

# FORCE TENSIOMETER – K11

## SPECIFICATIONS



## Product group specifications

K11

### Force measurement

Maximum load	120 g
Resolution	100 µg
Precision	300 µg
Measurement rate	12,5 Hz
Adjustment	automated, external weight
Adjustment weight	CP0503: 100 g <sup>1)</sup>
Locking mechanism	automatic

### Sample stage

Travel distance	>110 mm
Travel speed	0.09 to 500 mm/min
Type of motor	brushless DC servo motor
Simple platform	yes
Thermostated jacket	70 mm (100 mm) <sup>1)</sup>
Integrated sample stage	yes

### Data output

USB-Stick	Microsoft Excel (xml format), report (xps format), txt format
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## Measurement specifications

K11

### Du Noüy ring

Result	surface tension (SFT)/interfacial tension (IFT)
Range	1 to 999 mN/m
Resolution	0.01 mN/m
Correction method	Harkins-Jordan, Huh-Mason, Zuidema-Waters, linear correction, no correction

### Wilhelmy plate

Result	surface tension (SFT)/interfacial tension (IFT)
Range	1 to 999 mN/m
Resolution	0.02 mN/m

### Rod method

Result	surface tension (SFT)/interfacial tension (IFT)
Range	1 to 999 mN/m
Resolution	0.2 mN/m

### Liquid density

Range	1 to 2200 kg/m <sup>3</sup>
Resolution	1 kg/m <sup>3</sup>
Precision	±3 kg/m <sup>3</sup>

<sup>1)</sup> optional

## General specifications

K11

### Temperature control <sup>1)</sup>

Type	liquid
Range	-10 to 130 °C
External circulator	optional

### Temperature measurement

Range	-60 to 450 °C
Resolution	0.01 °C
Precision	±0.05 °C
Accuracy	±0.5 °C
Internal sensor	sample stage <sup>1)</sup>
External sensor	sample vessel <sup>1)</sup>

### Housing and peripherals

Built-in bubble level	yes
Glass windshield doors	yes
Stainless steel measuring compartment	yes
Touch panel	yes
Display	800 × 600 px

### Environment

Temperature	operating: 15 to 30 °C
Humidity	without condensation

### Instrument dimensions

Item	device	touch panel
Footprint	300 mm × 390 mm (W × D)	255 mm × 205 mm (W × D)
Height	585 mm	75 mm
Weight (without accessories)	19 kg	2.3 kg

### Power

Voltage	100 to 240 V
Power consumption	40 W
Frequency	47 to 63 Hz

### Interfaces

USB Stick	USB 2.0
Auxiliary	RS232
Thermostat	quick lock fittings
Inert gas	quick lock fittings

