

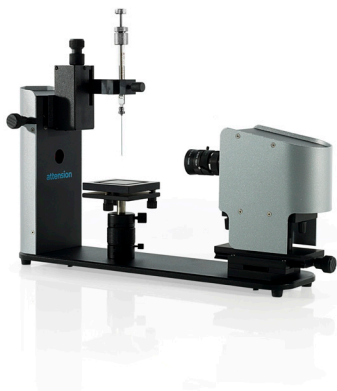
## Theta Lite Optical Tensiometer

### List of accessories

Theta Lite is a manual optical tensiometer able to measure contact angle, surface free energy and drop volume. It can also measure surface tension and interfacial tension (optional). Please find below a list of accessories that can add capabilities to your instrument.

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# Accessories

## 1. MEASURING CHAMBERS, TEMPERATURE PROBES AND BATHS/CIRCULATORS

### Measuring chamber, room temperature | ref. C202

Room temperature measuring chamber for environmental protection (e.g air flow) of substrate and drop. Max. diameter of substrate 75 mm.

### Measuring chamber, water bath heated 100°C | ref. C203W

Thermostatted water bath measuring chamber for air phase temperature control of substrate and drop. Requires water bath (e.g T102ME).

### Liquid/liquid measuring chamber, room temperature | ref. C217

Liquid/liquid measuring chamber for room temperature measurements. Can be used for liquid/liquid contact angle studies.

### Liquid/liquid measuring chamber, water bath controlled 100°C | ref. C217W

Thermostatted water bath liquid/liquid measuring chamber. Can be used for liquid/liquid contact angle studies. Requires water bath (e.g. T102ME).

Measuring chamber,  
room temperature  
ref. C202



Measuring chamber, water bath  
controlled 100°C  
ref. C203W



Liquid/liquid measuring chamber,  
room temperature or water bath  
controlled 100°C  
ref. C217 and C217W



### Digital thermometer | ref. T202

Battery operated with display and probe for temperature measurement directly from sample.

### Bath/circulator, Julabo F25-ME | ref. T102ME

A constant temperature stand-alone bath/circulator for sample temperature regulation. Temperature range -28 to +200°C. Stability  $\pm 0.01^\circ\text{C}$ . Digital readout. Bath opening 120x140mm, bath depth 140mm, volume 4.5L. Dimensions 230 x 420 x 610 (W,L,H).

*Note: Can be equipped with external PT100 temperature probe (T102MT) to maintain the desired temperature in the sample vessel. Please note that this is not possible with Julabo F12-MC or F12-ED.*

Bath/circulator Julabo F12  
(left) and F25 (right)  
ref. T102MC, T102ME, T102ED



### Temperature probe for the Julabo bath circulator F25ME (T102ME) | ref. T102MT

PT-100 temperature probe to enable temperature control by the T102ME in the sample vessel.



Temperature probe for  
Julabo F25ME  
ref. T102MT

### Bath/circulator, Julabo F 12-MC | ref. T102MC

A standalone constant temperature bath/circulator, for sample temperature regulation. Temperature range -20 to +200°C. Stability  $\pm 0.02^\circ\text{C}$ . Digital readout. Bath opening 130x150mm, bath depth 130mm, volume 4.5L. Dimensions 200 x 360 x 560 (W,L,H).

### Bath/circulator, Julabo F12-ED | ref. T102ED

A constant temperature stand-alone bath/circulator for sample temperature regulation. Temperature range -20 to +100°C. Stability  $\pm 0.03^\circ\text{C}$ . Digital readout. Bath opening 130x150mm, bath depth 130mm, volume 4.5L. Dimensions 200 x 360 x 560 (W,L,H).

## 2. CUVETTES

### Cuvette kit, for room temperature | ref. C208

A cuvette kit for measurement of interfacial tension between two liquids by pendant/raising drop method at room temperature. Includes cuvettes C208C and sample stage cuvette holder.

### Cuvettes, 1 quartz and 1 plastic | ref. C208C

1 optical quality quartz cuvette and 1 plastic cuvette.

### Cuvette kit with water bath thermostation | ref. C208W

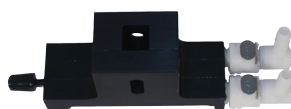
For measurement of interfacial tension between two liquids by pendant/raising drop method. Includes cuvettes C208C and water bath thermostatted sample stage cuvette holder. Requires water bath (e.g. T102ME).

### Cuvette for high temperature | ref. C208A

Cuvette for measurement of interfacial tension between two liquids by pendant/raising drop method at high temperature.



Cuvette kit, for room temperature  
ref. C208



Water bath thermostatted sample  
stage cuvette holder  
ref. C208W (includes also c208C)



Cuvette for high temperature  
ref. C208A

## 3. CALIBRATION

### Calibration ball, with certificate | ref. C216

Calibration kit with certified calibration ball made to NIST No. 821/263669-00 including original certificate document. Already provided with all Theta Lite systems.



Calibration ball  
ref. C216

### Contact angle and surface tension calibration kit | ref. C216A

Contact angle and surface tension calibration verification kit. Glass plate with contact angle and surface tension images. Comes with certification.



Contact angle and surface  
tension calibration kit  
ref. C216A

## 4. CONSUMABLES: PIPETTE TIPS, SYRINGES AND NEEDLES

Good to know

ITEM	MATERIAL	COMMON USAGE
Needles for liquid dispensers	Stainless steel	for general use
	Hydrophobic	for optimal dispensing of solvents that wet stainless steel

Precision syringe without needle, 1 ml | ref. C205

Stainless steel needle for C205 and C205A/C201, gauge 14 | ref. C209-14

Stainless steel needle for C205 and C205A/C201, gauge 22 | ref. C209-22

Stainless steel needle for C205 and C205A/C201, gauge 30 | ref. C209-30

Hydrophobic needle for C205 and C205A/C201, gauge 14, 20 pieces | ref. C209A-14

Hydrophobic needle for C205 and C205A/C201, gauge 22, 20 pieces | ref. C209A-22

Hooked stainless steel needle for C205 and C205A/C201 | ref. C210

For surface tension and interfacial tension measurements with the raising drop method, where the dispensed liquid is lighter than the liquid in cuvette.



Stainless steel hooked needle  
ref. C210

## 6. COMPUTER

Computer with pre-installed OneAttension Software | ref. C215

Theta compatible computer with OneAttension already installed.

## 7. MAINTENANCE & SERVICES

Start up and training | ref. STUP-EU, ref. STUP-NEU

Installation, on-site training and first customer sample measurements by an Attension specialist. Includes installation, aligning and calibration of one instrument and a training at the customer premises. All travel expenses are included in the price.

OneAttension upgrade | ref. 1A-UG

One time purchase of the latest available OneAttension software version.

Service contract level 1 | ref. SERV1

Two years instrument and customer specific service contract including all OneAttension upgrades published during the contract period. SERV1 requires that customer already have the latest OneAttension software.

Service contract level 2 | ref. SERV2

One year instrument and customer specific service contract including free software upgrades and an option to a full day maintenance visit during the contract period. Possible spare parts cost is excluded.

Extended warranty | ref. SERV3

One year instrument and customer specific extended warranty.

Specifications and appearance are subject to change without prior notice.  
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