

## Tensiometry

BPA-1P

BPA-1S

DVA-1

PAT-1

PAT-2P

STA-1

STA-2

DPA-1

## 2D-Rheology

ODBA-1

ISR-1

## Foams

FA-1S

TFA-1

## Emulsions

DBMM-1

## Fluid Dynamics

## Maximum Bubble Pressure Tensiometer BPA-1P



New development based on more than 10 years of experience in bubble pressure measuring technique. Many new instrumental details have been published recently, such as the determination of bubble time characteristics from the gas flow signal.

Four different measuring modes available.

Process controlling option on board.

BPA-1P is the simplified version of the BPA-1S representing the high end instrument in bubble pressure tensiometry.

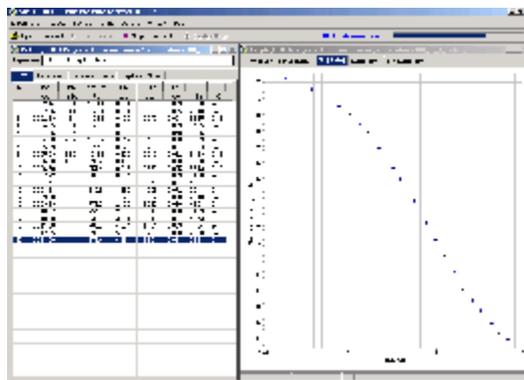
Two different displays - text or graphic - available.

### Features

- direct and precise measurement of dead time and life time
- surface tension as function of physical time and adsorption time
- available time interval of 3 orders of magnitude (0.01 to 10 s)
- precise measurement of correct dynamic surface tensions
- direct determination of the hydrostatic pressure via automatic capillary Immersion
- correction of effects from gravitation and viscosity of the liquid
- temperature monitoring of the sample
- can be used as stand-alone device

## Software

BPA-1P operates as stand-alone instrument. It stores data on board for 180 measurements. Data download from the instrument to a PC via RS-232 or USB port. The software allows graphical display of several measurements for comparison. Graphics with various zoom functions supports the visual analysis of the data. Export as text file or directly into MS Excel.



## Fields of Application

Surfactant science  
Ink jet printing  
Coating technology  
Foam and emulsion technology  
Detergency

Pharmacy  
Cosmetics  
Food technology  
Medicine and biology  
Ecology

## Technical Data

Range of surface and interfacial tension	10 to 100 mN/m;
Reproducibility of measured values	± 0.1 mN/m
Accuracy of surface tension	±0.25 mN/m
Dynamic time range	10 ms to 10 s
Display	
- text display	4 x 20 characters
- graphic display	bw 320 x 240 pixel
Min. volume test liquid	1 ml
Temperature range	room temperature
Experimental time:	
- Standard mode (M1) / Fast Mode (M4)	20-30 min / 4-6 min
Software	Windows software (free update over 1 years after purchase)
Number of measurement point:	
- All scan modes (M1, M3, M4)	max. 180
- Constant mode (M2)	min.30000
Memory on board	2 MB
Process controlling option	on board (functions on request)
Dimensions (L x W x H):	
- Measurement unit / Tripod	70 x 110 x 200 mm / 60 x180 x 300 mm
Weight:	
- Measurement unit / Tripod	1 kg / 2 kg
Power requerment:	
- Measurement unit	12 VDC
- Power supply	100 ... 240 AC; 50 ... 60 Hz
- Max. power consumption	6 W
External battery (optional)	min. operating time 5 h
Extra accessories	capillaries of different diameter, temperature control jacket for 0... 80 °C