LAUDA scientific

Precise measuring instruments for viscosity and surface science

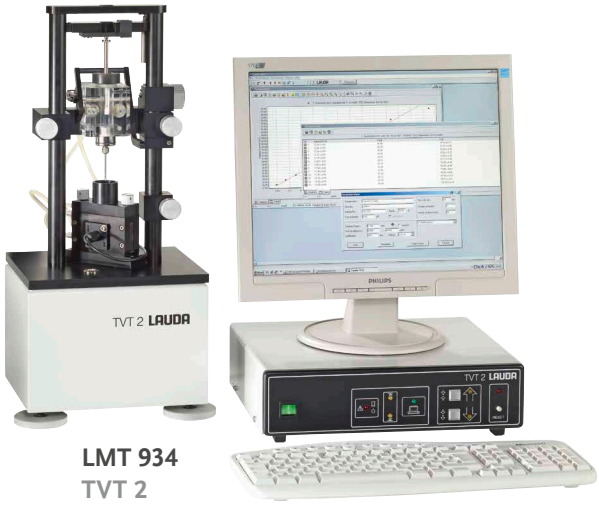
Product range 2023 / 2024

Version 2023-04-01

Drop volume tensiometer TVT 2

Precise data. Constant values.

TVT 2 drop volume tensiometer



LMT 934
TVT 2

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 (230 V / 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 006 | HX 453

LMTZ908
Reverse measurement set

L001249
LAUDA RE 415 S

US 055

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