



Contact angle & surface tension analyzer

World's first

**THE NEW STAGES
THAT DEFINE
PERFORMANCE**

A new level of designing performance and flexibility

It is the world's first model that can be used by turning the equipment, the individual modules can be separated, and the length of each main frame can be selected to change the model to suit almost all samples.

Any Sample

By the transform device, able to make suitable condition of hardware easily

Any Application

All modules are placeable for several different sample

New stage1.

- Every main frame is able to change the length for it's sample figure



New stage2.

- Use it on horizontally and vertically
- Depend on sample feature It can be transformed



Common mode



Vertical mode



Contact angle & surface tension analyzer

New stage3.

- Every module is able to upgrade

LED module

The system light source that minimizes light distortion and supports super-low contact angle measurement

Head module

Easy to module upgrade
(Manual - Auto one drop - One single touch - Multi syringes touch)

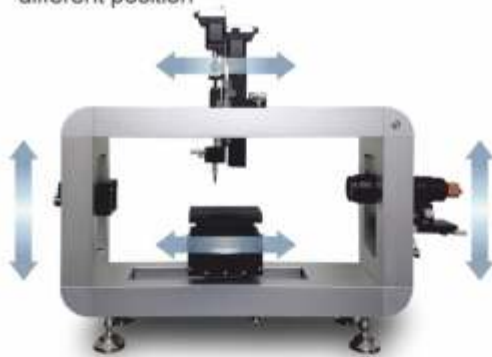
Versatile sample stage module

Camera stage

Prealigned and optimized for consistent camera / lens performance

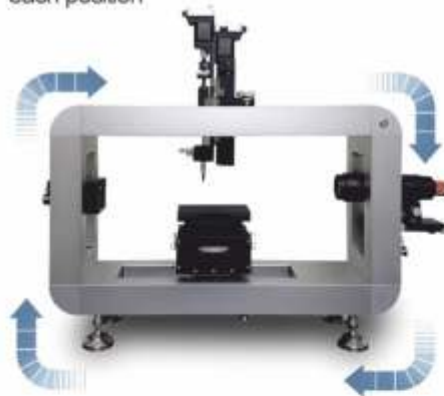
New stage4.

- Every module is able to make different position



New stage5.

- Every module is able to change each position



New stage6.

- Without tools able to change position



Features

- **Flexibility** : Easy to upgrade (Manual → Auto one drop → Single touch → Multi syringes Touch) by modularization
- **Automation** : Automatic measurement progress at once
- **User friendly** : Easy to transform for changed sample figure
- **No need the tools** : No need tools required for modules change
- **Module position changeable** : According to Sample figure is changed, Module is able to change the position
- **Huge Application** *Thin sample* : use on Horizontal platform
Thick sample : move all module (camera, light, stage, head) and turn device
- **Data output** : Data can be exported as an Excel file, offering the highest flexibility

Capabilities

- Static/dynamic contact angle (captive method & tilting method)
- Surface energy calculation
- Surface tension and interfacial tension by Pendant drop method
- Curved sample measurement
- All process (from make drop to measured data) are by one click (at touch system)



Contact angle & surface tension analyzer

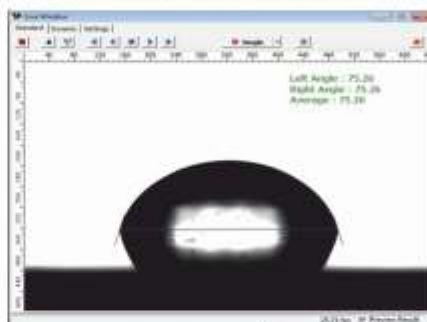
○ Optional ● Basic

Hardware	Phoenix-MT(M)	Phoenix-MT(A)	Phoenix-MT(T)	Remark
Main frame (High class surface treatment)	○	○	●	Upgradeable
Linear guide	○	○	○	
Dispensing type	Manual	Auto one drop	Touch drop	Upgradeable
Sample stage	fixed	X,Y axis frictional sliding	X,Y axis linear sliding	Upgradeable
Camera stage	fixed	Tilting	Tilting + moving F&B	

Software	Phoenix-MT(M)	Phoenix-MT(A)	Phoenix-MT(T)	Remark
Static contact angle	●	●	●	
Dynamic contact angle	○	●	●	Upgradeable
Surface tension by pendent drop	●	●	●	
Auto one drop capture	○	●	●	Upgradeable
Curved sample measurement	○	●	●	Upgradeable
All process are automatic	○	○	●	Upgradeable

Main options	Phoenix-MT(M)	Phoenix-MT(A)	Phoenix-MT(T)	Remark
Mapping control of sample stage	X	○	○	
Syringe heating (°C/°F)	○	○	○	Amb to (180 / 356)
Heating plate (°C/°F)	○	○	○	Amb to (350 / 662)
Cooling chamber (°C/°F)	○	○	○	Amb to (-40 / -104)
Heating chamber (°C/°F)	○	○	○	Amb to (300 / 562)
Nano / Pico dispensing	○	○	○	Up to 50 Picoliter
Captive bubble kit	○	○	○	
Entire tilting system	○	○	○	0-90degree

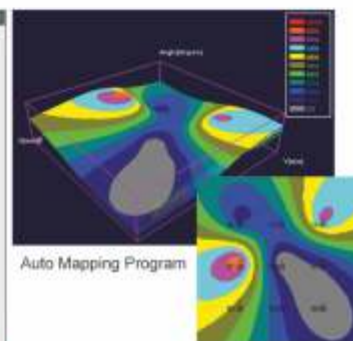
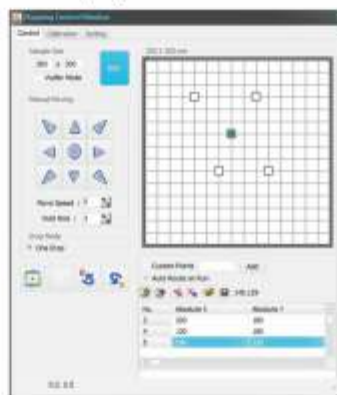
Sessile Drop Contact Angle with Preview Results



Pendent Drop Surface Tension



Auto mapping



- Individual measurement at each point
- 2D and 3D graphical analysis

Technical Data

- Max. Sample size (L x D x H, in / mm) 15.7 x ∞ x 13.7 (400 x ∞ x 350) Standard or Customizing
- Device Dimension (L x D x H, in / mm) 31.5 x 6.2 x 23.6 (800 x 160 x 600) Standard or Customizing
- Lens High resolution Zoom & focusing
- Max. Measuring speed 70 / 315 (Optional) F.P.S
- Contact Angle range 0°~180° deg
- Accuracy ± 0.1° deg (standard Calibration)
- Surface tension range 0.01 ~ 2,000 Dyne / Cm
- Connecting type USB 2.0, 3.0
- Operating system Windows 7, Window 8, Window 10
- Power 110 / 220 volt, 50 / 60Hz

Dynamic Contact Angle (Advancing & Receding)



Surface Energy Calculator



Surface Electro Optics

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