

FPD-CP11

Contact angle meters for large size samples

Evaluate efficiencies of surface treatment and cleanliness.

- **Save installation space and cost**

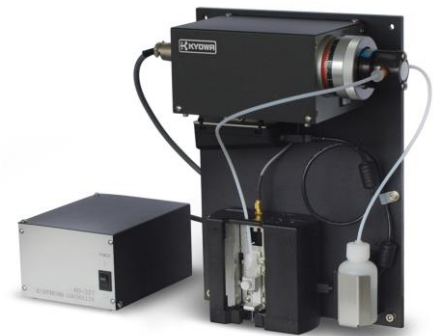
It is possible to reduce setting space and cost by common use of stage and LD/ULD robot when it is installed on equipment with working stage (ex. Film thickness measuring equipment).

FPD-CP11 has a large capacity pump dispenser with a 50ml bottle, enables **Contact angle measurement of proximal point**

It is possible to measure contact angle in the proximal point of 10mm pitch. There is no trouble that other measuring droplet breaks into, caused by conventional contact angle system

- **The base does not contact the surface of substrates.**

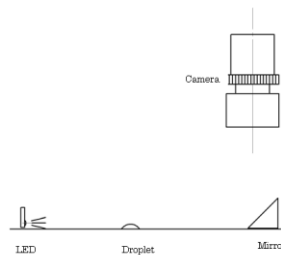
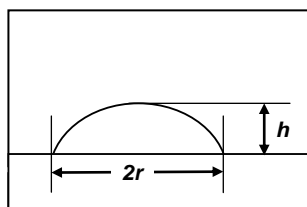
Contact angle is so sensitive that even a monolayer order of organic contamination changes contact angle results. For preventing the substrates condition from being changed by contaminations, they are designed not to contact the substrates surface.



Measurement principle

The $\theta/2$ method analyzes contact angle from the data $2r$ and h obtained by the droplet silhouette of cross sectional view.

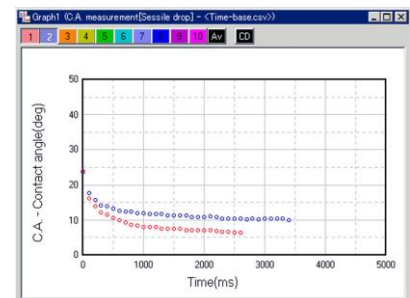
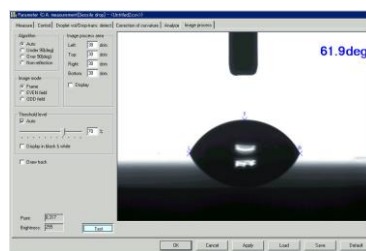
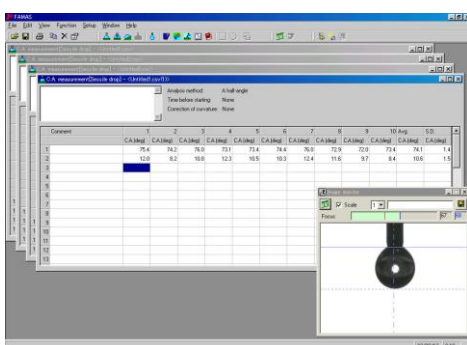
FPD-CP11 obtains the droplet silhouette of cross sectional view by use of the mirror refracting the optic by 90 degrees.



FAMAS software

Include FAMAS (interFACE Measurement & Analysis System) as standard software.

It displays the date of contact angle measurement and graphs out. Furthermore, it enables to characterize adhesiveness of modified surface or thin film by surface free energy analysis, which is optional function.



| | |
|---------------------------------------|---|
| Organic contamination on panel | Contact angle between DI water and panel |
| Wettability between resist and panel | Contact angle between resist liquid and panel |
| Resist residual after removal process | Contact angle between DI water and panel |
| Adhesive property of coated film | Surface free energy analysis |
| Special evaluation of LC orientation | Distribution of surface free energy on panel |

■ Specifications

| | FPD—CP11 |
|-------------------|---|
| Measuring method | Sessile Drop Method |
| Analysis method | $\theta/2$ method, Circle fitting method, Ellipse fitting method, Tangent method |
| Measuring range * | 0° ~ 180° |
| Accuracy | 0.5° (*Accuracy is repeatability described in standard deviation on manufacturer's standard analyzed by $\theta/2$ method.) |
| Resolution | 0.1° |
| Measuring temp. | Ambient temperature (Performance guarantee temp. 15~35°C) |
| Sample size | Depends on capacity of working stage of host instrument |
| Positioning | Depends on recipe of host instrument |
| Dimensions (mm) | 220W × 111D × 305H |
| Weight (kg) | CP11 5kg (head part only) |
| Power supply | Main unit: 2W (DC5V USB power) Pump:13W 37VA (AC100 - 240V 50/60Hz) |
| Liquid dispensing | Metering pump with 50mL bottle |
| Detection method | Automatic image analysis |

* Contact angle is so sensitive that even a monolayer order of organic contamination changes contact angle results.

* Specifications and design are subject to change without notice

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