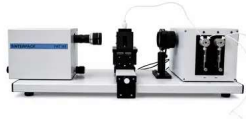


PAT-1M

Profile Analysis Tensiometer



Modular optical tensiometer for surface and interfacial characterization using pendant-drop, buoyant-bubble and sessile-drop analysis. The PAT-1M supports time-resolved tension measurements, wetting analysis and dilational interfacial rheology.



1–2000 mN/m Tension range	±0.01 mN/m Resolution	1°–179° CONTACT ANGLE ±0.2° accuracy	100 Hz WITH ODBA-1M High-frequency rheology
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Measurement Performance

Surface / interfacial tension	1 – 2000 mN/m
Tension resolution	± 0.01 mN/m
Contact angle	1° – 179°
Contact angle accuracy	± 0.2°
Measurement duration	Seconds to days
Standard oscillation frequency	0.001 – 0.5 Hz
With ODBA-1M	Up to 100 Hz

Experimental Capabilities

Pendant drop	Surface & interfacial tension
Buoyant bubble	Surface & interfacial tension
Sessile drop	Contact angle
Area / volume control	Automatic
Dilational rheology	Elasticity & viscosity
Temperature range	10 – 100 °C*

Imaging & Acquisition

Camera	3.1 MP CMOS
Maximum resolution	2048 × 1536 px
Standard acquisition	Up to 60 fps
High-speed acquisition	370 / 740 / 1500 fps*
Interface	USB 3.0
Optics	Precision imaging system

Instrument

Dimensions (L × W × H)	700 × 240 × 240 mm
Weight	Approx. 12 kg
Cell volume	Up to 25 ml
Minimum liquid amount	Approx. 100 µl
Power supply	100 – 240 VAC → 24 VDC
Power	55 W

Modules & Configuration Options

ODBA-1M	DPA-1M	DBMM-1M	Automatic Dosing
Dual Dosing	Contact Angle Configuration	Temperature-Controlled Cells	Coaxial Double Capillary

*Performance depends on instrument configuration, camera mode, measuring cell and installed modules. Specifications may be subject to technical modification.