

# Contact Angle Analyzer

## Phoenix-Smart

The Phoenix series is designed to offer the flexibility required for Q.A, R&D and engineering process development. The Phoenix-Smart (M.A) has been especially designed to be an upgradable and portable device that is easy and convenient to use. The Phoenix-Smart (M.A) is virtually measure any sample size without sample cutting preparation. Light-weight means simply control device and simply handling. Phoenix-Smart (M.A) adopted USB type camera. Easily connect to notebook and desk top computer device with Surfaceware software.

### Features

- Data checking instantly without open analysis window by preview result function
- High-resolution and powerful image capture system
- Able to connect to Notebook or Desktop PC via one port
- Improved precision and reproducibility by the elimination of operator error
- Device Inner condition checking window
- The Up-gradable basic design (manual to Auto one drop)
- Light-weight
- LED light source
- Applicable to ultra-low contact angle of high light reflection

### Capabilities

- Sessile drop method
- Static contact angles
- Surface tension by pendent drop method
- Dynamic contact angle (Auto drop model)
- Easy surface energy calculation process
- One Touch button control drop volume, capture time (Auto drop model)
- Head module moves up and down manually (Manual & Auto drop model)
- Sequence image is captured by appointed interval time basis
- Data comparison function
- Precisely calculates drop volume
- Auto captures at Thermodynamic equilibrium
- Auto avoid image noise (New function)



Phoenix-Smart (M)  
(Manual)



Phoenix-Smart (A)  
(Auto one drop)



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### Typical Application

- Semiconductor applications.
- Detection of organic contamination on PCB and electronic components.
- Evaluation of cleanliness / treatment / coating processing.
- Inormation of hydrophobicity or hydrophilicity solid surfaces.
- Biological application such as the detection and characterization of proteins.
- Analysis of plasma treatments to increase the wettability on polymers surfaces.

### Technical Data

- |                         |   |
|-------------------------|---|
| • Sample size           | Virtually unlimited   |
| • Max Measuring speed   | 70 FPS  |
| • Light Source          | LED   |
| • Contact Angle range   | 1°~180°   |
| • Accuracy              | ± 0.1° deg  |
| • Surface tension range | 1 ~ 1000 mN/m   |
| • Connecting type       | USB   |
| • Operating system      | Windows 7, Window 8, Window 10  |
| • Dimension (mm)        | Manual : 90(W) x 56(D) x 153(H)<br>Auto type : 90(W) x 80(D) x 153(H) |

### Option

- Software control tilting stage



Phoenix-Smart  
(Manual, Auto one drop)

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