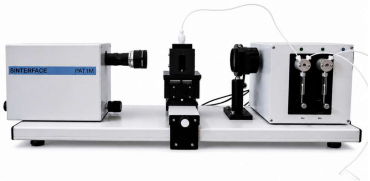
TECHNICAL DATASHEET

PAT-1M

Profile Analysis Tensiometer

Advanced interface characterization

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.



KEY PERFORMANCE

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

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*

SINTERFACE Technologies
Müggelseedamm 70 · 12587 Berlin · Germany
info@sinterface.com
www.sinterface.com

TECHNICAL DATASHEET

PAT-1M

Technical Specifications

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

The modular PAT-1M platform can be adapted with dedicated measurement modules, dosing configurations, cells and capillaries for specialized experimental requirements.

- ODBA-1M
- DBMM-1M
- Dual Dosing
- Temperature-Controlled Cells
- DPA-1M
- SOA-1M
- CA-1M
- CCS-1M

TECHNICAL NOTE

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

PRODUCT

PAT-1M

Profile Analysis Tensiometer

SINTERFACE Technologies
Müggelseedamm 70 · 12587 Berlin · Germany
info@sinterface.com
www.sinterface.com