

Precise measuring instruments  
for viscosity and surface science

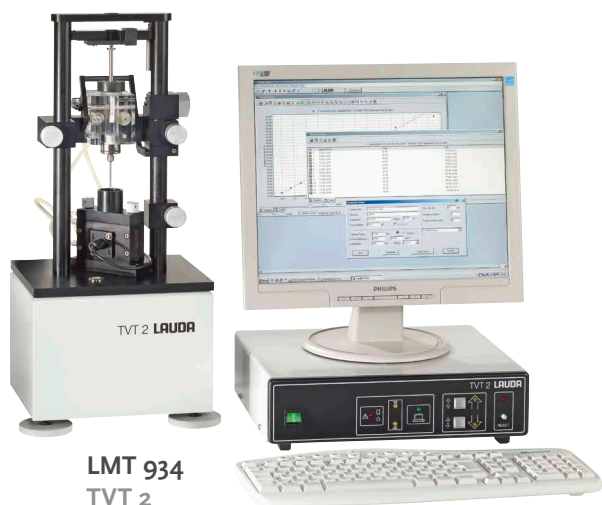
Product range 2022 / 2023

Version 2022-06-01

# Drop volume tensiometer TVT 2

Precise data. Constant values.

## TVT 2 drop volume tensiometer



The LAUDA Drop Volume Tensiometer TVT 2 is used to measure the surface and interfacial tension of liquids. Its strengths lies in the high-precision determination of dynamic interfacial tension.

The TVT 2 uses the fact that the volume of a drop released from a needle in air is dependent on its surface tension or on its interfacial tension between the two phases, if released into a second, immiscible phase (oil).

With the TVT 2, this measuring principle has been brought by LAUDA Scientific into a measuring device that is easy to use at the same time, thanks to precision engineering.

### Special Features:

- || Characterization of the dynamic behaviour of surfactant molecules at the surface and interface within seconds or hours
- || High-precision measuring of interfacial tensions in a very wide range down to very small values (0.1 mN/m)
- || Measurements on highly volatile and/or toxic substances through gas-tight system sealing
- || No wetting problems as occurs, for example, with ring, plate and frame methods
- || Low sample requirements (0.25...5 ml)
- || Simple thermostating options over a wide temperature range (5...90 °C)
- || Measurements of rising and falling drops
- || Syringes and needles for various applications
- || Highly viscous and skin-forming liquids are easily and rapidly measured

### Scope of delivery:

TVT 2 incl. software, RS232 cable and mains cable Schuko / EU (LMT 934)

### Including:

- || TVT 2 Electronic part (TMT 833)
- || TVT 2 Mechanical part (TMT 934)

### Included accessories:

- || Syringe 250 µl (EGP 007)
- || Standard needle SK1 (EGZ 005)
- || Cuvette standard (EGG 011)
- || Cuvette handling tool (UD 329)

## Accessories for drop volume tensiometer



EGP 006 | EGP 008 | EGP 007

### Syringes

- EGP 009 Syringe 250 µl
- EGP 010 Syringe 500 µl
- EGP 006 Syringe 1 ml
- EGP 007 Syringe 2,5 ml
- EGP 008 Syringe 5 ml
- DMU 013 Spare screw cap for needles
- EGG 011 Cuvette standard (50 x 50 x 10 mm)
- UD 329 Cuvette handling tool
- EKN 040 Mains cable for US

## Accessories for drop volume tensiometer

### Needles

**EGZ 005 Standard needle SK1**

Outer radius: 1.38 mm, inner radius: 1.08 mm

**EGZ 004 Standard needle SK2**

Outer radius: 1.05 mm, inner radius: 0.80 mm

**EGZ 006 Standard needle SK3**

Outer radius: 1.70 mm, inner radius: 1.35 mm

**EGZ 007 Standard needle SK4**

Outer radius: 0.63 mm, inner radius: 0.42 mm

**HX 453 Standard needle SK5**

Outer radius: 1.50 mm, glass

**HX 362 Aspiration tube**

For standard measurement

### Reverse measurement

**LMTZ908 Reverse measurement set**

**Including:** needle adapter (HX 410), reverse needle UK1 (HX 381), reverse needle UK2 (HX 380), reverse needle UK3 (HX 382), reverse needle UK4 (HX 441), suction tube (HX 383) and PTFE seal (HPR 159)

**HX 410 Needle adapter**

**HX 381 Reverse needle UK1**

Outer radius: 1.38 mm, inner radius: 1.08 mm

**HX 380 Reverse needle UK2**

Outer radius: 1.05 mm, inner radius: 0.80 mm

**HX 382 Reverse needle UK3**

Outer radius: 1.70 mm, inner radius: 1.35 mm

**HX 441 Reverse needle UK4**

Outer radius: 0.63 mm, inner radius: 0.42 mm

**HX 383 Suction tube (reversion)**

**HPR 159 PTFE seal**

### Temperature control

**L001249 LAUDA RE 415 S (230V / 50 Hz)**

Allows the measurement and the control of the temperature in the measuring cell in combination with temperature probe (US 055) and Pt 100 LiBus module (LRZ 918), other power supply variants on request

**LZS 007 Silicone tubing**

11 mm inner diameter (9 mm insulated), price per meter

**LRZ 918 Pt 100 LiBus module**

Plug-in unit for use with external temperature probe (US 055)

**US 055 Temperature probe for measuring cell**

**EKS 089 USB cable for ECO**



EGZ 007 | EGZ 06 | HX 453



LMTZ908  
Reverse measurement set



L001249  
LAUDA RE 415 S



US 055

Technical modifications, errors  
and omissions excepted.



[www.lauda-scientific.de/en](http://www.lauda-scientific.de/en)

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