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## Tensiometer K11



- Fully automatic SFT and IFT measurement
- High speed sample positioning
- Precise and robust force measuring system
- Menu operated user friendly operation
- Large graphical LC-Display
- Storage of measuring parameters
- Digital output for computer and printer
- Thermostatable jacket with built-in electro-magnetic stirrer (optional)

## SURFACE AND INTERFACIAL TENSION

The Tensiometer K11 combines precise measurements with easy handling and robustness. The large illuminated measuring compartment facilitates user friendly access to sample and measuring devices. The K11 consists of an electronic balance and a precision high speed sample positioning system. The internal microprocessor turns the K11 into a fully automated software controlled Tensiometer. The instrument is controlled from a user friendly control panel with large integrated display. The menu oriented software makes it easy to enter measuring parameters and to perform measurements. The measuring data are shown on the graphical display. They can be printed out or sent to a host computer.

Optional a high speed force compensated balance, a temperature controlled sample jacket with a built-in electro-magnetic stirrer and a density measuring unit is available.

The knowledge of liquid density is a prerequisite for the correction of surface and interfacial tension (SFT / IFT) values measured by ring method.

The density measuring kit DE01 is a very useful accessory.

### MEASURING METHODS

- Ring method (Du Noüy; correction according to Huh & Mason; Harkins & Jordan; Zuidema & Waters)
- Plate method (Wilhelmy)
- Density determination of liquids

### TECHNICAL SPECIFICATION

Measuring Range:

- SFT / IFT 1 – 999 mN/m
- Density 1 – 2200 kg/m<sup>3</sup>

Resolution:

- SFT / IFT ±0.1 mN/m  
(optional: ±0.01 mN/m)
- Density 1 kg/m<sup>3</sup>

Measuring rate:

10 readings/s  
(optional: 20 readings/s)

Max. Lifting range:

100mm

Lifting speed:

0.1 – 500 mm/min

Max. sample weight:

50 g (optional: 100 g)

Max. sample width:

150 mm

Power consumption:

40 VA

Input voltage:

85 – 264 VAC / 40 – 60 Hz

Temperature range:

-10 to +130°C

Temp. measurement:

-60 to +450°C; ±0.1K

Data output:

serial, RS232C

Display:

graphic, 8 lines, 40 characters each

Dimensions:

300 x 540 x 370 mm (WxHxD)

Weight:

16 kg

Technical specifications are subject to change without notice

### BASIC INSTRUMENT / ACCESSORIES

K11	Tensiometer for measuring surface and interfacial tension with data transfer to PC and printer.
TJ0524	Thermostatable jacket with integrated electro-magnetic stirrer (-10 to +130°C) for sample vessels 70 mm diameter.
PR0510	Protocol printer for measurement documentation (40 characters per line).
DE01	Density measuring kit consisting of special Ptlr-suspension and precision density bar made of silicon.
SW0501	Windows Data Logger Software



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