispenser	1
• Set of 5 glass syringes and 22G SUS needles	1	• Standard droplet sample (standard view)	1
• Acrylic plate (for practice)	1	• Level	1
• USB cable	1	• FAMAS software installation disc	1
• Operation manual (English)	1	• FAMAS licence key	1

^{*1}The main body consists of a CMOS camera, a LED light source, a manual stage devices and a dispenser holder.

* A windows PC, which can be ordered optionally, is required to operate the instrument.

SPECIFICATIONS

Measuring methods	Sessile drop, Pendant drop (by computer image analysis system)
Analysis methods	Contact angle: $\theta/2$ method, tangent method, circle fitting, ellipse fitting Surface and interfacial tension: Young-Laplace, ds/de method
Measuring range	Contact angle: 0 to 180° Surface and interfacial tension: 0 to 100mN/m
Resolution	Contact angle: 0.1° Surface and interfacial tension: 0.1mN/m
Precision	Contact angle: 0.3° Surface and interfacial tension: 0.3mN/m (Repeatability described in standard deviation)
Field of view	Fixed focus, 6.3mm(W) x 4.7mm(H)
Sample size	100mm(W) x 100mm(D) x 10mm(H), max. weight: 300g
Stage movement	Z-axis 10.5mm by manual knob rotation
Droplet dispensing	Manual dispenser with rotation knob
Droplet deposition	By stage up/down movement
Measuring temperature	Ambient
Power requirements	USB bus power
Dimensions, weight	170mm(W) x 346mm(D) x 283mm(H), approx. 1.8 kg
Operating environment	Temperature: +10 to +35°C, Relative humidity: 30 to 80% (non-condensing) Positioned away from sources of electrical noise and vibration.

The specifications are subject to change without notice.

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