

## Economical contact angle meter

# Contact Angle Meter DMe-211Plus

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

The instrument combines manual droplet volume regulation and, precise stage up/down motion for gentle deposition of droplets with "FAMAS" software-controlled measurements of contact angles (static and measured as a function of time), as well as measurements of surface and interfacial tension by the pendant drop method.

Analysis software to determine the surface free energy is a standard feature.



### 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 of droplet volume, and fast and easy syringe exchange
- ◆ Adjustable level of instrument and stage
- ◆ Droplet calibration standard, consisting of one full circle for calibration and three droplet silhouettes for periodic inspections of measurement accuracy

### STANDARD COMPONENTS

Item	Q'ty	Item	Q'ty
DMe-211Plus main body <sup>1)</sup>	1	Manual dispenser	1
Set of 5 glass syringes and 22G SUS needles	1	Droplet calibration standard (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

<sup>1)</sup> The main body consists of a CMOS camera, a LED light source, a manual stage devices and a dispenser holder.

### SPECIFICATIONS

Measuring methods	Contact angle: Sessile drop	Surface and interfacial tension: Pendant drop
Analysis methods	Contact angle: Surface and interfacial tension: Surface free energy of solids: <sup>1)</sup>	$\theta/2$ , tangent, curve fitting (ellipse, circle) Young-Laplace, ds/de Owens-Wendt, Kaelble-Uy, Kitazaki-Hata, Wu, acid-base, Zisman
Measuring range	Contact angle: 0 to 180 °	Surface and interfacial tension: 0 to 2000 mN/m
Resolution	Contact angle: 0.01 °	Surface and interfacial tension: 0.01 mN/m
Accuracy <sup>1)</sup>	Contact angle: 0.3 °	Surface and interfacial tension: 0.3 mN/m
Field of view	Fixed focus, 6.3 mm (W) x 4.7 mm (H)	
Sample size	160mm (W) x 100mm (D) x 10mm (H), max. weight: 300 g	
Stage movement	10.5mm in z-axis, manually via rotation knob	
Droplet dispensing	Manual dispenser	
Dispensing resolution	0.1 $\mu$ l	
Droplet deposition	Manually via stage up/down movement	
Measuring temperature	Ambient	
Power supply	USB bus power (a windows PC, which can be ordered optionally, is required to operate the instrument)	
Dimensions, weight	170 mm (W) x 346 mm (D) x 283 mm (H), 1.8 kg	
Operating environment	Temperature: +10 to +35 °C, humidity: 30 to 80 %RH (non-condensing) Positioned away from sources of electrical noise and vibration.	

<sup>1)</sup> Accuracy is the repeatability in terms of standard deviation based on manufacturer's calibration standard.

For detailed information, please contact our sales partner or us directly at +81-48-483-2629 or at [overseas-sales@face-kyowa.co.jp](mailto:overseas-sales@face-kyowa.co.jp).

Specifications and designs are subject to change without notice.

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